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This document aims to give a comprehensive and easy-to-understand description of the Clean Development Mechanism (CDM). It should be noted that this document does not replicate in the exact manner all the texts agreed upon in the international negotiations. Also, there are issues yet to be settled in the international negotiations regarding detailed interpretations and processes. As for the details and exact expressions in the agreed texts, please refer to the respective documents available on the website of the United Nations Framework Convention on Climate Change <http://unfccc.int/>.

Special thanks to Ms. Hyun Kyung YIM and Ms. Maki KOZAKAI. Cover page designed by Ms. Megumi YAJIMA, IGES
# Abbreviations and Acronyms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAU</td>
<td>Assigned Amount Unit</td>
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<tr>
<td>ACM</td>
<td>Approved Consolidated Methodology</td>
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<tr>
<td>AE</td>
<td>Applicant Entity</td>
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<tr>
<td>AM</td>
<td>Approved Methodology</td>
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<tr>
<td>A/R CDM</td>
<td>Afforestation and Reforestation Project Activities under the Clean Development Mechanism</td>
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<tr>
<td>AR</td>
<td>Afforestation and Reforestation</td>
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<tr>
<td>CCS</td>
<td>Carbon dioxide Capture and Storage</td>
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<td>CDM</td>
<td>Clean Development Mechanism</td>
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<tr>
<td>CDM-AP</td>
<td>CDM Accreditation Panel</td>
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<td>CEF</td>
<td>Carbon Emission Factor</td>
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<tr>
<td>CER</td>
<td>Certified Emission Reduction</td>
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<tr>
<td>COP</td>
<td>Conference of the Parties (to the UNFCCC)</td>
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<tr>
<td>COP/MOP</td>
<td>the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol</td>
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<tr>
<td>CPA</td>
<td>CDM programme activity</td>
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<td>CPR</td>
<td>Commitment Period Reserve</td>
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<tr>
<td>DNA</td>
<td>Designated National Authority</td>
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<td>DOE</td>
<td>Designated Operational Entity</td>
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<td>EB</td>
<td>CDM Executive Board</td>
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<tr>
<td>EIT</td>
<td>Economies in Transition</td>
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<tr>
<td>ER</td>
<td>Emission Reduction</td>
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<td>ERT</td>
<td>Expert Review Team</td>
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<td>ERU</td>
<td>Emission Reduction Unit</td>
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<tr>
<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>GWP</td>
<td>Global Warming Potential</td>
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<tr>
<td>HFCs</td>
<td>Hydrofluorocarbons</td>
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<tr>
<td>IET</td>
<td>International emissions trading under the Kyoto Protocol</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>ITL</td>
<td>International Transaction Log</td>
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<td>JI</td>
<td>Joint Implementation</td>
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<tr>
<td>KP</td>
<td>Kyoto Protocol</td>
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<tr>
<td>LULUCF</td>
<td>Land Use, Land-Use Change and Forestry</td>
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<tr>
<td>MP</td>
<td>Methodologies Panel</td>
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<tr>
<td>NM</td>
<td>New Methodology</td>
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<tr>
<td>OE</td>
<td>Operational Entity</td>
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<tr>
<td>Party</td>
<td>Country or regional integration organization which has ratified the KP, unless otherwise specified</td>
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<tr>
<td>PDD</td>
<td>Project Design Document</td>
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<td>PFCs</td>
<td>Perfluorocarbons</td>
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<tr>
<td>PoA</td>
<td>Programme of Activities</td>
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<td>PP</td>
<td>Project Participant</td>
</tr>
<tr>
<td>RMU</td>
<td>Removal Unit</td>
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<tr>
<td>SAR</td>
<td>(the IPCC) 2nd Assessment Report</td>
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<tr>
<td>SBI</td>
<td>Subsidiary Body for Implementation</td>
</tr>
<tr>
<td>SBSTA</td>
<td>Subsidiary Body for Scientific and Technological Advice</td>
</tr>
<tr>
<td>SF₆</td>
<td>Sulfur Hexafluoride</td>
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<td>SOP</td>
<td>Share of Proceeds</td>
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<tr>
<td>SSC</td>
<td>Small Scale CDM</td>
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<tr>
<td>SSC-WG</td>
<td>Working group for small-scale CDM project activities</td>
</tr>
<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
</tr>
</tbody>
</table>
Tree Diagram of Contents

17. Small-scale CDM (SSC)
   - 17-1. Definition of a small-scale CDM project activity p42
   - 17-2. Simplified modalities and procedures p44
   - 17-3. Bundling of SSC p46

18. CDM Programme of activities p47

19. Afforestation and Reforestation CDM (A/R CDM)
   - 19-1. Overview of A/R CDM p48
   - 19-2. Non-permanence of A/R CDM (tCER and lCER) p49
   - 19-3. Calculation of GHG removals p52
   - 19-4. Small-scale A/R CDM p53

20. Registry and international transaction log (ITL)
   - 20-1. CDM registry p54
   - 20-2. National registry p55
   - 20-3. International transaction log (ITL) p57

Attachment 1. CDM documents
   - 1-1. Project Design Document (CDM-PDD) p58
   - 1-2. Proposed new baseline and monitoring methodology (CDM-NM) p60

Attachment 2. SSC documents
   - 2-1. Project Design Document for small-scale project activities (CDM-SSC-PDD) p61
   - 2-2. Forms for submission of bundled small-scale CDM project activities (F-CDM-SSC-BUNDLE) p62

Attachment 3. CDM Programme of activities related document form
   - 3-1. Programme of Activities Design Document Form (CDM-PoA-DD) p63
   - 3-2. CDM Programme Activities Design Document Form (CDM-CPA-DD) p64
   - 3-3. Small-Scale Programme of Activities Design Document Form (CDM SSC-PoA-DD) p65
   - 3-4. Small-Scale CDM Programme Activity Design Document Form (CDM-SSC-CPA-DD) p66

Attachment 4. A/R CDM documents
   - 4-1. Project Design Document for A/R project activities (CDM-AR-PDD) p67
   - 4-2. Proposed new baseline and monitoring methodology for A/R (CDM-AR NM) p69

Attachment 5. Methodological tools p70

Attachment 6. Tool for the demonstration and assessment of additionality (ver3) p72

Attachment 7. Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM0002 ver6) p74

Attachment 8. Using blended biofuel p79

Attachment 9. Clarifications regarding biomass
   - 9-1. Definition of renewable biomass p80
   - 9-2. Leakage in biomass SSC project activities p81

Attachment 10. Approved methodologies p82

Attachment 11. Global warming potential (GWP) and carbon emission factor (CEF) p87

Changes from previous version (Ver. 2.0 / July 2007) p88
## Glossary

Examples of abbreviated titles used in this document and corresponding formal document symbol and titles

<table>
<thead>
<tr>
<th>Examples of abbreviated titles used in this charts, shown in [ ]</th>
<th>Corresponding formal document symbol and title</th>
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</thead>
<tbody>
<tr>
<td>KP Art.2 para1(a)</td>
<td>The Kyoto Protocol, Article2, paragraph1(a)</td>
</tr>
<tr>
<td>CP/2001/13/Ad2, p1 para2(a)</td>
<td>FCCC/CP/2001/13/Add.2, page 1 paragraph 2(a)</td>
</tr>
<tr>
<td>CMP/2005/8/Ad1, p1 para2(a)</td>
<td>FCCC/KP/CMP/2005/8/Add.1, page 1 paragraph 2(a)</td>
</tr>
<tr>
<td>EB01 Rep, para1(a)</td>
<td>Executive Board of the Clean Development Mechanism, 1st Meeting Report, paragraph 1(a)</td>
</tr>
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<td>EB01 Anx1, para1(a)</td>
<td>Executive Board of the Clean Development Mechanism, Annex 1 to the 1st Meeting Report, paragraph 1(a)</td>
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<td>PDD GL ver6.2, p1</td>
<td>Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodologies (CDM-NM) Version 6.2, page 1 (Ver6.2 was published on 19 December 2006)</td>
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<td>SSC GL ver4, p1</td>
<td>Guidelines for Completing CDM-SSC-PDD, F-CDM-SSC-Subm and F-CDM-SSC-BUNDLE, Version 04, page 1 (Ver4 was published on 22 December 2006)</td>
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<tr>
<td>Glos ver1, p1</td>
<td>Glossary of CDM terms Version 01, page 1 (Ver1 was published on 18 December 2006)</td>
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</table>

Anx stands for Annex, Apx for Appendix, Att for Attachment, and Ann for Annotation.


CDM A/R M&P means Modalities and Procedures for Afforestation and Reforestation project activities under the CDM (Annex to Decision 19/CP.9) (FCCC/CP/2003/6/Add.2, p16-27)
1. The Kyoto Protocol

- The Kyoto Protocol was adopted at the 3rd session of the Conference of the Parties (COP3) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Kyoto, Japan, in December 1997.
- The Protocol defines quantified greenhouse gas (GHG) emissions reduction targets for Annex I Parties. [KP Art.3 para1]

GHGs defined by the Protocol are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), HFCs, PFCs, and SF₆. [KP AnXa]

Annex I Parties means those listed in Annex I of the UNFCCC. They are developed countries including Economies in Transitions, e.g. Russia and Eastern Europe.

Annex I Parties have different GHG emission ceilings for the 5-year period of 2008-2012 (1st commitment period).
- Emission ceiling which is called ‘assigned amounts’ for each Party is calculated as follows.
  “The base-year emissions” x “emission reduction target” x five [KP Art.3 para7]
- The base-year emissions are basically a Party’s aggregate GHG emissions in 1990 (whereas, countries may use 1995 as its base year for HFCs, PFCs, and SF₆). [KP Art.3 para1&8]

- The Protocol introduces 3 market mechanisms, namely the Kyoto Mechanisms. Annex I Parties would be able to achieve their emission reduction targets cost-effectively, by using these mechanisms.

  Joint Implementation (JI)  
  <Article 6 of the Protocol>

  Clean Development Mechanism (CDM)  
  <Article 12 of the Protocol>

  International Emissions Trading  
  <Article 17 of the Protocol>

- Besides Parties, private firms may use the Kyoto Mechanisms. [CMP/2005/Ad2, p7 para29][CMP/2005/Ad1, p13 para33][CMP/2005/Ad2, p19 para5]
  Provided the Parties meet eligibility requirements for using the Kyoto Mechanisms.

BOX: Entry into force of the Kyoto Protocol

The Kyoto Protocol shall enter into force on the 90th day after the date on which not less than 55 Parties to the UNFCCC, incorporating Annex I Parties which accounted in total for at least 55% of the total CO₂ emissions for 1990 of the Annex I Parties, have deposited their instruments of ratification, acceptance, approval or accession. [KP Art.25 para1]

- As of 6 June 2007, 174 countries and one regional economic integration organization (the EEC) have deposited instruments of ratifications, accessions, approvals or acceptances.
- 61.6% of the total CO₂ emissions for 1990 of the Annex I Parties have ratified the Protocol.

2. The Kyoto Mechanisms

2-1. The Clean Development Mechanism (CDM)

- Annex I Parties which have ceilings for GHG emissions (emission caps), assist non-Annex I Parties which don’t have emission caps, to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on emission reductions (or removals by sinks) achieved by the project activities.
  - A Party where CDM project is implemented, is called a host Party.
  - The credit from the CDM is called certified emission reduction (CER). [CMP/2005/8/Ad1, p7 para1(b)]
  - Reductions in emissions shall be additional to any that would occur in the absence of the certified project activity. [KP Art.12 para5(c)]
- Annex I Parties can use CERs to contribute to compliance of their quantified GHG emissions reduction targets of the Kyoto Protocol. [KP Art.12 para3(b)]
  - As a result, the amount of emission cap of Annex I Parties will increase.
- The CDM will issue CERs before the 1st commitment period.
  - CERs issued based on activities during the period from the year 2000 up to 2012 can be used in achieving compliance of Annex I Parties in the 1st commitment period. [KP Art.12 para10]
2-2. Joint Implementation (JI)

- Annex I Parties which have ceilings for GHG emissions (emission caps), assist other Annex I Parties to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on amount of emission reductions (or removals by sinks) achieved by the project activities.
  - A Party where JI project is implemented, is called a host Party.
  - The credit from the JI is called emission reduction unit (ERU). [CMP/2005/8/Ad1, p7 para1(a)]
  - Any such project shall provide a GHG emission reductions, or removals by sinks, that is additional to any that would otherwise occur. [KP Art.6 para1(b)]
- Annex I Parties can use ERUs to contribute to compliance of their quantified GHG emissions reduction targets of the Kyoto Protocol. [KP Art.6 para1]
  - The total amount of emission cap of Annex I Parties will not change, because JI is credits transfer between the Parties both of which have emission caps.
- ERUs will be issued only after 2008. [CMP/2005/8/Ad2, p2 para5]

- International Emissions Trading is to trade Kyoto Protocol units (KP units) including part of assigned amounts, CERs, ERUs and etc, between Annex I Parties.
  - The total amount of emission cap of Annex I Parties will not change.
  - Minimum trading unit is 1t-CO₂ equivalent.
- Through market mechanism, International Emissions Trading can decrease total cost of Annex I Parties to achieve their collective emission reduction targets.

### Without International Emissions Trading

<table>
<thead>
<tr>
<th></th>
<th>Party X</th>
<th>Party Y</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before ET: Emission cap</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Trading a KP unit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>After ET: Emission cap</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>GHG emissions</td>
<td>12</td>
<td>10</td>
<td>22</td>
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<tr>
<td>Necessary reduction</td>
<td>2</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Unit cost of reduction</td>
<td>$200</td>
<td>$100</td>
<td>-</td>
</tr>
<tr>
<td>Total cost of reduction</td>
<td>$400</td>
<td>$200</td>
<td>$600</td>
</tr>
<tr>
<td>Trading cost</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total compliance cost</td>
<td>$400</td>
<td>$200</td>
<td>$600</td>
</tr>
</tbody>
</table>

### With International Emissions Trading

<table>
<thead>
<tr>
<th></th>
<th>Party X</th>
<th>Party Y</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before ET: Emission cap</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Trading a KP unit</td>
<td>1</td>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>After ET: Emission cap</td>
<td>11</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>GHG emissions</td>
<td>12</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Necessary reduction</td>
<td>1</td>
<td>3</td>
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<td>Unit cost of reduction</td>
<td>$200</td>
<td>$100</td>
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<tr>
<td>Total cost of reduction</td>
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<td>Trading cost</td>
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<tr>
<td>Total compliance cost</td>
<td>$350</td>
<td>$150</td>
<td>$500</td>
</tr>
</tbody>
</table>

Note: Party Y sold a KP unit to Party X at $150.
Annex I Parties can trade following types of Kyoto Protocol units.

☞ **Assigned amount unit (AAU)** [CMP/2005/8/Ad1, p7 para1(c)]
   ⇒ Total amount of AAUs of an Annex I Party is calculated from its base year emissions and emission reduction target

☞ **Removal unit (RMU)** [CMP/2005/8/Ad1, p7 para1(d)]
   ⇒ Total amount of RMUs of an Annex I Party is calculated from net removal of GHGs by afforestation and reforestation (A/R) activities [CMP/2005/8/Ad3, p5 para1(a)-(d)] and additional activities related to GHG removals by sinks [CMP/2005/8/Ad3, p5 para1(e)-(h)]

☞ **Emission reduction unit (ERU) from JI**

☞ **Certified emission reduction (CER) from the CDM**

☞ **Temporary CER (tCER) and long-term CER (ICER)**
   ⇒ tCER and ICER are issued from afforestation and reforestation (A/R) CDM project activities. [CMP/2005/8/Ad1, p62 para1(g)-(h)]

2. The Kyoto Mechanisms

**BOX: Compliance assessment**
GHG emission cap of an Annex I Party at the end of the 1st commitment period is as follows.

\[
\text{Emission cap of Annex I Party} = \text{AAUs} + \text{RMUs} + (\text{Acquired credits from JI and the CDM} + \text{ERUs+CERs+tCERs+ICERs}) \pm A\text{cquired and transferred KP units by International Emissions Trading}
\]

**Carry-over**
If an emission cap of an Annex I Party is more than its GHG emissions during the 1st commitment period, the surplus can be carried over to the subsequent commitment period. [CMP/2005/8/Ad2, p27 para15] [CMP/2005/8/Ad2, p30 para36]
☞ The end of additional period is the 100th day after the date set by the COP/MOP. [CMP/2005/8/Ad3, p101 XIII]
☞ There are several restrictions for carry-over depending on the type of KP units.

**Consequence of non compliance**
◆ If GHG emissions during the 1st commitment period of an Annex I Party is more than its emission cap, the Annex I Party will be deemed to be non compliance to the Kyoto Protocol.
◆ The Party not in compliance shall be applied the following consequences. [CMP/2005/8/Ad3, p102 para5]
  ☞ Deduction from the Party’s assigned amount for the 2nd commitment period of a number of tonnes equal to 1.3 times the amount in tonnes of excess emissions;
  ☞ Development of a compliance action plan; and
  ☞ Suspension of the eligibility to make transfers under Article 17 of the Protocol until the Party is reinstated.
3. CDM project cycle

(1) Planning a CDM project activity

- CDM project participants (PPs) plan a CDM project activity. (chap. 5)
  - There are several conditions in order to be registered as a CDM project activity, and PPs should consider those conditions from a planning stage.

(2) Preparing the project design document (PDD)

- PPs prepare the project design document (CDM-PDD) for a CDM project activity. (chap. 6)
  - The CDM-PDD presents information on the essential technical and organizational aspects of the project activity and is a key input into the validation, registration, and verification of the project.
  - The CDM-PDD contains information on the project activity, the approved baseline methodology applied to the project, and the approved monitoring methodology applied to the project.

(3) Getting approval from each Party involved

- PPs shall get written approvals of voluntary participation from the designated national authority (DNA) of each Party involved, including host Party. (chap. 9)
  - A Party involved is a Party that provides a written approval. [Glos ver1, p21]
  - The registration of a project activity can take place without an Annex I Party being involved at the stage of registration. [EB18 Rep, para57]
  - The details of approval procedure is up to each Party.
- PPs may get written approvals in step (1), (2) or even (4)
  - But PPs must get written approvals at least from host Party before a request for registration.

(4) Validation

- Validation is the process of independent evaluation of a project activity against the requirements of the CDM on the basis of the PDD. [CMP/2005/8/Ad1, p14 para35]
  - Validation is carried out by a designated operational entity (DOE).
  - There is a formal procedure for validation. (chap. 10)

(5) Registration

- Registration is the formal acceptance of a validated project as a CDM project activity. [CMP/2005/8/Ad1, p14 para36]
  - Registration is done by the CDM executive board (EB).
  - There is a formal procedure for request for registration. (chap. 11)
  - PPs shall pay registration fee at registration stage.
3. CDM project cycle

(6) Monitoring a CDM project activity

- PPs collect and archive all relevant data necessary for calculating GHG emission reductions by a CDM project activity, in accordance with the monitoring plan written in the PDD.
  - Monitoring plan can be revised. (chap.12)

(7) Verification and certification

- Verification is the periodic independent review and ex post determination of the monitored GHG emission reductions.
  - Verification is carried out by a designated operational entity (DOE).
  - There is a formal procedure for verification. (chap.13)

(8) Issuance of CERs

- Certification is the written assurance by a DOE that a project activity achieved the reductions in GHG emissions as verified.
  - Certification is also done by a DOE.

(9) Distribution of CERs

- The EB will issue certified emission reductions (CERs) equal to the verified amount of GHG emission reductions.
  - There is a formal procedure for issuance of CERs. (chap.13)
  - The issuance of CERs, in accordance with the distribution agreement, shall be effected only when the share of proceeds to cover administrative expenses (SOP-Admin) of the CDM has been received.
  - Among issued CERs, 2% of those will be deducted for the share of proceeds to assist developing Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation (SOP-Adaptation).

- CERs will be distributed among PPs. (chap.15)
  - The decision on the distribution of CERs from a CDM project activity shall exclusively be taken by PPs.
4. CDM-related bodies

4-1. COP/MOP

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) [CMP/2005/8/Ad1, p7 para2-4]:
- Has authority over and provides guidance to the CDM;
- Decides on the recommendations made by the EB on its rules of procedure, and in accordance with provisions of decision 17/CP.7 [CP/2001/13/Ad2 p20-49], the present annex and relevant decisions of the COP/MOP;
- Decides on the designation of operational entities (OEs) accredited by the EB;
- Reviews annual reports of the EB;
- Reviews the regional and subregional distribution of designated operational entities (DOEs) and CDM project activities;
- Assists in arranging funding of CDM project activities, as necessary.

BOX: Revision of the modalities and procedures for the CDM [CMP/2005/8/Ad1, p6 para4]
- Revision of the modalities and procedures for the CDM shall be decided in accordance with the rules of procedure of the COP/MOP.
  ⇒ The 1st review shall be carried out no later than 1 year after the end of the 1st commitment period
  ⇒ The 1st review shall be carried out based on recommendations by the EB and by the SBI drawing on technical advice from the SBSTA, as needed.
  ⇒ Further reviews shall be carried out periodically thereafter.
- Any revision of the decision shall not affect clean development mechanism project activities already registered.

4-2. Designated National Authority (DNA)

♦ Parties participating in the CDM shall set up a designated national authority (DNA) for the CDM. [CMP/2005/8/Ad1, p12 para29]
- CDM project participants (PPs) shall receive written approval of voluntary participation from the DNA of each Party involved.
  - The written approval shall include confirmation by the host Party that the project activity assists it in achieving sustainable development. [CMP/2005/8/Ad1, p15 para40(a)]
  - The details of approval procedure is up to each Party.
4-3. CDM Executive Board (EB)

♦ The EB supervises the CDM, under the authority and guidance of the COP/MOP [CMP/2005/8/Ad1, p8 para5], and shall:
☞ Make recommendations to the COP/MOP on further modalities and procedures for the CDM and/or any amendments or additions to rules of procedure for the EB, as appropriate;
☞ Approve new methodologies related to, inter alia, baselines, monitoring plans and project boundaries;
☞ Review provisions with regard to simplified modalities, procedures and the definitions of small scale CDM (SSC) project activities, and if necessary, makes appropriate recommendations to the COP/MOP;
☞ Be responsible for the accreditation of operational entities (OEs), and make recommendations to the COP/MOP for the designation of OEs.
☞ Make any technical reports to the public and provide a period of at least 8 weeks for public comments on draft methodologies and guidance;
☞ Develop and maintain the CDM registry;
☞ Formally accept a validated project as a CDM project activity (registration); [CMP/2005/8/Ad1, p14 para36]
☞ Instruct to issue CERs for a CDM project activity to the CDM registry administrator; [CMP/2005/8/Ad1, p19 para66]
☞ Etc.

♦ Activities of the EB, and approved rules, procedures, methodologies and standards related to the CDM can be downloaded from <http://cdm.unfccc.int/>.

Members of the EB [CMP/2005/8/Ad1, p9 para7-12]
☞ The EB comprises 10 members from Parties to the KP.
☞ 1 member from each of the 5 UN regional groups, 2 other members from the Annex I Parties, 2 other members from the non-Annex I Parties, and 1 representative of the small island developing States.
☞ The 5 regional groups of the UN are: Asia, Africa, Latin America, Eastern Europe, and the Western European and Others Group
☞ As a result, 4 are from Annex I Parties and 6 are from non-Annex I Parties, unless 1 member from Asia is selected from Japan.
☞ There is an alternate for each member of the EB.
☞ Members, including alternate members, of the EB are nominated by the relevant constituencies referred above, and be elected by the COP/MOP.
☞ Vacancies shall be filled in the same way.
☞ Members are elected for a period of 2 years and be eligible to serve a maximum of 2 consecutive terms.
☞ Terms as alternate members do not count.
☞ 5 members and 5 alternate members are elected initially for a term of 3 years, and other members and alternate members for a term of 2 years. Thereafter, the COP/MOP elects, every year, 5 new members, and 5 new alternate members, for a term of 2 years.
☞ The EB elects its own chair and vice-chair, with one being a member from an Annex I Party and the other being from a non-Annex I Party.
☞ The positions of chair and vice-chair alternate annually between a member from an Annex I Party and a non-Annex I Party.

Meeting and decision of the EB [CMP/2005/8/Ad1, p10 para13-16]
☞ The EB meets as necessary but no less than 3 times a year.
☞ At least 2/3 of the members of the EB, representing a majority of members from Annex I Parties and a majority of members from non-Annex I Parties, must be present to constitute a quorum.
☞ Decisions by the EB is taken by consensus, whenever possible. If that is not possible, decisions shall be taken by 3/4 majority of the members present and voting at the meeting. Members abstaining from voting shall be considered as not voting.
☞ Meetings of the EB are open to attendance, as observers, except where otherwise decided by the EB.
4-4. Panels and Working Groups

- The EB may establish committees, panels or working groups to assist it in the performance of its functions. The EB shall draw on the expertise necessary to perform its functions, including from the UNFCCC roster of experts. In this context, it shall take fully into account the consideration of regional balance. [CMP/2005/8/Ad1, p.10 para 18]
- The EB has established following panels and working groups so far. <http://cdm.unfccc.int/EB/panels>

**CDM executive board (EB)**

**Meth Panel (MP)**
- Methodologies Panel
  - The MP is responsible for recommendations to the EB on baseline and monitoring methodologies, revisions to the PDD, etc. [EB30 Anx3, para 2-3]
  - 2 members of the EB will act as Chair and vice Chair of the panel, respectively. In addition to the designated EB members, the panel shall be composed of 16 members. [EB30 Anx3, para 5] [EB33 Rep, para 34]

**SSC WG**
- Working group for small-scale CDM project activities
  - The SSC WG is responsible for recommendations to the EB on baseline and monitoring methodologies for small-scale project activity, etc. [EB23 Anx20, para 1]
  - 2 members or alternate members of the EB will act as Chair and Vice-Chair of WG, respectively. In addition to the Chair and Vice-Chair, the WG shall be composed of 5 members, 2 of whom are members from the Meth Panel. [EB23 Anx20, para 3]

**AR WG**
- Working group on afforestation and reforestation project activities
  - The AR-WG is responsible for recommendations to the EB on baseline and monitoring methodologies for A/R CDM, revisions to the PDD for A/R CDM, etc. [EB23 Anx14, para 2-3]
  - 2 members or alternate members of the EB will act as Chair and Vice-Chair of the WG, respectively. In addition to the Chair and Vice-Chair, the WG shall be composed of 8 members. [EB23 Anx14, para 5] [EB31 Rep para 48]

**EB-RIT**
- Registration and Issuance Team
  - EB-RIT serves to prepare appraisals of requests for registration and issuance of CERs assessing whether their requirements are met and/or appropriately dealt with by DOEs for consideration by the EB. [EB29 Anx14, para 5]
  - The RIT is composed of not less than 20 members. [EB29 Anx14, para 7]

**CDM-AP**
- CDM accreditation panel
  - The CDM-AP is responsible for recommendations to the EB on the accreditation of an applicant OE, suspension, withdrawal and/or re-accreditation of accreditation of a DOE, etc. [EB23 Anx1, para 4-5]
  - The CDM-AP also carries out selecting the members of a CDM accreditation assessment team (CDM-AT).
  - In addition to the designated EB members who act as chair and vice chair, the panel shall be composed of 7 members. [EB23 Anx1, para 13] [EB33 Rep, para 16]

**CDM-AT**
- CDM accreditation assessment team
  - The CDM-AT shall undertake an assessment of the applicant and/or DOEs and prepare an assessment report for the CDM-AP.
  - A team shall be composed of a team leader and at least 2 team members chosen to serve in a team for an assessment at a time. [EB09 Anx1]
4-5. Designated Operational Entity (DOE)

A DOE under the CDM:
☞ Is either a domestic legal entity or an international organization accredited and designated, on a provisional basis until confirmed by the COP/MOP, by the EB.
☞ Has two key functions:
⇒ It validates and subsequently requests registration of a proposed CDM project activity
⇒ It verifies emission reduction of a registered CDM project activity, certifies as appropriate and requests the EB to issue Certified Emission Reductions (CERs) accordingly.

Upon request, the EB may allow a single DOE to perform all these functions within a single CDM project activity. [CMP/2005/8/Ad1, p12 para27(e)]

Procedure for accrediting OEs [EB32 Anx2, para3]
☞ The COP/MOP designates operational entities (OEs) based on a recommendation by the EB.
☞ The EB takes the decision whether or not to accredit an AE and recommend it to the COP/MOP for designation.
☞ The CDM-AP is responsible for preparing a recommendation to the EB regarding the accreditation of an AE based on assessment work conducted by a CDM-AT.
☞ The CDM-AP is also responsible for preparing recommendations regarding unscheduled surveillance, re-accreditation and accreditation for additional sectoral scope(s).
☞ The CDM-AP provides guidance to and approves the work plan of each CDM-AT.
☞ A CDM-AT, under the guidance of the CDM-AP, undertakes the detailed assessment of an AE and/or DOE. A CDM-AT shall be established by the CDM-AP which draws members from a roster of experts established by the EB for this purpose.

The validity of accreditation
☞ The accreditation of the OE for any “sectoral scope” shall be valid for 3 years from the date of accreditation by the EB. The designation by the COP/MOP shall be valid until the expiry date of the accreditation.
☞ A regular surveillance shall be undertaken within this 3-year-period. [EB32 Anx2, para70]
☞ The EB is authorized to conduct “spot-check” activities (i.e. unscheduled surveillance) of DOEs at any time. [EB32 Anx2, para89]

4. CDM-related bodies

The terms used in DOE related official documents are:
☞ Applicant entity (AE) = once application has been duly submitted/subject to a procedure;
☞ Designated operational entity (DOE) = after designation by COP/MOP.
[EB32 Anx2, p2 footnote]

Phasing of accreditation [EB32 Anx2, para7-8]
☞ The accreditation of an OE may be undertaken in phases, both in functions and sectoral scope(s) and shall be recommended on the basis of sectoral groups.
☞ The phasing of accreditation depends on the successful completion of a witnessing activity for a particular sectoral group and size (large or small) of the project activity.
☞ The successful completion of a witnessing activity in one function (e.g. validation) for a group of sectoral scopes (sectoral group) may allow the entity to be eligible for accreditation for the other function (e.g. verification) in the same and concerned sectoral group(s).
☞ An entity can only be accredited for its both functions, i.e validation and verification/certification, if a witnessing activity in a sectoral scope has been successfully undertaken, on the basis of one large scale project activity.
Suspension or withdrawal of a DOE [CMP/2005/8/Ad1, p11 para21]

The EB may recommend to the COP/MOP to suspend or withdraw the designation of a DOE if it has carried out a review and found that the entity no longer meets the accreditation standards or applicable provisions in decisions of the COP/MOP.

☞ The EB may recommend the suspension or withdrawal of designation only after the DOE has had the possibility of a hearing.

☞ The suspension or withdrawal is with immediate effect, on a provisional basis, once the EB has made a recommendation, and remains in effect pending a final decision by the COP/MOP.

☞ The affected entity shall be notified, immediately and in writing, once the EB has recommended its suspension or withdrawal.

☞ The recommendation by the EB and the decision by the COP/MOP on such a case shall be made public.

⇒ It is assumed that if the COP/MOP decides the affected DOE meets the accreditation standards, the DOE will recover from its suspension or withdrawal.

Affect to registered CDM project activities by the suspension or withdrawal of designation of a DOE [CMP/2005/8/Ad1, p11 para22-24]

☞ Registered project activities shall not be affected by the suspension or withdrawal of designation of a DOE unless significant deficiencies are identified in the relevant validation, verification or certification report for which the entity was responsible.

⇒ There is no clear definition of “significant deficiencies.”

☞ In this case, the EB shall decide whether a different DOE shall be appointed to review, and where appropriate correct, such deficiencies.

⇒ Any costs related to the review shall be borne by the DOE whose designation has been withdrawn or suspended.

☞ If such a review reveals that excess CERs were issued, the DOE whose accreditation has been withdrawn or suspended shall acquire and transfer, within **30 days** of the end of review, an amount of reduced tonnes of CO₂ equivalent equal to the excess CERs issued, as determined by the EB, to a cancellation account in the CDM registry.

⇒ Any suspension or withdrawal of a DOE that adversely affects registered project activities shall be recommended by the EB only after the affected PPs have had the possibility of a hearing.
4-6. Project Participants (PPs)

♦ Participation in a CDM project activity is voluntary. [CMP/2005/8/Ad1, p12 para28]
♦ A PP is (a) a Party involved, and/or (b) a private and/or public entity authorized by a Party involved to participate in a CDM project activity. [Glos ver1, p22]

A Party involved
☞ A non-Annex I Party may participate in a CDM project activity if it is a Party to the Kyoto Protocol. [CMP/2005/8/Ad1, p12 para30]
☞ “Party involved” is only considered a PP if this is clearly indicated in section A.3 of the PDD or, in case of registered projects, if the secretariat is explicitly informed of this in accordance with modalities of communication. [EB25 Rep, para110]

A private and/or public entity
☞ Private and/or public entities may only transfer and acquire CERs if the authorizing Party is eligible to do so at that time. [CMP/2005/8/Ad1, p13 para33]
☞ A written approval constitutes the authorization by a designated national authority (DNA) of specific entity(ies)’ participation as project proponents in the specific CDM project activity. [Glos ver1, p6]

A change of PPs [Glos ver1, p24]
☞ A change of PPs shall immediately be communicated to the EB through the secretariat in accordance with the modalities of communication.
☞ The indication of change shall be signed by all PPs of the previous communication and by all new and remaining PPs.
☞ Each new PP needs authorization, as required.

Participation by a fund [Glos ver1, p6]
Multilateral funds do not necessarily require written approval from each participant’s DNA. However those not providing a written approval may be giving up some of their rights and privileges in terms of being a Party involved in the project.
4-7. Modalities of communication

**Procedures for public communication with the EB** [EB31 Anx37]
- Relevant communications received by the EB which are not in response to a call for input (hereinafter referred to as unsolicited communications) may only be taken into consideration at its next meeting if received before the documents submission deadline (2 weeks prior to the meeting).
- Any unsolicited communication received after this deadline would be considered, as appropriate, at a subsequent meeting.
- The Chair of the EB shall assess if an unsolicited communication and the response is to be sent in addition via listserv to the EB.
- Unsolicited communications should be addressed to the Chair of the EB and sent to the UNFCCC secretariat via email (cdm-info@unfccc.int or secretariat@unfccc.int) or fax (number +49. 228. 815.1999).
- If a member or alternate member of the EB, in that capacity, receives an unsolicited communication, he/she shall forward it to the secretariat, copying the sender of the unsolicited communication, for processing as per the above. The same shall apply for submissions received by members of panels or working groups.

**Modalities of communication of PPs with the EB** [Glos ver1, p19]
- The modalities of communication between PPs and the EB are indicated at the time of registration by submitting a statement signed by all PPs.
- All official communication from and to PPs, after a request for registration is submitted by a DOE, shall be handled in accordance with these modalities of communication.

**BOX: Confidential/proprietary information** [Glos ver1, p12]
- Information obtained from PPs marked as proprietary or confidential shall not be disclosed without the written consent of the provider of the information, except as required by national law.
- Information used to determine additionality, to describe the baseline methodology and its application, and to support an environmental impact assessment shall not be considered as proprietary or confidential.
- PPs shall submit documentation that contains confidential and proprietary information in one marked up version where all confidential/proprietary parts shall be made illegible by the PPs, and a second version containing all information which shall be treated as strictly confidential by all handling this documentation.
5. Conditions for CDM projects

♦ When planning a CDM project activity, it is necessary to keep in mind following points:
  ♦ The purpose of the CDM shall be to assist non-Annex I Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Annex I Parties in achieving compliance with their commitments. [KP Art.12 para2]
  ⇒ It is the host Party’s prerogative to confirm whether a CDM project activity assists it in achieving sustainable development. [CP/2001/13/Ad2, p20]
  ♦ A CDM project activity is additional if GHG emissions are reduced below those that would have occurred in the absence of the registered CDM project activity; [CMP/2005/8/Ad1, p16 para43]
  ♦ Annex I Parties are to refrain from using CERs generated from nuclear facilities to meet their quantified GHG emissions reduction targets; [CP/2001/13/Ad2, p20]
  ♦ The eligibility of land use, land-use change and forestry project activities under the CDM is limited to afforestation and reforestation (A/R); [CP/2001/13/Ad2, p22 para7(a)]
  ♦ Public funding for CDM projects from Annex I Parties is not to result in the diversion of official development assistance (ODA) and is to be separate from and not counted towards the financial obligations of Annex I Parties. [CP/2001/13/Ad2, p20]
  ⇒ Annex I Parties shall provide an affirmation that such funding does not result in a diversion of ODA and is separate from and is not counted towards the financial obligations of those Parties. [PDD GL ver6.2, p9]
  ⇒ There is also the document "ODA Eligibility of Expenditures under the Clean Development Mechanism" which was endorsed at the DAC High Level Meeting on 15-16 April 2004. [DAC/CHAIR(2004)4/FINAL]
  ♦ It is necessary to prepare a project design document (PDD) in order to be registered as a CDM project activity.
  ♦ The contents of PDD is described in Attachment 1-3.

**BOX: CDM project activities under a programme of activities** [CMP/2005/8/Ad1, p97 para20]
  ♦ Local/regional/national policy or standard cannot be considered as a CDM project activity
  ♦ But that project activities under a programme of activities can be registered as a single CDM project activity provided that approved baseline and monitoring methodologies are used that, inter alia, define the appropriate boundary, avoid double counting and account for leakage, ensuring that the emission reductions are real, measurable and verifiable, and additional to any that would occur in the absence of the project activity. (chap.18)

**BOX: Carbon dioxide capture and storage (CCS)**
  ♦ The COP/MOP decided to requests the EB to continue to consider proposals for new methodologies, including the PDD for CCS in geological formations as CDM project activities. Approval of such methodologies by the EB can occur only after further guidance from the COP/MOP. [CMP/2006/10/Ad1, p6 para19]
  ♦ The COP/MOP requested the SBSTA, at its 27th session, to prepare recommendations on CCS in geological formations as CDM project activities for consideration by COP/MOP3, with a view to taking a decision at the COP/MOP4. [CMP/2006/10/Ad1, p7 para24]
Examples of guidance and clarifications regarding methodological issues

**Guidance on transfer of know-how and training** [EB23 Rep, para80]
The EB agreed that transfer of know-how and training, as such, cannot be considered as CDM project activities. The eligibility of project activities that are a result of the transfer of know-how and training shall be based only on measurable emission reductions which are directly attributable to these project activities.

**Guidance on bunker fuels** [EB25 Rep, para58]
The EB agreed to confirm that the project activities/parts of project activities resulting in emission reductions from reduced consumption of bunker fuels (e.g. fuel saving on account of shortening of the shipping route on international waters) are not eligible under the CDM.

**Guidance regarding the treatment of “existing” and “newly built” facilities** [EB8 Anx1, para10]
If a proposed CDM project activity seeks to retrofit or otherwise modify an existing facility, the baseline may refer to the characteristics (i.e. emissions) of the existing facility only to the extent that the project activity does not increase the output or lifetime of the existing facility. For any increase of output or lifetime of the facility which is due to the project activity, a different baseline shall apply.

**Definition of thresholds in terms of power density for hydroelectric power plants** [EB23 Anx5]
Noting the scientific uncertainties concerning GHG emissions from reservoirs and that these uncertainties will not be resolved in the short term, a simple and transparent criteria, based on thresholds in terms of power density (installed power generation capacity divided by the flooded surface area: W/m²), are to be used to determine the eligibility of hydroelectric power plants for CDM project activities. The thresholds are as follows:
- Power densities less than or equal to 4 W/m² cannot use current methodologies;
- Power densities greater than 4 W/m² but less than or equal to 10 W/m² can use the currently AMs, with an emission factor of 90 gCO2eq/kWh for project reservoir emissions;
- Power densities greater than 10 W/m² can use current AMs and the project emissions from the reservoir may be neglected.
6. Making PDD

Identifying a type of CDM project activities

Is it a GHG emission reduction project activity eligible for the CDM? (chap.5)

Yes → Is it eligible for a small-scale CDM project activity? (chap.17-1)

No → Is it a programme of activities eligible for the CDM? (chap.18)

Yes → Is it eligible for a small-scale CDM programme of activity?

No → Is it a GHG removal by aforestation and reforestation project activity eligible for the CDM? (chap.19-1)

Yes → Is it eligible for a small-scale aforestation and reforestation CDM project activity? (chap.19-4)

No →

Identifying a PDD form

Project Design Document (CDM-PDD) (Att.1-1)

PDD for small-scale project activities (CDM-SSC-PDD) (Att.2-1)

CDM Programme Activities (CDM-PoA-DD) (CDM-CPA-DD) (Att.3-1/3-2)

Small-Scale CDM Programme Activity (CDM SSC-PoA-DD) (CDM-SSC-CPA-DD) (Att.3-3/3-4)

PDD for A/R project activities (CDM-AR-PDD) (Att.4-1)

PDD for small-scale A/R project activities (CDM-SSC-AR-PDD)

Skip the rest (similar to the steps written in the below diagram)

Determining a baseline and monitoring methodology

Is there an approved methodology (AM) applicable to the project activity? (chap.7-3)

No → Request for clarifications to an AM (chap.7-6)

Answers

Yes → Request for deviation (chap.14)

Approval

Request for a revision of an AM (chap.7-5)

Approval

Submission of a proposed new methodology (NM) (chap.7-4)

Writing CDM-PDD by applying an AM
7. Baseline

7-1. Concept of the baseline and additionality

♦ The baseline (scenario and emissions) for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity. [CMP/2005/8/Ad1, p16 para44]

Difference between the baseline emissions and GHG emissions after implementing the CDM project activity (project emissions) is emission reductions.

☞ A baseline (scenario and emissions) shall be established:
(a) By PPs in accordance with provisions for the use of approved and new methodologies;
(b) In a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors and additionality, and taking into account uncertainty;
(c) On a project-specific basis;
(d) In the case of small-scale CDM project activities, in accordance with simplified procedures developed for such activities;
(e) Taking into account relevant national and/or sectoral policies and circumstances, such as sectoral reform initiatives, local fuel availability, power sector expansion plans, and the economic situation in the project sector. [CMP/2005/8/Ad1, p16 para45]

Before calculating baseline emissions, it is necessary to identify baseline scenarios.

A baseline (emissions) shall cover emissions from all gases, sectors and source categories within the project boundary. [CMP/2005/8/Ad1, p16 para44]

♦ A CDM project activity is additional if GHG emissions are reduced below those that would have occurred in the absence of the registered CDM project activity. [CMP/2005/8/Ad1, p16 para43]

⇒ The DOE shall review the PDD to confirm that the project activity is expected to result in a reduction in GHG emissions that are additional to any that would occur in the absence of the proposed project activity. [CMP/2005/8/Ad1, p14 para37(d)]

♦ PPs have to write explanation of how and why this project activity is additional and therefore not the baseline scenario in accordance with the selected baseline methodology. [PDD GL ver6.2, p11]

⇒ If the starting date of the project activity is before the date of validation, provide evidence that the incentive from the CDM was seriously considered in the decision to proceed with the project activity. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available at, or prior to, the start of the project activity. [PDD GL ver6.2, p11]

♦ “The tool for the demonstration and assessment of additionality” provides a general framework for demonstrating and assessing additionality. PPs may also propose other tools for the demonstration of additionality. [EB22 Anx para1]

BOX: Wording

PPs shall refrain from providing glossaries or using key terminology not used in the COP documents and the CDM glossary (environment/investment additionality). [EB09 Anx3, para3]
7-2. Baseline scenario

♦ The baseline scenario for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity. [Glos ver1, p10]
♦ Different scenarios may be elaborated as potential evolutions of the situation existing before the proposed CDM project activity.
  ➕ The continuation of a current activity could be one of them;
  ➕ Implementing the proposed project activity may be another;
  ➕ And many others could be envisaged.
♦ Baseline methodologies shall require a narrative description of all reasonable baseline scenarios.
♦ To elaborate the different scenarios, different elements shall be taken into consideration.
  ➕ For instance, the PPs shall take into account national / sectoral policies and circumstances, ongoing technological improvements, investment barriers, etc.
♦ The baseline scenario may include a scenario where future GHG emissions are projected to rise above current levels, due to the specific circumstances of the host Party. [CMP/2005/8/Ad1, p16 para46]

Clarifications on the treatment of national and/or sectoral policies and regulations in determining a baseline scenario

The EB agreed to differentiate the following 2 types of national and/or sectoral policies that are to be taken into account when establishing baseline scenarios: [EB22 Anx3]

**Type E+** That give comparative advantages to more emissions-intensive technologies or fuels.

- Only national and/or sectoral policies or regulations that have been implemented before adoption of the Kyoto Protocol (11 December 1997) shall be taken into account when developing 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.

**Type E-** That give comparative advantages to less emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programs).

- National and/or sectoral policies or regulations that have been implemented since the adoption by the COP of the CDM M&P(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.)
7. Baseline

7-3. Baseline methodology

♦ Baseline emission under the selected baseline scenarios shall be calculated by PPs in accordance with approved methodologies (AMs) or new methodologies (NMs).

♦ No methodology is excluded a priori so that PPs have the opportunity to propose any methodology. [Glos ver1, p7]

A baseline methodology approved by the EB is publicly available along with relevant guidance on the UNFCCC CDM website (http://unfccc.int/cdm). [Glos ver1, p8]

DOEs can submit queries regarding the applicability of approved methodologies.

If a DOE determines that a proposed project activity intends to use a new baseline methodology, it shall, prior to the submission for registration of this project activity, forward the proposed methodology to the EB for review, i.e. consideration and approval, if appropriate. [EB32 Anx13, para2]

There is “Technical Guidelines for the Development of New Baseline and Monitoring Methodologies version 01”. [EB24 Anx16]

♦ It is needed to ensure consistency between baseline scenario derived by baseline methodology and the procedure and formulae used to calculate baseline emissions. [PDD GL ver6.2, p24]

Baseline approach (para 48 of the CDM M&P) [Glos ver1, p7][CMP/2005/8/Add1, p16 para48]

A baseline approach is the basis for a baseline methodology. The EB agreed that the 3 approaches be the only ones applicable to CDM project activities:

(a) Existing actual or historical emissions, as applicable; or

(b) Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment; or

(c) The average emissions of similar project activities undertaken in the previous 5 years; in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category. <See [EB08 Anx1 para4-5] for guidance>

BOX: Temporarily result in “negative emission reductions” [EB21 Rep, para18]

In some cases and for some methodologies, project activities may temporarily result in “negative emission reductions” in a particular year, for example due to poor performance or due to leakage effects outweighing emission reductions.

In these cases, proposed NMs should stipulate that if a project activity temporarily results in “negative emission reductions”, any further CERs will only be issued when the emissions increase has been compensated by subsequent emission reductions by the project activity.

Box: Proposed project activities applying more than one methodology [EB08 Anx1, para6]

If a proposed CDM project activity comprises different “sub-activities” requiring different methodologies, PPs may forward the proposal using one CDM-PDD but shall complete the methodologies sections for each “sub-activity”.
7-4. Procedures for the submission of a proposed new methodology (NM)

(1) The new baseline and monitoring methodologies (NMs) shall be proposed and approved together. The form “CDM-NM” is to be used to propose a NM, accompanied by a draft PDD with sections A-C completed, including relevant annexes. The CDM-NM form for several NMs may be submitted together with the same CDM-PDD for several components of a proposed project. [EB24 Anx16, para1]

(2) A DOE/AE may voluntarily undertake a pre-assessment of a proposed NM before submitting it. If a voluntary pre-assessment has been undertaken, no pre-assessment by the Meth Panel, as referred in (5), is needed.

The submitted methodology may be in such case be considered as received after (3) and (4) is completed.

(3) A fee of USD 1,000 shall be charged to PPs when submitting a proposed NM for regular project activities.
☞ If a methodology is approved and the project activity for which it was developed is registered, the registration fee shall be lowered by that amount.
☞ If the proposed methodologies are incorporated in consolidations or in existing AMs, the fee shall be refunded.
☞ Not applicable to methodologies for small-scale and afforestation and reforestation project activities.

(4) The secretariat checks that documentation provided by the DOE is complete and the proof of payment of the submission fee has been received. The secretariat shall prepare a draft pre-assessment using the form “F-CDM-NMs”, for a period of 15 working days. Comments are forwarded to the MP at the moment of receipt and made available to the public at the end of the 15 working day period.

(5) This member of the MP is to assess the quality of the submission and grade it as being 1 and 2 in accordance with the criteria for pre-assessment as contained in the form (F-CDM-NMas).
☞ If the grade is 2, the documentation is to be sent back to the PPs who may resubmit it as a proposed NM, along with a fee of USD 1000.
☞ If the grade is 1, the documentation is considered as received by the EB, and be forwarded by the secretariat for consideration of the EB and the MP.

The date of receipt of the proposed NM

(6) At the same time, the secretariat makes the proposed NM publicly available on the UNFCCC CDM web site and invite public inputs, using the form “F-CDM-NMp”, for a period of 15 working days. Comments are forwarded to the MP at the moment of receipt and made available to the public at the end of the 15 working day period.

(7) Upon receipt of a proposed NM, 4 members of the MP, one as lead who is responsible for presenting the case at the meeting, review the draft recommendation prepared by the secretariat.
☞ Members are selected on a rotational basis in alphabetical order to independently.
☞ The secretariat is responsible for compiling different inputs, and prepare draft recommendations for consideration by the MP.
☞ The secretariat may request the PPs to make additional technical information necessary with a deadline for responding.

(8) The Chair and the Vice-Chair of the MP, with the assistance of the secretariat and in consultation with the 4 selected MP members, shall, no later than 7 working days after the receipt of the proposed NM, select 2 experts from a roster of experts who are to undertake a desk review to appraise the validity of the proposed NM, being one the lead reviewer. The two reviewers should provide inputs independently.

(9) Each desk reviewer forwards his/her recommendation to the MP independently, wherever possible, within 10 working days after having received a proposed NM using lead expert desk review form “F-CDM-NMexit_3d” and second expert desk review form “F-CDM-NMexit_2d”.

(10) The MP prepares its preliminary recommendation regarding the approval of the proposed NM to the EB using the forms “F-CDM-NMmp” and “F-CDM-NMSUMmp”.
☞ Prior to preparing the preliminary recommendation, the secretariat may request on behalf of the MP, copying the selected members and the DOE, the PPsto make available additional technical information necessary to further clarify or assist in analyzing the proposed NM with a deadline for response.
☞ Any additional technical information provided by PPs to the MP are made available to the EB and to the public soon after its receipt by the secretariat.

(11) The MP, through the secretariat, and via the DOE, forwards its preliminary recommendation to PPs.
7. Baseline

7-4. Procedures for the submission of a proposed NM

(12) Within a timeframe stipulated by the Chair of the MP (but not exceeding 4 weeks), after the receipt of the preliminary recommendation of the MP by the PPs, the PPs may submit (copying the DOE), clarifications to the MP, through the secretariat, on technical issues concerning the proposed NM raised in the preliminary recommendation by the MP. Technical clarifications provided by the PPs shall include the revisions, in the form “CDM-NM” in a highlighted form.
☞ Clarifications provided by the project participants shall be made available to the EB and to the public soon after they have been received by the secretariat.

(13) If PPs provide clarifications related to the preliminary recommendation by the MP, the MP considers these clarifications at its next meeting and prepare its final recommendation to the EB.
☞ The final recommendation shall be forwarded to the EB and made publicly available.

(14) The EB shall consider a proposed NM at the next meeting following the receipt of the final recommendation regarding the approval (“A” case) or non-approval (“C” case) of the proposed NM by the MP.
☞ The EB shall expeditiously, if possible at its next meeting but not later than 4 months after the date of receipt of the proposed NM, review the proposed NM in accordance with the CDM M&P.

Once approved by the EB, it shall make the approved methodology (AM) publicly available and the DOE may proceed with the validation of the project activity and submit the PDD for registration.

There is “Modifications to the methodologies consideration process”. [EB32 Anx12]
7. Baseline

7-5. Procedures for the revision of an approved methodology (AM)

Request for revisions to AM [EB30 Anx1, para 5-9]
♦ The revision of AM may be carried out in response to requests by a PP, relevant stakeholders, the EB, the MP or WGs in accordance with the latest version of the procedures.
♦ A request for revision is suited for situations where:
☞ An AM is not applicable to a project activity but the project activity is broadly similar to the project activities to which the AM is applicable;
⇒ Similarity is based on the nature (technology/measure) of the project activity and sources of the emissions affected by the project activity. For example, the AM may not be applicable as the source of emissions affected by the project activities are the same but the technology/measure used in the project activity is not covered under the applicability conditions.
☞ Or the procedures provided in the methodology for estimating emissions from sources are not applicable because of slight variations in the approach, flow of events or structure chosen in the project activity.
♦ Should no AM be appropriate, then a revision to an AM could be requested.
☞ In this case significant changes are required to the AM for it to be applicable to all possible project scenarios, without which inter alia:
⇒ The application of the methodology to the proposed project activity would be inappropriate, resulting in an incorrect definition of the project boundary, double counting, an inaccurate account of leakage, emission reductions that are either not real, measurable, verifiable or additional to those that would occur in the absence of the project activity.

If the request for revision to an AM is likely to result in the addition of new procedures or scenarios to more than half of the sections of an AM, it is advisable that project participants propose a NM as per procedures for submission and consideration of proposed NM accordance with the latest version of the procedures (chap.7-4)

The request for revisions shall not include changes to the AM that would result in the exclusion, restriction, narrowing of the applicability conditions of the AMs for other project activities. Should the request result in the above the PP is advised to submit a NM.

There is “Guidance on criteria for consolidations and revision of methodologies”. [EB27 Anx10]
The revision of an AM or tool shall not affect (i) registered CDM project activities during their crediting period; and (ii) project activities that have been published for public comments for validation using the previous AM or tool, so long as the project activity is submitted for registration within 8 months of the date when the revision became effective.

The date of revision shall be effective 14 calendar days as of the date of publication on the UNFCCC website (24h00 GMT), which shall be within 5 calendar days after the date of publication of the report of the EB.

Information on a request for revision of an AM is made available in the UNFCCC CDM web site.

If the EB considers that the possible revision of the methodology could have significant implications for the use of the methodology, the EB may agree to suspend the use of the methodology, by putting it “on hold”, with immediate effect. Project activities which use this methodology but have not been submitted for registration within 4 weeks after the methodology “on hold”, will not be able to use the methodology until the EB has decided on any revision of the methodology.

If the EB puts a methodology “on hold”, a revised methodology should be approved not later than at the 3rd meeting of the EB after it has agreed to put the methodology “on hold”.

These procedures shall apply mutatis mutandis to approved methodologies for A/R project activities and approved small scale methodologies.
7. Baseline

7-6. Procedures for request for clarifications to approved methodologies (AMs)

When to request for clarifications to AM

[EB30 Anx1, para3-4]

♦ The clarifications to approved methodologies (AMs) may be carried out in response to requests by a project participant (PPs) or relevant stakeholders or may be carried out in response to requests recommended by the EB, MP or WGs in accordance with the latest version of the procedures.

♦ The procedure for request for clarification is provided to enable the DOEs, and PPs via the DOE, to seek clarification on the applicability of an AM, clarification on various procedures provided in an AM, inter alia for identifying the baseline scenario, demonstrating additionality, estimating baseline emissions, project emissions, leakage, etc. and in clarifying monitoring data and procedures.

♦ Should a methodology be unclear or ambiguous in this regard requiring further background information as to the conditions under which it is to be applied, PPs are advised to submit a request for clarification.

[EB32 Anx15][Version 3]

(1) If DOEs wish to submit queries regarding the applicability of approved methodologies (AMs) to the MP, they shall complete the form "F-CDM-AM-Subm" for submission of queries regarding the application of AMs and submit it to the secretariat.

(2) The secretariat shall:
☞ forward the query to the Meth Panel (MP) listserv,
☞ post the query in a common extranet page for the DOEs and the MP,
☞ forward it to the EB,
☞ and make publicly available through the UNFCCC CDM web site.

(3) A query regarding the application of an AM shall be available to the MP at least 6 weeks prior to its next meeting in order to be considered by the meeting.

The Chair shall assess when queries are to be considered by the MP depending on the workload of the MP.

(4) The Chair shall select at least one member to oversee preparation of a draft recommendation and a draft answer be the secretariat for the consideration of the MP.
☞ The recommendation and answer shall be drafted using form “F-CDM-AM-Subm”.
☞ Draft recommendations shall be made available to the MP’s consideration at least 1 weeks before the next MP meeting.

(5) Once the MP agrees on a final recommendation and answers to queries by DOEs, they shall be:
☞ forwarded to the DOEs by the secretariat.
☞ posted in a common extranet page for the DOEs and the MP,
☞ forwarded to the EB,
☞ and made publicly available through the UNFCCC CDM web site and in the historical record of the AM concerned.
8. Other items in the project design document (PDD)

8-1. Project boundary and leakage

**Project Boundary**

♦ The project boundary shall encompass all anthropogenic GHG emissions by sources under the control of the PPs that are significant and reasonably attributable to the CDM project activity. [CMP/2005/8/Ad1, p17 para52]

☞ The Meth Panel (MP) shall develop specific proposals for consideration by the EB on how to operationalize the terms “under the control of,” “significant” and “reasonably attributable.” [Glos ver1, p22]

☞ Pending decisions by the EB on these terms, PPs are invited to explain their interpretation of such terms when completing and submitting the CDM-NM.

**Leakage**

☞ Leakage is defined as the net change of GHG emissions which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity. [CMP/2005/8/Ad1, p17 para51]

⇒ In an operational context, the terms measurable and attributable should be read as “which can be measured” and “directly attributable”, respectively. [Glos ver1, p19]

☞ Reductions in GHG emissions shall be adjusted for leakage in accordance with the monitoring and verification provisions. [CMP/2005/8/Ad1, p17 para50]

8-2. Monitoring plan

♦ Monitoring refers to the collection and archiving of all relevant data necessary for determining the baseline, measuring GHG emissions within the project boundary of a CDM project activity and leakage, as applicable. [Glos ver1, p19]

♦ A monitoring plan for a proposed project activity shall be based on a previously approved monitoring methodology or a new methodology. [CMP/2005/8/Ad1, p17 para54]

♦ Revisions, if any, to the monitoring plan to improve its accuracy and/or completeness of information shall be justified by PPs and shall be submitted for validation to a DOE. [CMP/2005/8/Ad1, p18 para57]

☞ The EB requested the secretariat to prepare draft procedures to facilitate the changes in monitoring plans of registered CDM project activities. [EB25 Rep, p18 para109]

☞ A monitoring methodology approved by the EB and made publicly available along with relevant guidance. [Glos ver1, p19]

☞ PPs may propose a new monitoring methodology.

⇒ The new baseline and monitoring methodologies (NMs) shall be proposed and approved together.

BOX: Conditions of use of measurement instruments in the monitoring [EB23 Rep, para24]

☞ The specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the PDD, along with detailed quality assurance and quality control procedures.

☞ In addition standards recommended shall either be national or international standards.

☞ The verification of the authenticity of the uncertainty levels and instruments are to be undertaken by the DOE during the verification stage.

☞ A zero check cannot be considered as a substitute for calibration of the measurement instrument. [EB24 Rep, para37]
8-3. Crediting period

- CERs shall only be issued for a crediting period starting after the date of registration of a CDM project activity. [CP/2001/13/Ad2, p23 para12]
- PPs select a crediting period for a proposed project activity from one of the following alternative approaches
  - [CMP/2005/8/Ad1, p17 para49]: A maximum of 7 years which may be renewed at most 2 times.
    - For each renewal, a DOE determines and informs the EB that the original project baseline is still valid or has been updated taking account of new data where applicable.
  - A maximum of 10 years with no option of renewal.
- GHG emission reductions since 2000 may be eligible to claim CERs. [CP/2001/13/Ad2, p23 para13]

Regarding the procedures and documentation which need to be used for the renewal of a crediting period, the EB agreed that at the start of the 2nd and 3rd crediting period for a project activity, assessing the continued validity of the baseline and updating the baseline, need to be addressed. [EB20 Anx7, para1] (chap.16)

Indicating the starting date of the crediting period [EB24 Anx31, para4-5]
- PPs shall state in the PDD the starting date of the crediting period in the format dd/mm/yyyy, no qualifications, e.g. "expected", can be made to this date.
- PPs shall specify only one starting date for the crediting period, even in cases of phased implementation.

The starting date of a CDM project activity does not need to correspond to the starting date of the crediting period for this project activity. Therefore project activities starting as of 1 January 2000 may be validated and registered as a CDM project activity after 31 December 2005. [EB21 Rep, para63]

The starting date of a CDM project activity is the date at which the implementation or construction or real action of a project activity begins [Glos ver1, p25]. It has always been the EB’s view that the start date of a CDM project activity is the earliest of the dates at which the implementation or construction or real action of the project activity begins [EB33 Rep, papa76].
8. Other items in the PDD

8-3. Crediting period

**Requesting changes to the starting date of the crediting period [EB24 Anx31, para6-9]**

- PPs in projects for which the starting date of the crediting period is prior to the date of registration (i.e. project claiming retroactive credits) cannot request changes in the starting date of the crediting period.
- PPs of projects for which the starting date of the crediting period is after the date of registration may:
  - (a) Inform the secretariat that the starting date of the crediting period be moved to a date up to 1 year earlier than the one indicated in the PDD, provided that this date is not earlier than the date of registration of the project activity;
  - (b) Inform the secretariat to delay the starting date of the crediting period by up to 1 year;
  - (c) Make a request to the secretariat, via a DOE, that the starting date of the crediting period be delayed by more than 1 year but no more than 2 years by submitting to the secretariat:
    - confirmation from a DOE that no changes have occurred which would result in a less conservative baseline and that substantive progress has been made by the PPs to start the project activity;
    - confirmation from the Host Party that the revision to the crediting period will not alter the project’s contribution to sustainable development.
- The secretariat will consider requests made under (c), in consultation with the Chair of the EB, before making the requested change to the start of the crediting period.
- PPs may only make use of provisions of (a), (b) or (c) above once for each registered project activity.
- For the case of a request for a change in the starting date of the crediting period of a project activity for which CERs have already been issued, procedures above apply and that the secretariat can proceed to make the change as requested. [EB25 Rep, para105]

**Treatment of the lifetime of plants and equipment in proposed new baseline methodologies [EB22 Anx2, para4-9]**

Where a project activity involves the replacement or retrofit of existing equipment or facilities, it is reasonable to assume that emission reductions shall only be accounted from the date of replacement until the point in time when the existing equipment would have been replaced in the absence of the project activity or the end of crediting period, whatever is earlier.

In order to estimate the point in time when the existing equipment would need to be replaced in the absence of the CDM, a new methodology may consider the following approaches:
- A sector and/or activity specific method or criteria to determine when the equipment would be replaced or retrofitted in the absence of the CDM;
- The typical average technical lifetime of the type equipment may be determined and documented, taking into account common practices in the sector and country, e.g. based on industry surveys, statistics, technical literature, etc.;
- The practices of the responsible entity/PPs regarding replacement schedules may be evaluated and documented, e.g. based on historical replacement records for similar equipment.
9. Approval from each Party involved

Approval by Parties involved [Glos ver1, p6]

- The DNA of a Party involved in a proposed CDM project activity shall issue a statement including the following:
  - The Party has ratified the Kyoto Protocol.
  - The approval of voluntary participation in the proposed CDM project activity.
  - In the case of Host Party(ies): statement that the proposed CDM project activity contributes to sustainable development of the Host Party(ies).

- The written approval shall be unconditional with respect to the above.
- A written approval from a Party may cover more than one project provided that all projects are clearly listed in the letter.
- The DOE shall receive documentation of the approval.

⇒ The registration of a project activity can take place without an Annex I Party being involved at the stage of registration.
⇒ Before an Annex I Party acquires CERs from such a project activity from an account within the CDM registry, it shall submit a letter of approval to the EB in order for the CDM Registry administrator to be able to forward CERs from the CDM registry to the Annex I national registry. [EB18 Rep, para57]
⇒ This is so called “unilateral CDM project.”

BOX: Contents of actual approval letters

- An approval letter is addressed and sent to PPs.
- In most cases, an approval letter is the same with an authorization letter. (chap.4-6)
  ⇒ In some cases, a DNA authorizes an entity in another country.
- In some cases, a DNA sets conditions on issues other than unconditional issues.
  ⇒ For example, conditions on amount of CERs to be transferred, validity of the approval, the rejection of an unilateral CDM project, the requirement of reports to a DNA, etc.
- In some cases, an official approval letter is written in the original language and validated with a seal, while an unofficial English translation is attached.
10. Validation  

10-1. Procedures for validation

CDM project participants (PPs)

1. Select a DOE for validation from a list of DOEs and contract with them. [CMP/2005/8/Ad1, p14 para37]

2. Submit a PDD and any supporting documentation to the DOE.

Designated operational entity (DOE)

3. Review the PDD to confirm that the requirements for the CDM have been met. [CMP/2005/8/Ad1, p14 para37]

4. Establish a web site where CDM-PDDs shall be made publicly available in PDF format with a link to the UNFCCC CDM web site; or directly publicly available on the UNFCCC CDM web. Submit the following information to be made publicly available:
   a. The name of the proposed CDM project activity
   b. The address of the web page where the CDM-PDD will be found or the CDM-PDD which would be made available on the UNFCCC CDM web site.

5. a) In case the DOE is accredited for all sectoral scope(s), the secretariat, through the CDM information system, makes automatically available the link to the web page of the DOE or the CDM-PDD on the UNFCCC CDM web site. The system will forward the announcement to the DOE.
   b) In case the DOE is not accredited for all sectoral scope(s), the secretariat shall determine within 3 days whether the proposed project activity has been accepted as a witnessing opportunity. If it is accepted, step (5 a) will apply. If it is not accepted, the secretariat will initiate appropriate steps within the accreditation procedure.

6. Receive comments from Parties, stakeholders and accredited NGOs within 30 days. [CMP/2005/8/Ad1, p15 para40(c)] The DOE promptly acknowledges receipt of comments. Specify how comments on a PDD are communicated providing both e-mail and fax details. Display at the end of the 30 days period all comments received.
   ⇑ In cases where during validation of a project activity the PPs wish to change (a) the methodology applied from one AM to another and/or (b) the version of a methodology applied due to the expiry of the version originally applied, after the PDD was available to the public, the DOE shall make publicly available again, for 30 days, the CDM-PDD. [EB25 Rep, para92-93]

7. Make a determination whether the project activity should be validated. [CMP/2005/8/Ad1, p15 para40(d)]

UNFCCC secretariat

5. In case the DOE is accredited for all sectoral scope(s), the secretariat, through the CDM information system, makes automatically available the link to the web page of the DOE or the CDM-PDD on the UNFCCC CDM web site. The system will forward the announcement to the DOE.

6. Receive comments from Parties, stakeholders and accredited NGOs within 30 days. [CMP/2005/8/Ad1, p15 para40(c)] The DOE promptly acknowledges receipt of comments. Specify how comments on a PDD are communicated providing both e-mail and fax details. Display at the end of the 30 days period all comments received.
   ⇑ In cases where during validation of a project activity the PPs wish to change (a) the methodology applied from one AM to another and/or (b) the version of a methodology applied due to the expiry of the version originally applied, after the PDD was available to the public, the DOE shall make publicly available again, for 30 days, the CDM-PDD. [EB25 Rep, para92-93]

7. Make a determination whether the project activity should be validated. [CMP/2005/8/Ad1, p15 para40(d)]

Registration Procedure

May be reconsidered for validation and subsequent registration, after appropriate revisions. [CMP/2005/8/Ad1, p16 para42]

Inform PPs of reasons for non-acceptance

Inform PPs of confirmation of validation. [CMP/2005/8/Ad1, p15 para40(e)]
10. Validation

10-2. Validation requirements

The DOE selected by PPs to validate a project activity, being under a contractual arrangement with them, shall review the PDD and any supporting documentation to confirm that the following requirements have been met. [CMP/2005/8/Ad1, p14 para37]

☞ The participation requirements, as follows, are satisfied;
   ➔ Participation in a CDM project activity is voluntary. Parties participating in the CDM shall designate a national authority (DNA) for the CDM. A non-Annex I Party may participate in a CDM project activity if it is a Party to the Kyoto Protocol.
   ➔ Comments by local stakeholders have been invited, a summary of the comments received has been provided, and a report to the DOE on how due account was taken of any comments has been received;
   ➔ PPs have submitted to the DOE documentation on the analysis of the environmental impacts of the project activity or an environmental impact assessment in accordance with procedures as required by the host Party;
   ➔ The project activity is expected to result in GHG reductions that are additional to any that would occur in the absence of the proposed project activity;
   ➔ The baseline and monitoring methodologies comply with requirements pertaining to methodologies previously approved by the EB, or modalities and procedures for establishing a new methodology;
   ➔ Provisions for monitoring, verification and reporting are in accordance with the CDM M&P and relevant decisions of the COP/MOP;
   ➔ The project activity conforms to all other requirements for CDM project activities in CDM M&P and relevant decisions by the COP/MOP and the EB.

Validation Report [CMP/2005/8/Ad1, p15 para40]

The DOE shall:

☞ Prior to the submission of the validation report to the EB, have received from the PPs written approval of voluntary participation from the DNA of each Party involved, including confirmation by the host Party that the project activity assists it in achieving sustainable development;
☞ In accordance with provisions on confidentiality above, make publicly available the PDD;
☞ Submit to the EB, if it determines the proposed project activity to be valid, a request for registration in the form of a validation report including the PDD, the written approval of the host Party, and an explanation of how it has taken due account of comments received;
☞ Make this validation report publicly available upon transmission to the EB.

BOX: Revisions to AM and validation

[EB27 Rep, para29]

☞ In cases where during validation of a project activity the PPs have to change the version of a methodology applied due to the expiry of the version originally applied after the PDD was available to the public for comments (note the PDD is to be made public as received from PPs), the DOE shall make publicly available, for 30 days, the CDM-PDD unless otherwise specified in the corresponding revised methodology if the PP make this change within the grace period.
11. Registration

11-1. Procedures for registration

Designated operational entity (DOE)

(1) Prepare validation report using the “CDM project activity registration and validation report form (F-CDM-REG)” including the PDD, the written approval of the host Party and an explanation of how it has taken account of comments received on the PDD.

(2) Submit all required documents for a request for registration, except for the proof of payment of the registration fee, using the electronic, internet-based, submission tool provided by the secretariat to each DOE.

(3) Upon submission of the required information, a DOE receives automatically a unique reference number which is used to identify the bank transfer of the registration fee. A DOE submits, using the submission tool, the proof of payment which indicates the unique reference number.

UNFCCC secretariat

(4) Determine whether the submission by the DOE is complete.

(5) After the registration fee has been received and the secretariat has determined that the submission by a DOE is complete, the “request for registration” shall be considered received and make publicly available, at the latest on the day, through the UNFCCC CDM web site for a period of 8 weeks. The secretariat conveys the announcement of this publication, including the name of the proposed CDM project activity, the first and last day of the 8-week period and the location on the UNFCCC CDM web site.

CDM executive board (EB)

(7) Whether a Party involved in the project activity or at least 3 members of the EB request a review of the proposed CDM project activity within 8 (4 for SSC) weeks after the date of receipt of the request for registration.

Yes

The review by the EB shall be finalized no later than at the 2nd meeting following the request for review. The decision and the reasons for it are communicated to the PPs and the public.

No

Can be registered

Registration as CDM project activity.

Marked in the UNFCC CDM web site as “registration completed”. The registered CDM project activity and related documents are displayed as registered and made publicly available in accordance with provisions on confidentiality.

Rejection

May be reconsidered for validation and subsequent registration, after appropriate revisions. [CMP/2005/8/Ad1, p16 para42]

(8) Registration as CDM project activity.

(6) The secretariat shall identify for each request for registration the RIT member.

⇒ The member assigned to undertake the task will be informed and shall have a maximum of 2 days to indicate whether they have or not a conflict of interest.

The appraisal shall indicate whether validation requirements have been met and/or appropriately dealt with by the DOE. The member shall prepare an appraisal using the form “F-CDM-REGappr” submit it within 20 (15 for small-scale) calendar days to the secretariat.

The secretariat shall prepare, on the basis of the member’s appraisal, a summary note of the request for registration and forward this, together with the appraisal, to the EB within 10 (5 for small-scale) calendar days of receiving the member’s appraisal. [EB29 Anx14, para21-25]
11. Registration

11.2. Procedures for review of registration

(1) Request for review

By a Party involved in a proposed CDM project activity

A request for review shall be sent by the relevant DNA to the EB, through the secretariat, using official means of communication (such as recognized official letterhead and signature or an official dedicated e-mail account).

The secretariat acknowledges the receipt of a request for review and promptly forward the request to the EB via the list-serve.

☞ A review shall be related to issues associated with the validation requirements. A request for review shall be specific in this regard.

☞ A request for review shall include the CDM project activity registration review form (F-CDM-RR) and provide reasons, including any supporting documentation.

☞ A request for review is considered to be received by the EB as of the date it has been received by the secretariat, and not be considered if it is received after 17:00 GMT of the last day of the 8-week period after the receipt of the request for registration.

As soon as a Party involved or 3 EB members request a review of a proposed project activity, the following action are taken:

(a) The consideration of a review of the proposed project activity shall be included in the proposed agenda of the next EB meeting;

(b) The EB notifies the PPs and the DOE that a review has been requested, and inform about the date and venue of the next and subsequent EB meetings at which the request for review will be considered. Stakeholders interested in the review process also be given opportunity to attend the EB meeting;

⇒ PPs and the DOE, when being notified of the request for review, shall be invited to submit comments to the EB on issues raised within 2 weeks but not later than 2 week before the meeting. These inputs shall be made publicly available.

⇒ An RIT member shall prepare an appraisal of these inputs with regard to issues identified in the requests for review.

⇒ The secretariat, under the guidance of the Chair of the EB, shall prepare a decision sheet for consideration of the EB.

(c) The PPs and the DOE shall each provide a contact person for the review process;

(d) The proposed project activity will be marked as being “under review” on the UNFCCC CDM web site and a notification be sent through the News facility.

By a member of the EB

A request for review shall be made by notifying the EB.

(2) Scope and modalities of review

☞ The EB considers and decides, at its next meeting, either to undertake a review or register as a CDM project activity.

☞ If the EB agrees to undertake a review, it decides on the scope of the review and the composition of a review team, at the same meeting. The review team consists of 2 EB members and outside experts, as appropriate.

☞ The review team requests further information to the DOE and PPs and analyze information received.

(3) Review process

☞ The decision by the EB on the scope of the review is made publicly available as part of the report of its meeting.

☞ A request for further information is sent to the DOE and the PPs. Answers shall be submitted to the review team, through the secretariat, within 5 working days after the receipt of the request for clarification.

⇒ The 2 EB members prepare the recommendation to be forwarded to the EB via list serve at least 2 weeks before the next EB meeting.

(4) Review decision

☞ The review by the EB shall be finalized no later than at the 2nd meeting following a request for review.

☞ The EB decides on whether: to register the proposed project activity; to request the DOE and PPs to make corrections before proceeding with registration; or to reject it.

☞ The EB shall communicate the decision to the public.

☞ If the review indicates any issues relating to performance of the DOE, the EB considers whether or not to trigger a spot-checking of the DOE.

BOX: Coverage of costs of the request for review

The EB bears the costs for reviewing. If the EB rejects the registration and if a DOE is found in the situation of malfeasance or incompetence, the DOE shall reimburse the EB for the expenses. This provision is subject to review as experience accrues. [EB29 Anx15, para21]
11.3. Registration fee

Registration fee of the CDM project activity [EB23 Anx35]

♦ PPs shall pay registration fee at registration stage.
♦ The revised registration fee shall be the share of proceeds to cover administrative expenses (SOP-Admin) applied to the expected average annual emission reduction for the project activity over its crediting period.
☞ SOP-Admin is USD 0.10/CER issued for the first 15,000 t-CO2 and USD 0.20/CER issued for any amount in excess of 15,000 t-CO2, for which issuance is requested in a given calendar year.
☞ The maximum registration fee shall be USD 350,000.
☞ No registration fee has to be paid for CDM project activities with expected average annual emission reduction over the crediting period below 15,000 t-CO2.

Example of registration fee

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<tr>
<th>Expected average annual emission reduction</th>
<th>Registration fee</th>
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♦ The DOE shall include a statement of the likelihood of the project activity to achieve the anticipated emission reductions stated in the PDD. This statement will constitute the basis for the calculation of the registration fee. [EB11 Anx6, para2]

11. Registration

BOX: Withdrawn of PDD-published project activity

☞ The EB agreed that where a PP listed in the PDD published at validation is not included in the PDD submitted for registration, the DOE shall provide a letter from the withdrawn PP confirming its voluntary withdrawal from the proposed project activity, and address this issue in its validation report. [EB30 Rep, para41]
12. Revising monitoring plan

- The CDM modalities and procedures allow PPs to revise monitoring plans in order to improve accuracy and/or completeness information, subject to the revision being validated by a DOE. [CMP/2005/8/Ad1, p18 para57]
- A request for revision of the monitoring plan is made by the DOE in advance of request for issuance of CERs.
- The request for revising monitoring plan is made in cases where:
  - the monitoring plan in the registered CDM project activity document is found not to be consistent with the approved monitoring methodology applied to the registered project activity; or
  - the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revision. [EB31 Anx14 para14-15]

Applicability of the revised monitoring plan [EB26 Anx34 para4]
PPs shall implement the monitoring plan contained in the registered PDD. PPs may only apply a revised monitoring plan once it has been accepted by the Chair of the MP in consultation with the Chair of the EB in accordance with this procedure.

Performing validation [EB26 Anx34 para5]
The DOE shall prepare and submit to the secretariat via a dedicated interface on the CDM website a validation opinion including information on how:
- the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revisions;
- the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity;
- the findings of previous verification reports, if any, have been taken into account.

Processing of applications [EB26 Anx34 para6-9]
The secretariat shall carry out a completeness check of the documentation submitted and when deemed complete assign the proposed revision to a member of the RIT to prepare an appraisal.
The appraisal shall be submitted to the secretariat within a period of 10 days, and forwarded to the EB within 1 working day.
The proposed revision of the monitoring plan shall be considered by the secretariat in consultation with the Chair of the MP and the Chair of the EB.
If accepted, the revised monitoring plan shall be displayed on the project page on the CDM website.
13. Verification, certification and issuance of CERs

13-1. Procedures for verification, certification and issuance of CERs

CDM project participants (PPs)

- Contract with a DOE for verification and certification from a list of DOEs and submit a monitoring report.
  [CMP/2005/8/Ad1, p18 para60]
  ⇒ Timing and frequency of submission is not specified in the official documents.

Designated operational entity (DOE)

- Make the monitoring report directly publicly available in PDF format on the UNFCCC CDM web site using a dedicated interface, specifying the start and ending date of the monitoring period.
  ⇒ Unless the EB has agreed grant an exception, a DOE shall not perform verification functions on a CDM project activity for which it has performed the function of validation/registration.
  ⇒ The first monitoring report made publicly available shall be the one prepared by the PPs prior to the verification activity. Any revised monitoring report, prepared as a result of corrective action raised by the DOE, shall be submitted as an additional document together with the request for issuance. [EB25 Rep, para107]

- Implement verification and provide a verification report. [CMP/2005/8/Ad, p18 para62(a)-(h)]

- Based on its verification report, certify in writing the verified amount of GHG emission reductions. [CMP/2005/8/Ad1, p19 para63]

- Submit the form “CDM form to submit verification and certification reports and to request issuance (F-CDM-REQCERS)” including, inter alia, the verification and certification reports, using the electronic submission tool available to DOEs on the UNFCCC CDM website.

UNFCCC secretariat

- Immediately upon completion of the entry by the DOE, the information shall be made available on the UNFCCC CDM web site and the public shall be informed of the availability of the monitoring report through the CDM news facility. The secretariat shall promptly inform the DOE and PPs when the announcement has been made.

- Expediteously determine whether the submission by the DOE is complete.
  ⇒ The date of receipt of a request for issuance is the date when the secretariat has determined that the request is complete.

- The form, the verification and certification reports shall be made available on the UNFCCC CDM web site. The web site shall be distributed to:
  ⇒ EB by e-mail through its listserv
  ⇒ PPs, in accordance with the modalities of communication
  ⇒ Parties involved through DNA
  ⇒ DOE by e-mail to the contact person(s)
  ⇒ Public through the UNFCCC CDM news facility.

- The secretariat shall identify for each request for issuance the RIT member. The member will be informed and has a maximum of 1 day to indicate whether he/she has or not a conflict of interest. If a conflict of interest situation exists another person shall be assigned. The appraisal shall indicate whether verification and certification requirements have been met and/or appropriately dealt with by the DOE. The RIT member shall prepare an appraisal using the form “Appraisal of issuance requests (F-CDM-ISSappr)” and submit it to the secretariat within 6 calendar days. The secretariat shall prepare a summary note of the request for issuance and forward this, together with the member’s appraisal, to the EB within 3 calendar days of receiving the member’s appraisal. [EB29 Anx14, para27-32].
(10) Whether a Party involved in the project activity or at least 3 members of the EB request a review of the proposed issuance of CERs within 15 days after the date of receipt of the request for issuance. (Such a review shall be limited to issues of fraud, malfeasance or incompetence of the DOE) [CMP/2005/8/Ad1, p19 para65]

Yes

No

Decide on its course of action at its next meeting.

Complete its review within 30 days.

Inform the PPs of the outcome of the review, and make public its decision regarding the approval of the proposed issuance of CERs and the reasons for it.

(11) Instruct the CDM Registry administrator to issue the specified amount of CERs for the specified time period.

Approval

Rejection

In cases where the reasons for rejection can be addressed by means of a revised verification report, based on a revised monitoring report, if appropriate, the DOE may request to be permitted to submit a revised request for issuance for the same monitoring period covered by the rejection. The EB will consider such a request at the subsequent EB meeting and decide on a case-by-case basis. In these cases the EB will provide further guidance. In cases where such a revised request for issuance is also rejected it shall not be possible to resubmit for a 3rd time. [EB28 Rep, para96]

The instruction by the EB to the CDM Registry administrator (chap.19-1) shall be communicated to the PPs in accordance with the modalities of communication (chap.4-7). The instruction shall be made publicly available on the UNFCCC CDM website.

Procedures on how the CDM Registry administrator proceeds after having received the instruction by the EB will be included in a separate set of procedures, which are being elaborated in the context of the CDM Registry.
13. Verification, certification and issuance of CERs

13.2. Procedures for review of issuance

(1) Request for review

By a Party involved in a proposed CDM project activity
A request for review shall be sent by the relevant DNA to the EB, through the secretariat, using official means of communication (such as recognized official letterhead and signature or an official dedicated e-mail account).

By a member of the EB
A request for review shall be sent to the EB.

The secretariat acknowledges the receipt of a request for review and promptly forward the request to the EB via the list-serve.
☞ A review shall be limited to issues of fraud, malfeasance or incompetence of the DOEs. A request for review shall be specific in this regard.
☞ A request for review shall be considered received by the EB on the date it has been received by the secretariat, and not be considered if it is received after 17:00 GMT of the last day of the 15-day period after the receipt of the request for issuance of CERs.

As soon as a Party involved or 3 EB members request a review of a proposed issuance of CERs, the following actions are taken:
(a) The consideration of a review of the proposed issuance of CERs shall be included in the proposed agenda of the next EB meeting;
(b) The EB notifies the PPs and the DOE that a review has been requested, informed about the date and venue of the EB meeting at which the request for review will be considered. Stakeholders interested in the review process also be given an opportunity to attend the EB meeting;
⇒ PPs and the DOE, when being notified of the request for review, shall be invited to submit comments to the EB on issues raised within 2 weeks but not later than 2 weeks before the meeting. These inputs shall be made publicly available.
⇒ An RIT member shall prepare an appraisal of these inputs with regard to issues identified in the requests for review.
⇒ The secretariat, under the guidance of the Chair of the EB, shall prepare a decision sheet for consideration of the EB.
(c) The PPs and the DOE shall each provide a contact person for the review process;
(d) The proposed issuance of CERs shall be marked as being “under review” on the UNFCCC CDM web site and a notification shall be sent through the UNFCCC CDM News facility.

By a member of the EB
A request for review shall be sent to the EB.

(2) Scope and modalities of review
☞ The EB considers and decides, at its next meeting, either to perform a review of the proposed issuance of CERs or to approve the issuance.
☞ If the EB agrees to perform a review, it decides on the scope of the review relating to issues of fraud, malfeasance or incompetence of the DOE and the composition of a review team, at the same meeting. The review team consists of 2 EB members and outside experts, as appropriate.
☞ The review team requests further information to the DOE and PPs and analyze information received.

(3) Review process
☞ The decision by the EB is made publicly available as part of the report of its meeting.
☞ Requests for clarification and further information may be sent to the DOE and the PPs. Answers shall be submitted to the review team, through the secretariat, within 5 working days after the receipt of the request for clarification.
☞ The 2 EB members shall be responsible for compiling inputs and comments and preparing the recommendation to be forwarded to the EB via listserve.

(4) Review decision
☞ The EB shall complete its review within 30 days following its decision to perform the review.
☞ The EB decides on whether: to approve the proposed issuance of CERs; to request the DOE to make corrections based on the findings from the review before approving the issuance of CERs; or to not approve the proposed issuance of CERs.
☞ The EB shall inform the PPs of the outcome of the review, and make public its decision regarding the approval of the proposed issuance of CERs and the reasons for it.
☞ If the review indicates any issues relating to performance of the DOE, the EB shall consider whether or not to trigger a spot-check of the DOE.

BOX: Coverage of costs of the request for review
The EB bears the costs for reviewing. If the EB decides not to approve a proposed issuance of CERs and if a DOE is found to be in the situation of malfeasance or incompetence, the DOE shall reimburse the EB for the expenses. This provision is subject to review as experience accrues. [EB29 Anx16, para21]
14. Deviation

A DOE shall, prior to requesting registration of a project activity or issuance of CERs, notify the EB of deviations from AMs and/or provisions of registered project documentation and explain how it intends to address such deviations. [EB24 Anx30, para1]

A request for deviation is suitable for situations where a change in the procedures for the estimation of emissions or monitoring procedures is required due to a change in the conditions, circumstances or nature of a registered project activity. The deviation shall be project specific.

A request for deviation is not suited for cases where (i) the monitoring plan is not in accordance with the monitoring methodology applied to the registered project activity, (ii) when the approved methodology is no longer applicable to the project activity, (iii) it results in the types of changes referred to in (chap.7-6), (iv) or for example it results in a change in default parameter values other than those mentioned in the approved methodology. [EB30 Anx1, para12-13]

(1) Submission of a request for deviation [EB24 Anx30, para4-9]

(a) Registration: Request for deviation from an AM
If a DOE finds at validation that PPs deviated from an AM, it may seek guidance on the acceptability of the deviation from the EB prior to requesting registration.

If a DOE finds that the deviation from the AM requires revision of this methodology the procedures provided for revision of AM shall be used.

If guidance is sought, the DOE shall submit the form for submission of a request for deviation “F-CDM-DEV” through the dedicated internet interface.

Upon submission of the form, the secretariat shall forward the documentation to the EB (in case of (a), and to the MP).

☞ If the Secretariat, in consultation with the Chair of the MP (in case of (b), the Chair of the EB), assesses that the request for deviation does not meet the criteria for a request for deviation, it shall ask the DOE to submit the request as a request for revision of an AM (in case of (b), to resubmit the request for deviation). The date of transmission by the secretariat to the EB is the date of receipt of a request for deviation. Information on a request for deviation shall be made publicly available unless specified differently by the DOE.

(b) Issuance: Request for deviation from provisions for a registered project activity
If a DOE determines at verification that PPs deviated from the monitoring plan of a registered CDM project activity, it may conclude not to certify, and inform the EB accordingly, or to seek guidance from the EB on the acceptability of the deviation prior to concluding on its verification/certification decision.

If guidance is sought, the DOE shall submit the form for submission of a request for deviation “F-CDM-DEV” through the dedicated internet interface.

Upon submission of the form, the secretariat shall forward the documentation to the EB (in case of (a), and to the MP).

☞ If the Secretariat, in consultation with the Chair of the MP (in case of (b), the Chair of the EB), assesses that the request for deviation does not meet the criteria for a request for deviation, it shall ask the DOE to submit the request as a request for revision of an AM (in case of (b), to resubmit the request for deviation). The date of transmission by the secretariat to the EB is the date of receipt of a request for deviation. Information on a request for deviation shall be made publicly available unless specified differently by the DOE.

(2) Consideration of a request for deviation [EB24 Anx30, para10-12]

The Chair of the EB, in consultation with the relevant chair of panel(s) and/or WG(s) decides within 5 working days.
☞ The submission shall be considered by the relevant panels/WGs to provide technical input.
☞ If more information is required, the DOE shall provide such information. Upon receipt the information is forwarded to the members of the EB, panels, WGs, as applicable.

In the case that no technical clarification is needed by any panel and/or WG, or once technical clarifications have been provided by a panel and/or WG, the EB decides, whenever possible, by electronic decision making based on a decision prepared by the Chair of the EB, ☞ if the request for deviation shall be accepted or not; ☞ if further guidance is to be provided to the DOE; and ☞ if the general clarifications shall be shared with all DOEs and PPs, as appropriate.

Once a decision has been made by the EB, the secretariat shall inform the DOE about the decision. If general clarifications shall be shared with all DOEs and PPs, the secretariat makes the guidance publicly available.

(3) Consideration of a request for deviation by panel/WG [EB24 Anx30, para13-14]

If a panel and/or WG is to consider a request for deviation, the Chair of the panel/WG decides,
☞ if it shall be treated at the next meeting of the panel/WG; ☞ or whether the request can be treated electronically by the panel/WG.

The panel/working group considers the proposed deviation at its next meeting, if feasible, and recommend to the EB whether the proposed request should be accepted and/or provide clarifications requested. Up to 2 member(s) shall be selected for preparing draft recommendations for the panel/WG.
15. Distribution of CERs

Upon being instructed by the EB to issue CERs for a CDM project activity, the CDM registry administrator shall, promptly, issue the specified quantity of CERs into the pending account of the EB in the CDM registry. [CMP/2005/8/Ad1, p19 para66]

The issuance of CERs, in accordance with the distribution agreement, shall be effected only when the share of proceeds to cover administrative expenses (SOP-Admin) of the CDM has been received. [CMP/2005/8/Ad1, p98 para37]

The SOP-Admin shall be:
⇒ USD 0.10 per CER issued for the 1st 15,000 t-CO₂ equivalent for which issuance is requested in a given calendar year;
⇒ USD 0.20 per CER issued for any amount in excess of 15,000 t-CO₂ equivalent for which issuance is requested in a given calendar year. [EB23 Anx35, para1]

The registration fee shall be deducted from the SOP-Admin. (chap.11-3)

Among issued CERs, 2% of those will be deducted for share of proceeds to assist developing Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation (SOP-Adaptation). [CP/2001/13/Ad2, p23 para15(a)]

CDM project activities in least developed country Parties shall be exempt from the SOP to assist with the costs of adaptation. [CP/2001/13/Ad2, p23 para15(b)]

CERs are forwarded to the registry accounts of PPs, in accordance with their request. [CMP/2005/8/Ad1, p20 para66(b)]

The decision on the distribution of CERs shall exclusively be taken by PPs. [Glos ver1, p22]

PPs shall communicate with the EB, through the secretariat, in writing in accordance with the “modalities of communication” as indicated at the time of registration or as subsequently altered. [EB23 Anx35, para9]

If a PP does not wish to be involved in taking decisions on the distribution of CERs, this shall be communicated to the EB through the secretariat at the latest when the request regarding the distribution is made.

The request regarding the distribution of CERs can only be changed if all signatories have agreed to the change and signed the appropriate document.

Requests for the partial distribution of CERs issued in a single transaction shall be allowed. [EB21 Rep, para70]

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CERs are forwarded to the registry accounts of PPs, in accordance with their request. [CMP/2005/8/Ad1, p20 para66(b)]

The decision on the distribution of CERs shall exclusively be taken by PPs. [Glos ver1, p22]

PPs shall communicate with the EB, through the secretariat, in writing in accordance with the “modalities of communication” as indicated at the time of registration or as subsequently altered.

If a PP does not wish to be involved in taking decisions on the distribution of CERs, this shall be communicated to the EB through the secretariat at the latest when the request regarding the distribution is made.

The request regarding the distribution of CERs can only be changed if all signatories have agreed to the change and signed the appropriate document.

Requests for the partial distribution of CERs issued in a single transaction shall be allowed. [EB21 Rep, para70]
16. Renewal of crediting period

The renewal of a crediting period of a registered CDM project activity shall only be granted if a DOE determines and informs the EB that the original project baseline is still valid or has been updated taking account of new data where applicable.

(1) Preparation of a revised PDD

PPs shall update those sections of the PDD relating to the baseline, estimated emission reductions and the monitoring plan using an AM as follows:
☞ a) The latest AM, applied in the original PDD of the registered CDM project activity, shall be used whenever applicable;
☞ b) If a baseline and monitoring methodology, applied in the original PDD, was withdrawn after the registration of the CDM project activity and replaced by a consolidated methodology, the latest approved version of the respective consolidated methodology shall be used;
☞ c) If the registered CDM project activity does not meet applicability criteria of the options provided for by a) or b), due to their revision or due to the update of the baseline, the PPs shall either select another applicable AM or request, through the DOE, a deviation from an AM for the purpose of renewal of the crediting period.

(2) Application for renewal of a crediting period

PPs shall notify the secretariat of their intention to request a renewal of a crediting period of the registered CDM project activity by submitting an updated PDD and informing of their selection of a DOE, within 9 to 6 months prior the date of expiration of the current crediting period.
☞ For the purpose of renewal of the crediting period it is not necessary to obtain a new letter of approval from Parties involved.
☞ No fee is due for the application for the renewal of the crediting period.

The DOE’s validation opinion shall address the following issues:
☞ a) the validity of the original baseline scenario or its update;
☞ b) an impact of new relevant national and/or sectoral policies and circumstances on the baseline scenario; and
☞ c) the correctness of the application of an AM for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the respective crediting period.

A DOE shall submit a request for renewal of a crediting period of a registered CDM project activity using the “CDM project activity crediting period renewal form” (F-CDM-REN) along with the updated PDD.

(3) Processing of an application

Upon receipt of a request for renewal of a crediting period of the registered CDM project activity the secretariat will determine whether all information and documentation requested in the F-CDM-REN form has been provided by the DOE.

Once the secretariat has determined that the request is complete it shall be made publicly available through the UNFCCC CDM web site for a period of 4 weeks. The secretariat shall announce a request for renewal of a crediting period of the registered CDM project activity on the UNFCCC CDM web site and notify the requesting DOE, the PPs and the DNA.

Unless there is a request for review within 4 weeks after the publication of the request for renewal, the crediting period of the registered CDM project activity shall be deemed renewed.

☞ The procedures to be applied for review of a request for renewal of a crediting period are the same as the procedures for review of registration. (chap. 11-2)
☞ The start date of the renewed crediting period is the first day after the ending date of the previous crediting period.

The secretariat will make the best effort to inform PPs in advance of the period for requesting renewal of the crediting period in accordance with the registered modalities of communication. It remains under the responsibility of PPs to ensure that all actions are taken in accordance with these procedures in a timely manner.
17. Small-scale CDM (SSC)

17-1. Definition of small-scale CDM (SSC)

Simplified modalities and procedures are applicable for the following small-scale CDM project activities. [CMP/2005/8/Ad1, p43-45]
☞ Project activities using a renewable crediting period shall reassess their compliance with the limits at the time when they request renewal of the crediting period. [Glos ver1, p27]

Type I project activities shall remain the same, such that renewable energy project activities shall have a maximum output capacity of 15 MW (or an appropriate equivalent) [CMP/2006/10/Ad1, p8 para28(a)]
☞ Maximum “output” is defined as installed/rated capacity, as indicated by the manufacturer of the equipment or plant, disregarding the actual load factor of the plant;
☞ As MW(e) is the most common denomination, and MW(th) only refers to the production of heat which can also be derived from MW(e), the EB agreed to define MW as MW(e) and otherwise to apply an appropriate conversion factor.
[Glos ver1, p27]

Type II project activities or those relating to improvements in energy efficiency, which reduce energy consumption, on the supply and/or demand side, shall be limited to those with a maximum output of 60 GWh per year (or an appropriate equivalent); [CMP/2006/10/Ad1, p8 para28(b)]
☞ Demand side, as well as supply side, projects shall be taken into consideration, provided that a project activity results in a reduction of maximum 60 GWh. A total saving of 60 GWh is equivalent to 4000 hours of operation of a 15 MW plant or 60*3.6 TJ = 216 TJ, where TJ stands for terajoules.
[Glos ver1, p27]

Type III project activities, otherwise known as other project activities, shall be limited to those that result in emission reductions of less than or equal to 60 kt CO2 equivalent annually; [CMP/2006/10/Ad1, p8 para28(c)]

Box: Equipment performance [Glos ver1, p16]
☞ To determine equipment performance, PPs shall use:
⇒ (a) The appropriate value specified in CMP/2006/10/Ad1 p9 para28;
⇒ (b) If the value specified in (a) is not available, the national standard for the performance of the equipment type;
⇒ (c) If the value specified in (b) is not available, an international standard for the performance of the equipment type, such as ISO and IEC standards;
⇒ (d) If a value specified in (c) is not available, the manufacturer’s specifications provided that they are tested and certified by national or international certifiers.
☞ PPs have the option of using performance data from test results conducted by an independent entity for equipment installed under the project activity.
17. Small-scale CDM (SSC)

17-1. Definition of SSC

Project activity with more than one component
♦ A single project activity composed of 2 or 3 distinct project activities being implemented by the same PP, each applying an approved category/methodology separate from the other. [Glos ver1, p21]
♦ Each component of a project activity should receive or provide an input from/to other components of the project activity. [Glos ver1, p21]
♦ The EB agreed that the sum of the size of components of a project activity belonging to the same type should not exceed the limits for SSC project activities. [EB28 Rep, para56]
♦ The EB agreed that a project activity with more than one component may submit one PDD, provided the information regarding the sections covering the type and categories and technology / measure of the SSC project activity and application of the baseline and monitoring methodology in the CDM-PDD are provided separately for each component. [EB28 Rep, para57]
☞ Two different project activities will be considered to be applying the same technology if they provide the same kind of output and use the same kind of equipment and conversion process.
☞ Two different project activities will be considered to be using the same measure if they constitute the same course of action and result in the same kind of effect (e.g. two projects using the same management practice such as fuel switch). [Glos ver1, p24]

BOX: Switch from non-renewable to renewable biomass
COP/MOP requested the EB to make a recommendation to the COP/MOP3, on a simplified methodology for calculating emission reductions for small-scale project activities that propose the switch from non-renewable to renewable biomass; approval of such methodologies by the EB for use for CDM project activities can occur only after concurrence of the COP/MOP3. [CMP/2006/10/Ad1, p8 para30]

BOX: In case a SSC project activity goes beyond the limit
If a project activity goes beyond the limit of its type in any year of the crediting period, the emission reductions that can be claimed by the project during this particular year will be capped at the maximum emission reduction level estimated in the CDM-SSC-PDD by the PPs for that year during the crediting period. [Glos ver1, p27]
17-2. Simplified modalities and procedures

♦ SSC project activities shall follow the stages of the project cycle specified in the CDM M&P. In order to reduce transaction costs, however, modalities and procedures are simplified for SSC project activities, as follows: [CMP/2005/8/Ad1, p45 para9]

☞ Project activities may be bundled or portfolio bundled at the following stages in the project cycle: the PDD, validation, registration, monitoring, verification and certification;

☞ The requirements for the PDD are reduced (Att.2-1);

☞ Baselines methodologies by project category are simplified to reduce the cost of developing a project baseline;

☞ Monitoring plans are simplified to reduce monitoring costs;

☞ The same OE may undertake validation, and verification and certification.

♦ GHG reductions shall be adjusted for leakage in accordance with the provisions of Appendix B (simplified baseline and monitoring methodologies) for the relevant project categories. The EB shall consider simplification of the leakage calculation for any other project categories added to Appendix B.

☞ In the cases where leakage is to be considered, it shall be considered only within the boundaries of non-Annex I Parties. [Glos ver1, p18]

♦ The other differences from large-scale CDM project activities are as follows:

☞ For the appraisal by EB-RIT, the member shall prepare an appraisal and submit it within 15 calendar days (20 for large-scale) to the secretariat. The secretariat shall prepare a summary note of the request for registration and forward this, together with the appraisal, to the EB within 5 calendar days (10 for large-scale) of receiving the member’s appraisal. [EB29 Anx14, para24-25]

☞ The registration by the EB shall be deemed final 4 (8 for large) weeks after the date of receipt of the request for registration, unless there is a request for review of the proposed CDM project activity. [CMP/2005/8/Ad1, p48 para24]

BOX: Simplified baseline and monitoring methodologies

☞ PPs may propose changes to the simplified baseline and monitoring methodologies or propose additional small-scale project categories for consideration by the EB.

☞ A form (F-CDM-SSC-Subm) shall be used for submitting queries or proposals to be considered by the EB through the SSC-WG.

☞ The following instructions apply:

⇒ Use one form for each submission;

⇒ Request for the creation of new categories should be accompanied by a completed draft PDD (section A to E) along with more substantive evidence from the PPs as to the need for a small-scale methodology;

⇒ The submissions will be considered by the SSC-WG in its next meeting, if presented at least 4 weeks in advance. [SSC GL ver4, p18]
**Additionality for SSC project activities**

The attachment A to Appendix B (CMP/2005/8/Add1 p52) corresponds to list of barriers PPs shall use in order to demonstrate that a small-scale project activity would not have occurred otherwise (i.e. is additional).

PPs shall provide an explanation to show that the project activity would not have occurred anyway due to at least one of the following barriers:

<table>
<thead>
<tr>
<th><strong>Investment barrier:</strong></th>
<th>** Barrier due to prevailing practice:**</th>
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<tr>
<td>a financially more viable alternative to the project activity would have led to higher emissions;</td>
<td>prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;</td>
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<tr>
<th><strong>Technological barrier:</strong></th>
<th><strong>Other barriers:</strong></th>
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<tr>
<td>a less technologically advanced alternative to the project activity involves lower risks due to the performance uncertainty or low market share of the new technology adopted for the project activity and so would have led to higher emissions;</td>
<td>without the project activity, for another specific reason identified by the PP, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.</td>
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Quantitative evidence that the project activity would otherwise not be implemented may be provided instead of a demonstration based on the barriers listed above.
17. Small-scale CDM (SSC)

Bundling [Glos ver1, p11]
♦ Bundle is defined as, bringing together of several SSC project activities, to form a single CDM project activity or portfolio without the loss of distinctive characteristics of each project activity.
♦ Project activities within a bundle can be arranged in one or more sub-bundles, with each project activity retaining its distinctive characteristics.
☞ Such characteristics include its:
   - technology/measure; location; and application of simplified baseline methodology.
♦ Project activities within a sub-bundle belong to the same type. The sum of the output capacity of projects within a sub-bundle must not be more than the maximum output capacity limit for its type.

Debundling [Glos ver1, p15]
♦ Debundling is defined as the fragmentation of a large scale project activity into smaller parts.
♦ A small-scale project activity that is part of a large scale project activity is not eligible to use the simplified modalities and procedures for SSC project activities.
♦ A proposed small-scale project activity shall be deemed to be a debundled component of a large scale project activity if there is a registered SSC project activity or a request for registration by another small-scale project activity:
   - By the same project participants;
   - In the same project category and technology/measure;
   - Registered within the previous 2 years;
   - Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point.
♦ If a proposed small-scale project activity is deemed to be a debundled component, but the total size of such an activity combined with the previous registered SSC project activity does not exceed the limits for SSC project activities, the project activity can qualify to use simplified modalities and procedures for SSC project activities.

General Characteristics [SSC GL ver4, p19 para1-8]
☞ Project activities wishing to be bundled shall indicate this when making the request for registration.
☞ The composition of bundles shall not change over time. A project activity shall not be taken out of a bundle nor shall a project activity be added to the bundle after registration.
☞ All project activities in the bundle shall have the same crediting period.
☞ PPs shall at registration provide a written statement along with the submission of the bundle indicating:
   ⇒ The agreement of all PPs to bundle their individual project activities;
   ⇒ One PP who represents all PPs in order to communicate with the EB.
☞ Bundled project activities shall be submitted in a single submission to the EB and pay only one fee proportional to the amount of expected average annual emission reductions of the total bundle.
☞ If 3 EB members or a Party involved in a project activity requests the review of the project activity, the total bundle remains under review.
☞ A form with information related to the bundle “F-CDM-BUNDLE” must be included in the submission. (Att.2-2)

Letter of approval [SSC GL ver4, p20 para12-14]
The letter of approval by the host Party(ies) has to indicate that the Party is aware that the project activity(ies) taking place in its territory is part of the bundle.

Overall monitoring plan [Glos ver1, p21]
☞ If project activities are bundled, a separate monitoring plan shall apply for each of the constituent project activities, or an overall monitoring plan shall apply for the bundled projects, as determined by the DOE at validation.
☞ Only projects within the same category and technology/measure can use an overall monitoring plan.

Validation and verification [SSC GL ver4, p20 para15]
☞ One DOE can validate this bundle.
☞ One verification report is adequate, one issuance will be made at the same time for the same period, and a single serial number will be issued for all the project.
18. CDM Programme of activities

Definition of a programme of activities (PoA) [EB32 Anx38]
A programme of activities (PoA) is a voluntary coordinated action by a private or public entity which coordinates and implements any policy/measure or stated goal (i.e. incentive schemes and voluntary programmes), which leads to GHG emission reductions or increase removals by sinks additionally, via an unlimited number of CDM program activities (CPAs, which is project activities under a programme of activities).
☞ The latest version of 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” [EB32 Anx39] shall be applied.

Boundary
☞ The physical boundary of a PoA may extend to more than one country provided that each participating non-annex I host Party provides confirmation that the PoA, and thereby all CPAs, assists it in achieving sustainable development.

Coordinating or managing entity
☞ A PoA shall be proposed by the coordinating or managing entity which shall be a PP authorized by all participating host country DNAs involved and identified in the modalities of communication (chap.4-7) as the entity which communicates with the EB, including on matters relating to the distribution of CERs.

Baseline and additionality
☞ All CPAs of a PoA shall apply the same AM.
☞ The PoA shall demonstrate GHG emission reductions or removals by sinks additionally for each CPA under the PoA.
☞ If the AM is put on hold or withdrawn, not for the purpose of a consolidation, no new CPAs shall be added to the PoA. If the AM is subsequently revised or replaced by inclusion in a consolidated methodology, the PoA shall be revised accordingly and changes validated by a DOE and approved by the EB. Once changes have been approved by the EB, each CPA included in the PoA thereafter has to use the new version of the PoA. CPAs included prior to the AM being put on hold, shall apply the new version of the PoA at the time of the renewal of its crediting period.

Monitoring
☞ The emission reductions or increase removals by sinks of each CPA shall be monitored as per the registered monitoring plan applied to the registered PoA. The method or approach used to verify (that may include random sampling) shall ensure the accuracy of these emission reductions or increase removals by sinks.

Treatment of local/regional/national policies and regulations
☞ A PoA shall comply with all current guidance by the EB concerning the treatment of local/regional/national policies and regulations. PoA addressing mandatory local/regional/national policies and regulations are permissible provided it is demonstrated that these policies and regulations are systematically not enforced. If they are enforced, the effect of the PoA is to increase the enforcement beyond the mandatory level required.

Double counting
☞ The coordinating entity of the PoA shall identify measures to ensure that all CPAs under its PoA are neither registered as an individual CDM project activity nor included in another registered PoA. These measures are to be validated and verified by DOE.

Duration and crediting period
☞ Each CPA shall be uniquely identified, defined and localized in an unambiguous manner including the exact start and end date of the crediting period, by providing, at the stage it is added to the registered PoA, the information required by the registered PoA.
☞ The duration of the PoA, not exceeding 28 years and 60 years for A/R project activities, shall be defined by the entity at the time of request for registration of the PoA.
☞ Any CPA can be added to the PoA at any time during the duration of the PoA by the coordinating/managing entity. The entity shall inform the EB of the adding of CPA(s) through a DOE using a pre-defined format.
☞ The crediting period of a CPA will be either a maximum of 7 years (20 years for A/R project activities) which may be renewed at most 2 times or a maximum of 10 years (30 years for A/R project activities) with no option of renewal. However, the duration of crediting period of any CPA shall be limited to the end date of the PoA regardless of when the CPA was added.

Registration fee for a PoA [EB33 Rep. para60]
☞ The registration fee for a PoA is based on the total expected annual emission reductions of the CPA(s) that will be submitted together with the request for registration of the PoA. The calculation of the amount to be paid and the procedures for payment will follow mutatis mutandis the existing rules. (chap.11-3)
☞ For each CPA which is included subsequently, no fee is to be paid. Fees are to be paid by the coordinating/managing entity to the secretariat.
19. Afforestation and Reforestation CDM (A/R CDM)

19-1. Overview of A/R CDM

Rules and procedures regarding A/R CDM project activities are similar to those of GHG emission reduction CDM project activity including project cycle, PDD contents, and validation and verification procedure. The most significant difference between the emission reduction CDM and A/R CDM is non-permanence. Once GHG emission reductions are achieved, they are permanent reduction whereas in A/R CDM, CO₂ once sequestered in trees could be released back into the atmosphere in an occasion such as forest fire or die back from pests. The issue of non-permanence is addressed by creating different type of CERs, namely temporary CERs (tCERs) and long-term CERs (lCERs).

Eligibility of A/R CDM project activities
♦ The EB agreed that eligibility of the A/R CDM project activities shall be demonstrated based on following definitions, until new procedures to demonstrate the eligibility of lands for A/R CDM project activities are approved by the EB. [EB28 Rep, para36]
☞ “Forest” is a minimum area of land of 0.05–1.0 hectare, with tree crown cover (or equivalent stocking level) of more than 10–30 %, with trees with the potential to reach a minimum height of 2–5 metres at maturity in situ.
⇒ A forest may consist either of closed forest formations where trees of various storeys and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10–30 % or tree height of 2–5 metres are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes but which are expected to revert to forest.
☞ “Afforestation” is the direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human-induced promotion of natural seed sources.
☞ “Reforestation” is the conversion of non-forested land to forested land, on land that was forested but that has been converted to non-forested land. For the 1st commitment period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989. [CMP/2005/8/Ad3, p5 para1(a)-(c)]
♦ A/R CDM is limited to afforestation and reforestation. [CMP/2005/8/Ad3, p7 para13]

Crediting period of the A/R CDM project activity [CMP/2005/8/Ad1, p67 para23]
It begins at the start of the A/R CDM project activity and can be either:
☞ A maximum of 20 years, may be renewed twice (total 60 years maximum)
☞ A maximum of 30 years
☞ A/R CDM project activity starting after 1 January 2000 can be validated and registered after 31 December 2005 as long as the 1st verification of the project activity occurs after the date of registration of this project activity.
☞ Given that the crediting period starts at the same date as the starting date of the project activity, the projects starting 2000 onwards can accrue tCERs/lCERs as of the starting date. [EB21 Rep, para64]
☞ The initial verification and certification of an A/R CDM project activity may be undertaken at a time selected by the PPs. Thereafter, verification and certification shall be carried out every 5 years until the end of the crediting period. [CMP/2005/8/Ad1, p69 para32]
19-2. Non-permanence of A/R CDM (tCER and lCER)

Temporary CERs (tCERs) and Long-term CERs (lCERs):
☞ The PPs shall select one of the following approaches to addressing non-permanence of an A/R CDM project activity [CMP/2005/8/Ad1, p70 para38]:
(a) Issuance of tCERs for the net GHG removals by sinks achieved by the project activity since the project starting date; or
(b) Issuance of lCERs for the net GHG removals by sinks achieved by the project activity during each verification period.
☞ The approach chosen to address non-permanence shall remain fixed for the crediting period including any renewals.

Example: Changes in net GHG removals by a A/R project activity
The chart below shows changes in GHG removals by an A/R project activity. In the next two pages, an explanation of issuance and expiration of tCERs and lCERs will be given based on the assumptions shown in the chart below.
☞ Trees are planted in 2007.
☞ 1st issuance of tCERs or lCERs takes place in 2011. Trees are left to grow during the 1st and 2nd commitment periods and 2nd issuance of tCERs or lCERs takes place in 2016.
☞ Assuming each commitment period (CP) would be 5 years.
☞ Trees are cut in 2017 before the end of the 2nd commitment period (CP) and 3rd issuance takes place in 2021. The last issuance takes place in in 2036.
☞ Each tCER or lCER issued will be used for achieving a Party’s emission reduction target.
☞ Crediting period is 30 years without renewal.

<table>
<thead>
<tr>
<th>Year</th>
<th>Issuance/Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Trees planted</td>
</tr>
<tr>
<td>2008</td>
<td>100 t</td>
</tr>
<tr>
<td>2013</td>
<td>150 t</td>
</tr>
<tr>
<td>2017</td>
<td>Trees harvested</td>
</tr>
<tr>
<td>2018</td>
<td>100 t</td>
</tr>
<tr>
<td>2021</td>
<td>50 t</td>
</tr>
<tr>
<td>2023</td>
<td>100 t</td>
</tr>
<tr>
<td>2036</td>
<td>100 t</td>
</tr>
<tr>
<td>2038</td>
<td></td>
</tr>
</tbody>
</table>

Expiry of tCERs and lCERs
☞ Each tCER shall expire at the end of the commitment period subsequent to the commitment period for which it was issued. [CMP/2005/8/Ad1, p71 para42]
☞ Each lCER shall expire at the end of the crediting period or, where a renewable crediting period is chosen, at the end of the last crediting period of the project activity. [CMP/2005/8/Ad1, p71 para46]
Example: From issuance to replacement of tCERs

**Actions taken by PPs**

- **2007**: Trees are planted followed by registration as A/R CDM project activity
- **2011**: 100 tCERs are issued
- **2016**: 150 tCERs are issued
- **2017**: Trees are harvested

**Actions taken by Annex I Parties**

- The Party holds the 100 tCERs transfers those tCERs to its retirement account at the end of the 1st CP. (Hereafter assume the Party does same thing for subsequent CPs)
  - tCERs may not be carried over to a subsequent CP.

- The planted trees have GHG removal of 150 t, and 150 tCERs would be issued. (Even when trees are cut right after tCERs are issued, the tCERs are still valid during the CP which they are issued.)

- Each tCER shall expire at the end of the CP subsequent to the CP for which it was issued [CMP/2005/8/Ad1, p71 para42]. And a tCER shall be replaced before its expiry date [CMP/2005/8/Ad1, p71 para44]. Therefore, **100 tCERs shall be replaced** by the party before the end of 2nd CP.
  - To replace tCERs, the concerned Party shall transfer the same quantity of AAUs, CERs, ERUs, RMUs or tCERs to the tCER replacement account of the current CP [CMP/2005/8/Ad1, p71 para43-44] 
  - This condition may vary depending on each Party’s domestic policy, and the PP may be held responsible for replacement.

- **2021**: 50 tCERs are issued
- **2036**: 100 tCERs are issued

The same process continues until the end of the crediting period

- **1st CP**: 100 tCERs are issued
- **2nd CP**: 150 tCERs are issued
- **3rd CP**: 50 tCERs are issued
- **6th CP**: 100 tCERs are issued
- **7th CP**: The end of crediting period

- 150 tCERs shall be replaced before the end of 3rd CP.
- 50 tCERs shall be replaced before the end of 4th CP.
- 100 tCERs shall be replaced before the end of 7th CP.

19-2. Non-permanence of A/R CDM (tCER and ICER)
**Example: From issuance to replacement of ICERs**

<table>
<thead>
<tr>
<th>Year</th>
<th>Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>Trees are planted followed by registration as A/R CDM project activity</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>100 ICERs are issued</td>
<td>The Party holds 100 ICERs transfers those ICERs to its retirement account at the end of the 1st CP. (Hereafter assume the Party does same thing for subsequent CPs) ⇒ ICERs may not be carried over to a subsequent CP.</td>
</tr>
<tr>
<td>2016</td>
<td>50 ICERs are issued</td>
<td>The planted trees have GHG removal of 150t, 50 ICERs would be issued. (The difference between the previous and the current GHG removals).</td>
</tr>
<tr>
<td>2017</td>
<td>Trees are harvested</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>Reversal of 100 t-CO₂ removal is found</td>
<td>Where the certification report of the DOE indicates a reversal of GHG removals since the previous certification, an equivalent quantity of ICERs shall be replaced [CMP/2005/8/Ad1, p72 para49]. Therefore, <strong>100 ICERs shall be replaced</strong> by the party. ⇒ To replace reversed ICERs, the concerned Party shall transfer the same quantity of AAUs, CERs, ERUs, RMUs or ICER from the same project activity to the ICER replacement account of the current CP within 30 days. [CMP/2005/8/Ad1, p72 para49(d)] ⇒ This condition may vary depending on each Party’s domestic policy, and the PP may be held responsible for replacement. ⇒ As far as reversal of removal is not found, ICER does not have to be replaced until the end of crediting period.</td>
</tr>
<tr>
<td>2036</td>
<td>50 ICERs are issued</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>The end of crediting period</td>
<td>The same process continues until the end of the crediting period.</td>
</tr>
</tbody>
</table>

- **19. A/R CDM**

**19-2. Non-permanence of A/R CDM (tCER and ICER)**
19.3. Calculation of GHG removals

Equations for the calculation of tCER and ICER [EB22 Anx15, para4-9]

Equations to calculate tCERs

\[
\text{(carbon stock in the project} - \text{carbon stock in the baseline)} \\
\text{in the carbon pools, at the time of verification} \\
\text{less} \\
\text{cumulative GHG emissions from the project} \\
\text{less} \\
\text{cumulative GHG emissions, outside the project boundary due to A/R} \\
\text{in the carbon pools outside the project boundary affected by A/R, at the time of verification}
\]

Equations to calculate ICERs

\[
\text{(increment of the carbon stock in the project} - \text{increment of the carbon stock in the baseline)} \\
\text{in the carbon pools, at the time of 2 verification period} \\
\text{less} \\
\text{GHG emissions from the project, between 2 verification period} \\
\text{less} \\
\text{cumulative GHG emissions, outside the project boundary due to A/R, between 2 verification period} \\
\text{less} \\
\text{(increment of the carbon stock in the baseline} - \text{increment of the carbon stock in the project)} \\
\text{in the carbon pools outside the project boundary affected by A/R, at the time of verification period respectively}
\]

Carbon pools [Glos, ver1 p12]

☞ Carbon pools are: above-ground biomass, belowground biomass, litter, dead wood and soil organic carbon.

☞ PPs may choose not to account for one or more carbon pools if they provide transparent and verifiable information that indicates that the choice will not increase the expected net GHG removals by sinks.

Project boundary [Glos, ver1 p22]

☞ The “project boundary” geographically delineates the A/R CDM project activity under the control of the PPs.

☞ An A/R CDM project activity may contain more than one discrete areas of land.

Pre-project emissions [EB22 Anx15, para1-2]

☞ Pre-project GHG emissions as a consequence of the implementation of the project activity has to be taken into account in the calculation of net GHG removals by sinks.

BOX: N₂O Emissions from fertilizer application

The EB agreed to guidance on accounting for emissions of N₂O from fertilizer application.

☞ Only direct (e.g. volatilization), and not indirect (e.g. run-off), emissions of N₂O from application of fertilizers within the project boundary shall be accounted for in A/R project activities;

☞ If the only source of N₂O emissions, which is located outside the project boundary is due to the application of fertilizer in nurseries supplying seedlings to the A/R project activity, then these N₂O emissions (either direct or indirect), may be considered as negligible. [EB26 Rep, para50]

BOX: Losses of carbon from road construction

Losses of carbon in carbon pools due to the construction of access roads, within the project boundary, are negligible compared to net GHG removals by sinks over the crediting period. [EB24 Rep, para56(c)]
19. Small-scale A/R CDM

**Definition of small-scale A/R CDM project activity**
- Those that are expected to result in net GHG removals by sinks of less than 8,000 t-CO₂/year; [CMP/2005/8/Ad1, p62 para1(i)]
  - The average projected net GHG removals by sinks for each verification period shall not exceed 8,000 t-CO₂/year. [CP/2004/10/Ad2, p26 para1(b)]
- Developed or implemented by low-income communities and individuals as determined by the host Party. [CMP/2005/8/Ad1, p62 para1(i)]
  - Prior to the submission of the validation report to the EB, the DOE have received from the PPs a written declaration of that. [CMP/2005/8/Ad1, p85 para15(b)]

**Simplified modalities and procedures for small-scale A/R CDM project activity**
- In order to reduce transaction costs, modalities and procedures are simplified for small-scale A/R CDM project activities as follows: [CMP/2005/8/Ad1, p82 para1]
  - The requirements for the project design document are reduced;
  - Baseline methodologies by project type are simplified to reduce the cost of developing a project baseline;
  - Monitoring plans are simplified, including simplified monitoring requirements, to reduce monitoring costs;
  - The same operational entity may undertake validation, and verification and certification.
- Small-scale A/R CDM project activities shall be:
  - exempt from the share of proceeds to be used to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change;
  - entitled to a reduced level of the non-reimbursable fee for requesting registration and a reduced rate of the share of proceeds to cover administrative expenses of the CDM. [CMP/2005/8/Ad1, p83 para13]
  - The EB developed simplified baseline methodologies, for small-scale A/R CDM project activities, which is AR-AMS0001 Version 04. [EB28 Anx18]
  - There is a “Guidelines for completing the simplified project design document for small scale A/R (CDM-SSCAR-PDD) and the form for submissions on methodologies for small scale A/R CDM project activities (F-CDM-SSC-AR-Subm) Version -05.” [EB26 Anx21]

If a small-scale A/R CDM project activity results in net GHG removals by sinks greater than 8,000t of CO₂ per year, the excess removals will not be eligible for the issuance of tCERs or ICERs. [CMP/2005/8/Ad1, p62 para1(i)]

The “General principles for bundling” [EB21, Anx 21] may not be applicable mutatis mutandis in the context of bundles of small scale A/R project activities created for the purpose of validation. [EB32 Rep, para42]
20. Registry and international transaction log (ITL)

20-1. CDM registry

♦ The EB establishes and maintains a CDM registry to ensure the accurate accounting of the issuance, holding, transfer and acquisition of CERs by non-Annex I Parties. [CMP/2005/8/Ad1, p27 para1-2]
☞ The EB identifies a registry administrator to maintain the registry under its authority
☞ The CDM registry is in the form of a standardized electronic database, which enables the accurate, transparent and efficient exchange of data between national registries, the CDM registry and the international transaction log.
♦ The CDM registry will have the following accounts.

(1) One pending account for the EB, into which CERs are issued before being transferred to other accounts. [CMP/2005/8/Ad1, p27 para3(a)]

(2) Holding accounts for non-Annex I Parties of hosting a CDM project activity or requesting an account. [CMP/2005/8/Ad1, p27 para3(b)]

(3) Temporary accounts for Annex I Parties, and PPs from such Parties, until national registries for such Parties and entities are operational, for the purposes of receiving CERs. [CP/2004/2, p15 para57]

(4) Cancellation accounts for excess CERs, to cancel KP units equal to excess CERs issued, as determined by the EB. [CMP/2005/8/Ad1, p27 para3(c)]

(5) Cancellation account for tCERs and ICERs, that have expired in a holding account of the CDM registry, and ICERs that have become ineligible. [CMP/2005/8/Ad1, p80 para3]

(6) Accounts for the share of proceeds, to hold and transfer CERs corresponding to the SOP-Adaptation. [CMP/2005/8/Ad1, p27 para3(d)]

Accounts described in (2)(3)(4)(6) above may have multiple accounts.
☞ Each account will have a unique account number comprising a Party/organization identifier and a number unique to that account. [CMP/2005/8/Ad1, p27 para5]
☞ KP units transferred to a cancellation account may not be further transferred or used for the purpose of demonstrating the compliance of a Party with its commitment.
☞ Each CER has a unique serial number and be held in only one account in one registry at a given time. [CMP/2005/8/Ad1, p27 para4]

Publicly accessible information through the CDM registry
The CDM registry shall make non-confidential information publicly available through the Internet. [CMP/2005/8/Ad1, p28 para9-12]
♦ Up-to-date information for account name, representative identifier, Party/organization identifier, etc for each account.
♦ CDM project activity information including project name, years of CER issuance, operational entities involved, downloadable documentation to be made publicly available, etc.
♦ Holding and transaction information relevant to the CDM registry, by serial number, for each calendar year

Monthly report [EB21 Rep, para70]
The CDM registry will provide the monthly reports to DNAs of respective Parties involved.
Each Annex I Party must establish and maintain a national registry to ensure the accurate accounting of the issuance, holding, transfer, acquisition, cancellation and retirement of ERUs, CERs, AAUs and RMUs and the carry-over of ERUs, CERs and AAUs. [CMP/2005/8/Ad2, p28 para17]

Each Party designates an organization as its registry administrator to maintain the national registry of that Party. [CMP/2005/8/Ad2, p28 para18]

Any 2 or more Parties may voluntarily maintain their respective national registries in a consolidated system, provided that each national registry remains distinct. [CMP/2005/8/Ad2, p28 para19]

A national registry is in the form of a standardized electronic database. The accurate, transparent and efficient exchange of data between national registries, the CDM registry and the transaction log should be ensured. [CMP/2005/8/Ad2, p28 para19]

Each national registry has the following accounts in order to account for KP units (AAUs, ERUs, CERs, tCERs, ICERs and RMUs): [CMP/2005/8/Ad2, p28 para21]

1. Holding account for the Party
2. Holding account for each legal entity authorized by the Party, to hold KP units under its responsibility.
3. Cancellation account for LULUCF activities, to cancel the KP units in case such activities result in a net source of GHG emissions.
4. Cancellation account for non compliance, to cancel the KP units equal to 1.3 times the amount of excess emissions in case the Party was not in compliance in the 1st commitment period
5. Cancellation account for other cancellations by the Party, to cancel KP units for purposes of cancellations other than (3) and (4) above.
6. tCER replacement account, to cancel AAUs, CERs, ERUs, RMUs and/or tCERs for the purposes of replacing tCERs prior to expiry. [CMP/2005/8/Ad1, p71 para43]
7. ICER replacement account, to cancel AAUs, CERs, ICERS, ERUs and/or RMUs for the purposes of replacing ICERs. [CMP/2005/8/Ad1, p71 para47]
8. Retirement account, used to retire KP units valid for that commitment period for use towards meeting the Party’s commitments. [CMP/2005/8/Ad2, p27 para14]

For accounts described in (1) (2)(3)(5), multiple accounts may be established.
Accounts described in (3) (4) (5) (6) (7) (8) should be established for each commitment period.
Each account must have a unique account number comprising a Party identifier and a unique number. [CMP/2005/8/Ad2, p28 para22]

KP units transferred to cancellation accounts may not be further transferred or carried over to the subsequent commitment period, or be used for the purpose of demonstrating the compliance of a Party. [CMP/2005/8/Ad2, p30 para35]

KP units transferred to the retirement account may not be further transferred or carried over to the subsequent commitment period. [CMP/2005/8/Ad2, p30 para35]
Every t-CO$_2$ of KP units is given a unique serial number.

Each KP unit shall be held in only one account in one registry at a given time.  

[CMP/2005/8/Ad2, p28 para20]

### Serial Number Identifiers

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Range or Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Originating Registry &lt;br&gt; Two-letter country codes in ISO3166, as of 01 January 2005</td>
</tr>
<tr>
<td>2</td>
<td>Unit Type &lt;br&gt; 1 = AAU, 2 = RMU, 3 = ERU converted from AAU, 4 = ERU converted from RMU, 5 = CER, 6 = tCER, 7 = ICER</td>
</tr>
<tr>
<td>3</td>
<td>Supplementary Unit Type &lt;br&gt; Blank for Kyoto-only Units, or as defined by STL (supplementary transaction log)</td>
</tr>
<tr>
<td>4</td>
<td>Unit Serial Block Start &lt;br&gt; Unique numeric values assigned by registry from 1 - 999,999,999,999,999</td>
</tr>
<tr>
<td>5</td>
<td>Unit Serial Block End &lt;br&gt; Unique numeric values assigned by registry from 1 - 999,999,999,999,999</td>
</tr>
<tr>
<td>6</td>
<td>Original Commitment Period &lt;br&gt; 1 - 99</td>
</tr>
<tr>
<td>7</td>
<td>Applicable Commitment Period &lt;br&gt; 1 - 99</td>
</tr>
<tr>
<td>8</td>
<td>LULUCF Activity &lt;br&gt; 1 = Afforestation and reforestation, 2 = Deforestation, 3 = Forest management, 4 = Cropland management, 5 = Grazing land management, 6 = Revegetation</td>
</tr>
<tr>
<td>9</td>
<td>Project Identifier &lt;br&gt; Unique numeric value assigned by registry for Project</td>
</tr>
<tr>
<td>10</td>
<td>Track &lt;br&gt; 1 or 2</td>
</tr>
<tr>
<td>11</td>
<td>Expiry Date &lt;br&gt; Expiry Date for tCERs or lCERs</td>
</tr>
</tbody>
</table>

[Data exchange standards for registry system under the Kyoto Protocol, draft technical specifications Annexes Non-paper, November 3, 2004, p F-2]
20-3. International transaction log (ITL)

♦ The UNFCCC secretariat establishes and maintain an international transaction log (ITL) to verify the validity of transactions, including issuance, transfer and acquisition between registries, cancellation, expiration and replacement (in case of tCER and ICER), retirement and the carry-over of KP units. [CMP/2005/8/Ad2, p31 para38] [CMP/2005/8/Ad1, p73 para55-56]
☞ The ITL is in the form of a standardized electronic database. The accurate, transparent and efficient exchange of data between national registries, the CDM registry and the ITL should be ensured.

♦ The ITL conducts the following automated check. [CMP/2005/8/Ad2, p31 para42]

(1) All transactions (issuance, transfer and acquisition between registries, cancellation, retirement and carry-over)
☞ units previously retired or cancelled; units existing in more than one registry; units for which a previously identified discrepancy has not been resolved;
☞ units improperly carried over; units improperly issued;
☞ the authorization of legal entities involved to participate in the transaction.

(2) Transfers between registries
☞ the eligibility of Parties involved in the transaction to participate in the KM;
☞ infringement upon the commitment period reserve of the transferring Party.

(3) Acquisitions of CERs from A/R CDM projects
☞ infringement of the limits (limitation for net acquisitions of tCERs and ICERs).

(4) Retirement of CERs
☞ the eligibility of the Party involved to use CERs to contribute to its compliance.

Prior to the completion of any transactions, the initiating registry sends a record of the proposed transaction to the ITL and, in the case of transfers to another registry, to the acquiring national registry. [CMP/2005/8/Ad2, p31 para41]

The ITL shall records, and makes publicly available, all transaction records and the date and time of completion of each transaction. [CMP/2005/8/Ad2, p32 para43(d)]

The ITL notifies the Annex I Party that a replacement of the tCER or ICER has to occur, 1 month prior to the expiry of each tCER or ICER. [CMP/2005/8/Ad1, p73 para55]
☞ Where an Annex I Party does not replace tCERs or ICERs in accordance with the rules, the ITL shall forward a record of non-replacement to the secretariat, for consideration as part of the review process for the relevant Party, under Art.8 of the KP, to the EB and to the Party concerned. [CMP/2005/8/Ad1, p73 para56]

BOX: In case a discrepancy is notified in the automated check by the ITL
☞ The initiating registry shall terminate the transaction, notify the ITL and, in the case of transfers to another registry, the acquiring registry of the termination. The ITL shall forward a record of the discrepancy to the secretariat for consideration as part of the review process for the relevant Party or Parties under Article 8. [CMP/2005/8/Ad2, p32 para43(a)]
☞ In the event of a failure by the initiating registry to terminate the transaction, KP units involved in the transaction shall not be valid for use towards compliance with commitments, until the problem has been corrected and questions have been resolved.
⇒ The Party shall perform any necessary corrective action within 30 days. [CMP/2005/8/Ad2, p32 para43(b)]
**SECTION A. General description of project activity**

<table>
<thead>
<tr>
<th>A.1. Title of the project activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.2. Description of the project activity</td>
</tr>
<tr>
<td>A.3. Project participants</td>
</tr>
<tr>
<td>A.4. Technical description of the project activity</td>
</tr>
<tr>
<td>A.4.1. Location of the project activity</td>
</tr>
<tr>
<td>A.4.1.1. Host Party(ies)</td>
</tr>
<tr>
<td>A.4.1.2. Region/State/Province etc.</td>
</tr>
<tr>
<td>A.4.1.3. City/Town/Community etc.</td>
</tr>
<tr>
<td>A.4.1.4. Detail of physical location, including information allowing the unique identification of this project activity:</td>
</tr>
<tr>
<td>A.4.2. Category(ies) of project activity</td>
</tr>
<tr>
<td>A.4.3. Technology to be employed by the project activity</td>
</tr>
<tr>
<td>A.4.4. Estimated amount of emission reductions over the chosen crediting period</td>
</tr>
<tr>
<td>A.4.5. Public funding of the project activity</td>
</tr>
</tbody>
</table>

**SECTION B. Application of a baseline and monitoring methodology**

| B.1. Title and reference of the approved baseline and monitoring methodology applied to the project activity |
| B.2. Justification of the choice of the methodology and why it is applicable to the project activity |
| B.3. Description of the sources and gases included in the project boundary |
| B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario |
| B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality) |
| B.6. Emission reductions |
| B.6.1. Explanation of methodological choices |
| B.6.2. Data and parameters that are available at validation |
| B.6.3. Ex-ante calculation of emission reductions |
| B.6.4. Summary of the ex-ante estimation of emission reductions |
| B.7. Application of the monitoring methodology and description of the monitoring plan |
| B.7.1. Data and parameters monitored |
| B.7.2. Description of the monitoring plan |
| B.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies) |
### SECTION C. Duration of the project activity / Crediting period

#### C.1. Duration of the project activity
- C.1.1. Starting date of the project activity
- C.1.2. Expected operational lifetime of the project activity

#### C.2. Choice of crediting period and related information
- C.2.1. Renewable crediting period
  - C.2.1.1. Starting date of the 1st crediting period
  - C.2.1.2. Length of the 1st crediting period
- C.2.2. Fixed crediting period
  - C.2.2.1. Starting date
  - C.2.2.2. Length

### SECTION D. Environmental impacts

#### D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts

#### D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party

### SECTION E. Stakeholders’ comments

#### E.1. Brief description of how comments by local stakeholders have been invited and compiled

#### E.2. Summary of the comments received

#### E.3. Report on how due account was taken of any comments received

### Annex 1. Contact information on participants in the project activity

### Annex 2. Information regarding public funding

### Annex 3. Baseline information

### Annex 4. Monitoring information
1-2. Proposed new baseline and monitoring methodology (CDM-NM)

**Revisions to the CDM-NM do not affect project activities:** [PDD GL ver6.2, p4 para11]

- Submitted to the OEs prior to the adoption of the revised CDM-NM;
- Submitted to the OEs within a month following the adoption of the revised CDM-NM;
- The EB will not accept documentation using a previous version of the CDM-NM 3 months after the adoption of the new version.

(Version 02) [EB32 Anx17]

### SECTION I. Summary and applicability of the baseline and monitoring methodologies

1. Methodology title (for baseline and monitoring)
   Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

2. Selected baseline approach
   (from paragraph 48 of the CDM modalities and procedures)
   - Explanation/justification of choice:
   - Meth Panel Recommendation: (to be completed by MP)

3. Applicability conditions
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

4. Summary description of major baseline and monitoring methodological steps
   a. Baseline methodology
   - Meth Panel Recommendation: (to be completed by MP)
   b. Monitoring methodology

### SECTION II. Baseline methodology description

1. Project boundary
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

2. Procedure for selection of the most plausible baseline scenario
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

3. Additionality
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

4. Baseline emissions
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

### SECTION III. Monitoring methodology description

1. Monitoring procedures
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

2. Data and parameters monitored
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

### SECTION IV. Reference and other information

1. Methodology title (for baseline and monitoring)
   Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

2. Leakage
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

3. Emissions reductions
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

4. Changes required for methodology implementation in 2nd and 3rd crediting periods
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

5. Project emissions
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

6. Data and parameters not monitored
   - Methodology procedure:
   - Meth Panel Recommendation: (to be completed by MP)
   - Explanation/justification:

7. Meth Panel Recommendation: (to be completed by MP)
   - Methodology procedure:
   - Explanation/justification:

8. Meth Panel Recommendation: (to be completed by MP)
   - Methodology procedure:
   - Explanation/justification:

9. Meth Panel Recommendation: (to be completed by MP)
   - Methodology procedure:
   - Explanation/justification:

**Attachment 1. CDM documents**
**SECTION A. General description of small-scale project activity**

- **A.1. Title of the small-scale project activity**
- **A.2. Description of the small-scale project activity**
- **A.3. (Same as CDM-PDD)**
- **A.4. Technical description of the small-scale project activity**
  - **A.4.1. Location of the small-scale project activity**
    - **A.4.1.1 – A.4.1.4. (Same as CDM-PDD)**
  - **A.4.2. Type and category(ies) and technology/measure of the small-scale project activity**
  - **A.4.3. Estimated amount of emission reductions over the chosen crediting period**
  - **A.4.4. Public funding of the small-scale project activity**
  - **A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity**

**SECTION B. Application of a baseline and monitoring methodology**

- **B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity**
- **B.2. Justification of the choice of the project category**
- **B.3. Description of the project boundary**
- **B.4. Description of baseline and its development**
- **B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity**
- **B.6 – B.8. (Same as CDM-PDD)**

**SECTION C. (Same as CDM-PDD)**

**SECTION D. Environmental impacts**

- **D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity**
- **D.2. (Same as CDM-PDD)**

**SECTION E. Stakeholders’ comments**

- **E.1. Brief description how comments by local stakeholders have been invited and compiled**
- **E.2 – E.3. (Same as CDM-PDD)**

**Annex 1 – 4. (Same as CDM-PDD)**

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**Attachment 2. SSC documents**

**2-1. Project Design Document for small-scale project activities (CDM-SSC-PDD)**

- Revisions come into effect once adopted by the EB.
- Revisions to the CDM-SSC-PDD do not affect project activities:
  - Already validated, or already submitted to the OE for validation, prior to the adoption of the revised CDM-SSC-PDD;
  - Submitted to the OEs within a month following the adoption of the revised CDM-PDD;
- The EB will not accept documentation using the previous version of the CDM-PDD **6 months after** the adoption of a new version.

(Version 03 - in effect as of 22 December 2006) [EB28 Anx34]
If project activities wishing to be bundled, a form with information related to the bundle (F-CDM-BUNDLE) must be included in the submission. [SSC GL ver4, p19 para8]

**SECTION A. General description of the Bundle**

- A.1. Title of the Bundle: (Include cross references to PDD/s)
- A.2. Version and Date: (Provide the date and version number of the form, include the version and dates of cross referenced PDD/s)
- A.3. Description of the Bundle and the subbundles
- A.4. Project participants

**B. Technical description of the Bundle**

- B.1. Location of the Bundle
  - B.1.1. Host Party(ies)
  - B.1.2. Regions/States/Provinces etc: (provide information in tabular form)
  - B.1.3. Cities/Towns/Communities etc: (provide information in tabular form)
  - B.1.4. Details of physical locations, including information allowing the unique identification of this Bundle
- B.2. Type/s, Category(ies) and Technology/(ies)/Measure/(s) of the bundle
- B.3. Estimated amount of emission reductions over the chosen crediting period

**C. Duration of the project activity / Crediting period**

- C.1. Duration of the Bundle
  - C.1.1. Starting date of the Bundle
  - C.1.2. Expected operational lifetime of the project activities
- C.2. Choice of crediting period and related information
  - C.2.1. Renewable crediting period
    - C.2.1.1. Starting date of the first crediting period
    - C.2.1.2. Length of the first crediting period
  - C.2.2. Fixed crediting period
    - C.2.2.1. Starting date
    - C.2.2.2. Length

**SECTION D. Application of a monitoring methodology**

Annex 1. Contact information on participants in the bundle

[SSC GL ver4, p21]

**Box: Use of a single PDD covering all activities** [SSC GL ver4, p20 para17-18]

☞ If all project activities in the bundle belong to the same type, same category and technology/measure, PPs may submit a single CDM-SSC-PDD covering all activities in the bundle. In this case (a single PDD is used) a single verification and certification report shall be submitted by the DOE.

☞ In all other cases (if the bundle includes project activities with (a) the same type, same category and different technology/measure; (b) same type, different categories and technologies/measures and; and (c) different types), PPs would have to make the submission of the bundle using a CDM-SSC-PDD for each of the project activities contained in the bundle. In these cases a single verification and certification report can be submitted for the bundle provided that it appraises each of the project activities of the bundle separately and covers the same verification period.
## Attachment 3. CDM Programme of activities related document form

### 3-1. Programme of Activities Design Document Form (CDM-PoA-DD)

This form is for the submission of a CDM PoA whose CPAs apply a large scale approved methodology. At the time of requesting registration this form must be accompanied by a CDM-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-CPA-DD (using a real case).

### SECTION A. General description of programme of activities (PoA)

- **A.1. Title of the programme of activities**
- **A.2. Description of the programme of activities**
- **A.3. Coordinating/managing entity and participants of POA**
- **A.4. Technical description of the programme of activities**
  - A.4.1. Location of the programme of activities
    - A.4.1.1. Host Party(ies)
    - A.4.1.2. Physical/Geographical boundary
  - A.4.2. Description of a typical CDM programme activity (CPA)
    - A.4.2.1. Technology or measures to be employed by the CPA
    - A.4.2.2. Eligibility criteria for inclusion of a CPA in the PoA
  - A.4.3. Assessment and demonstration of additionality
  - A.4.4. Operational, management and monitoring plan for the PoA
    - A.4.4.1 Operational and management plan
    - A.4.4.2. Monitoring plan
  - A.4.5. Public funding of the programme of activities
  - A.4.6. Estimated amount of net anthropogenic GHG removals by sinks over the chosen crediting period

### SECTION B. Duration of the programme of activities

- **B.1 Starting date of the programme of activities**
- **B.2 Length of the programme of activities**

### SECTION C. Environmental Analysis

- **C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken**
- **C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts**
- **C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA)**

### SECTION D. Stakeholders’ comments

- **D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice**
- **D.2. Brief description how comments by local stakeholders have been invited and compiled**
- **D.3. Summary of the comments received**
- **D.4. Report on how due account was taken of any comments received**

### SECTION E. Application of a baseline and monitoring methodology

- **E.1. Title and reference of the approved baseline and monitoring methodology applied to each CPA included in the PoA**
- **E.2. Justification of the choice of the methodology and why it is applicable to each CPA**
- **E.3. Description of the sources and gases included in the CPA boundary**
- **E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario**
- **E.5. Assessment and demonstration of additionality of CPA**
  - E.5.1. Assessment and demonstration of additionality for a typical CPA
  - E.5.2. Key criteria and data for assessing additionality of a CPA
- **E.6. Estimation of Emission reductions of a CPA**
  - E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical CPA
  - E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a CPA
  - E.6.3. Data and parameters that are to be reported in CDM-CPA-DD form
- **E.7. Application of the monitoring methodology and description of the monitoring plan**
  - E.7.1. Data and parameters to be monitored by each CPA
  - E.7.2. Description of the monitoring plan for a CPA
- **E.8. Date of completion of the application of the baseline study and monitoring methodology and the name of the responsible person(s)/entity(ies)**

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**Annex 1 Contact Information On Coordinating/Managing Entity and Participant in the Programme of Activities**

**Annex 2 Information regarding Public Funding**

**Annex 3 Baseline Information**

**Annex 4 Monitoring Information**
3-2. CDM Programme Activities Design Document Form (CDM-CPA-DD)

The coordinating/managing entity shall prepare a CDM-CPA-DD, that is specified to the proposed PoA by using the provisions stated in the PoA DD.

At the time of requesting registration the PoA DD must be accompanied by a CDM-CPA-DD form that has been specified for the proposed PoA, as well as by one completed CDM-CPA-DD (using a real case). After the first CPA, every CPA that is added over time to the PoA must submit a completed CDM-CPA-DD.

SECTION A. General description of CDM programme activity (CPA)

A.1. Title of the CPA
A.2. Description of the CPA
A.3. Entity/individual responsible for the CPA
A.4. Technical description of the CPA
  A.4.1. Identification of the CPA
    A.4.1.1. Host Party
    A.4.1.2. Geographic reference of other means of identification allowing the unique identification of the CPA
  A.4.2. Duration of the CPA
    A.4.2.1 Starting date of the CPA
    A.4.2.2 Expected operational lifetime of the CPA
  A.4.3. Choice of the crediting period and related information
    A.4.3.1 Starting date of the crediting period:
    A.4.3.2 Length of the crediting period, first crediting period if the choice is renewable CP
  A.4.4. Estimated amount of emission reductions over the chosen crediting period
  A.4.5. Public funding of the CPA
  A.4.6. Confirmation that CPA is neither registered as an individual CDM project activity nor is part of another Registered PoA

SECTION B. Eligibility of CPA and Estimation of emissions reductions

B.1. Title and reference of the Registered PoA to which CPA is added
B.2. Justification of the why the CPA is eligible to be included in the Registered PoA
B.3. Assessment and demonstration of additionality of the CPA, as per eligibility criteria listed in the Registered PoA
B.4. Description of the sources and gases included in the project boundary and proof that the CPA is located within the geographical boundary of the registered PoA.

B.5. Emission reductions
  B.5.1. Data and parameters that are available at validation
  B.5.2. Ex-ante calculation of emission reductions
  B.5.3. Summary of the ex-ante estimation of emission reductions

B.6. Application of the monitoring methodology and description of the monitoring plan
  B.6.1. Description of the monitoring plan

SECTION C. Environmental analysis

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken
C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities (PoA)

SECTION D. Stakeholders’ comments

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice
D.2. Brief description how comments by local stakeholders have been invited and compiled
D.3. Summary of the comments received
D.4. Report on how due account was taken of any comments received

Annex 1 Contact Information On Entity/Individual Responsible for the CPA
Annex 2 Information regarding Public Funding
Annex 3 Baseline Information
Annex 4 Monitoring Information
**SECTION A. General description of Small-Scale programme of activities (PoA)**

A.1. Title of the Small-Scale programme of activities
A.2. Description of the Small-Scale programme of activities
A.3. Coordinating/managing entity and participants of SSC-PoA
A.4. Technical description of the Small-Scale programme of activities
   A.4.1. Location of the programme of activities
      A.4.1.1. Host Party(ies)
      A.4.1.2. Physical/Geographical boundary
   A.4.2. Description of a typical Small-Scale CDM programme activity
      A.4.2.1 Technology or measures to be employed by the SSC-CPA
      A.4.2.2 Eligibility criteria for inclusion of a SSC-CPA in the PoA
   A.4.3. Assessment and demonstration of additionality
   A.4.4. Operational, management and monitoring plan for the programme of activities(PoA)
      A.4.4.1 Operational and management plan
      A.4.4.2. Monitoring plan
   A.4.5. Public funding of the programme of activities(PoA)

**SECTION B. Duration of the programme of activities (PoA)**

B.1 Starting date of the programme of activities
B.2. Length of the programme of activities

**SECTION C. Environmental analysis**

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken
C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities

**SECTION D. Stakeholders’ comments**

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice
D.2. Brief description how comments by local stakeholders have been invited and compiled
D.3. Summary of the comments received
D.4. Report on how due account was taken of any comments received

**SECTION E. Application of a baseline and monitoring methodology**

E.1. Title and reference of the approved SSC baseline and monitoring methodology applied to a SSC-CPA included in the PoA
E.2. Justification of the choice of the methodology and why it is applicable to a SSC-CPA
E.3. Description of the sources and gases included in the a SSC-CPA boundary
E.4. Description of how the baseline scenario is identified and description of the identified baseline scenario
E.5. Assessment and demonstration of additionality of a SSC-CPA
   E.5.1. Assessment and demonstration of additionality for a typical a SSC-CPA
   E.5.2. Key criteria and data for assessing additionality of a a SSC-CPA
   E.5.3. Key criteria and data for assessing additionality of a a SSC-CPA
E.6. Estimation of Emission reductions of a CPA
   E.6.1. Explanation of methodological choices, provided in the approved baseline and monitoring methodology applied, selected for a typical SSC-CPA
   E.6.2. Equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA
   E.6.3. Data and parameters that are to be reported in CDM-SSC-CPA-DD form
E.7. Application of the monitoring methodology and description of the monitoring plan
   E.7.1. Data and parameters to be monitored by each SSC-CPA
   E.7.2. Description of the monitoring plan for a SSC-CPA
   E.7.3. Date of completion of the application of the baseline study and monitoring methodologyand the name of the responsible person(s)/entity(ies)

Annex 1 Contact Information On Coordinating/Managing Entity and Participant in the Programme of Activities
Annex 2 Information regarding Public Funding
Annex 3 Baseline Information
Annex 4 Monitoring Information
**SECTION A. General description of Small-Scale CDM programme activity**

A.1. Title of the Small-Scale CPA
A.2. Description of the Small-Scale CPA
A.3. Entity/individual responsible for the Small-Scale CPA
A.4. Technical description of the Small-Scale CPA
  A.4.1. Identification of the Small-Scale CPA
    A.4.1.1. Host Party
    A.4.1.2. Geographic reference of other means of identification allowing the unique identification of the Small-Scale CPA
  A.4.2. Duration of the Small-Scale CPA
    A.4.2.1 Starting date of the Small-Scale CPA
    A.4.2.2 Expected operational lifetime of the Small-Scale CPA
  A.4.3. Choice of the crediting period and related information
    A.4.3.1 Starting date of the crediting period:
    A.4.3.2 Length of the crediting period, first crediting period if the choice is renewable CP
  A.4.4. Estimated amount of emission reductions over the chosen crediting period
A.4.5. Public funding of the CPA
A.4.6. Information to confirm that the proposed small-scale CPA is not a de-bundled component
A.4.7. Confirmation that small-scale CPA is neither registered as an individual CDM project activity or is part of another Registered PoA

**SECTION B. Eligibility of Small-Scale CPA and Estimation of emissions reductions**

B.1 Title and reference of the Registered PoA to which Small-Scale CPA is added
B.2. Justification of the why the Small-Scale CPA is eligible to be included in the Registered PoA
B.3. Assessment and demonstration of additionality of the Small-Scale CPA, as per eligibility criteria listed in the Registered PoA

**SECTION C. Environmental analysis**

C.1. Please indicate the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken. Justify the choice of level at which the environmental analysis is undertaken
C.2. Documentation on the analysis of the environmental impacts, including transboundary impacts
C.3. Please state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA, included in the programme of activities

**SECTION D. Stakeholders’ comments**

D.1. Please indicate the level at which local stakeholder comments are invited. Justify the choice
D.2. Brief description how comments by local stakeholders have been invited and compiled
D.3. Summary of the comments received
D.4. Report on how due account was taken of any comments received

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**Attachment 3. CDM Programme of activities related document form**
SECTION A. General description of the proposed A/R CDM project activity

A.1. Title of the proposed A/R CDM project activity
A.2. Description of the proposed A/R CDM project activity
A.3. Project participants
A.4. Technical description of the A/R CDM project activity
   A.4.1. Location of the proposed A/R CDM project activity
      A.4.1.1. Host Party(ies)
      A.4.1.2. Region/State/Province etc.
      A.4.1.3. City/Town/Community etc.
      A.4.1.4. Detailed geographic delineation of the project boundary, including information allowing the unique identification(s) of the proposed A/R CDM project activity
      A.4.1.5. Description of the present environmental conditions of the area planned for the proposed A/R CDM project activity, including a brief description of climate, hydrology, soils, ecosystems (including land use):
      A.4.1.6. Description of the presence, if any, of rare or endangered species and their habitats
   A.4.2. Species and varieties selected for the proposed A/R CDM project activity
   A.4.3. Description of legal title to the land, current land tenure and rights to tCERs / ICERs issued for the proposed A/R CDM project activity
   A.4.4. Technology to be employed by the proposed A/R CDM project activity
   A.4.5. Approach for addressing non-permanence
   A.4.6. Estimated amount of net anthropogenic GHG removals by sinks over the chosen crediting period

SECTION B. Duration of the project activity / crediting period

B.1. Starting date of the proposed A/R CDM project activity and of the crediting period
B.2. Expected operational lifetime of the proposed A/R CDM project activity
B.3. Choice of crediting period and related information
   B.3.1. Renewable crediting period, if selected
   B.3.2. Fixed crediting period, if selected

SECTION C. Application of an approved baseline and monitoring methodology

C.1. Assessment of the eligibility of land
C.2. Title and reference of the approved baseline and monitoring methodology applied to the proposed A/R CDM project activity
C.3. Assessment of the applicability of the selected approved methodology to the proposed A/R CDM project activity and justification of the choice of the methodology
C.4. Description of strata identified using the ex ante stratification
C.5. Identification of the baseline scenario
   C.5.1. Description of the application of the procedure to identify the most plausible baseline scenario (separately for each stratum defined in C.4., if procedures differ among strata)
   C.5.2. Description of the identified baseline scenario (separately for each stratum defined in Section C.4.)
C.6. Assessment and demonstration of additionality
C.7. Estimation of the ex ante baseline net GHG removals by sinks
C.8. Date of completion of the baseline study and the name of person(s)/entity(ies) determining the baseline
SECTION D. Estimation of \textit{ex ante} actual net GHG removals by sinks, leakage and estimated amount of net anthropogenic GHG removals by sinks over the chosen crediting period

D.1. Estimate of the \textit{ex ante} actual net GHG removals by sinks
D.2. Estimate of the \textit{ex ante} leakage

SECTION E. Monitoring plan

E.1. Monitoring of the project implementation
E.1.1. Monitoring of the project boundary
E.1.2. Monitoring of forest establishment
E.1.3. Monitoring of forest management
E.2. Sampling design and stratification
E.3. Monitoring of the baseline net GHG removals by sinks
E.3.1. Monitoring of the baseline net GHG removals by sinks (before start of the project), if required
E.3.2. Monitoring of the \textit{ex post} baseline net GHG removals by sinks (after start of the project), if required
E.4. Monitoring of the actual net GHG removals by sinks
E.4.1. Data to be collected in order to monitor the verifiable changes in carbon stock in the carbon pools within the project boundary resulting from the proposed A/R CDM project activity
E.4.2. Data to be collected in order to monitor the GHG emissions by the sources, measured in units of CO2 equivalent, that are increased as a result of the implementation of the proposed A/R CDM project activity within the project boundary
E.5. Leakage
E.5.1. If applicable, please describe the data and information that will be collected in order to monitor leakage of the proposed A/R CDM project activity
E.5.2. Please specify the procedures for the periodic review of implementation of activities and measures to minimize leakage
E.6. Quality control (QC) and quality assurance (QA) procedures undertaken for data monitored
E.7. Please describe the operational and management structure(s) that the project operator will implement in order to monitor actual GHG removals by sinks and any leakage generated by the proposed A/R CDM project activity
E.8. Name of person(s)/entity(ies) applying the monitoring plan

SECTION F. Environmental impacts of the proposed A/R CDM project activity

F.1. Documentation on the analysis of the environmental impacts, including impacts on biodiversity and natural ecosystems, and impacts outside the project boundary of the proposed A/R CDM project activity
F.2. If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken an environmental impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to supporting documentation
F.3. Description of planned monitoring and remedial measures to address significant impacts referred to in section F.2. above

SECTION G. Socio-economic impacts of the proposed A/R CDM project activity

G.1. Documentation on the analysis of the major socio-economic impacts, including impacts outside the project boundary of the proposed A/R CDM project activity
G.2. If any negative impact is considered significant by the project participants or the host Party, a statement that project participants have undertaken a socio-economic impact assessment, in accordance with the procedures required by the host Party, including conclusions and all references to supporting documentation
G.3. Description of planned monitoring and remedial measures to address significant impacts referred to in section G.2 above

SECTION H. Stakeholders’ comments

H.1. Brief description of how comments by local stakeholders have been invited and compiled
H.2. Summary of the comments received
H.3. Report on how due account was taken of any comments received

Annex 1. Contact information on participants in the project activity
Annex 2. Information regarding public funding
Annex 3. Baseline information
Annex 4. Monitoring information
4-2. Proposed new baseline and monitoring methodology for A/R (CDM-AR NM)

 SECTION I. Summary and applicability of the baseline and monitoring methodologies

1. Methodology title (for baseline and monitoring) and history of submission
   Methodology title:
   A/R WG recommendation (to be completed by the A/R WG):

2. Selected baseline approach for A/R CDM project activities
   Choose one (delete others):
   Methodology procedure: Explanation/justification of choice:

3. Applicability conditions
   Methodology procedure: Explanation/justification A/R WG recommendation

4. Selected carbon pools
   Explanation/justification of choice A/R WG recommendation

5. Summary description of major baseline and monitoring methodological steps
   a. Baseline methodology
   b. Monitoring methodology A/R WG recommendation

 SECTION II. Baseline methodology description

1. Project boundary
   Methodology procedure: A/R WG recommendation

2. Procedure for selection of the most plausible baseline scenario
   Methodology procedure: Explanation/justification A/R WG recommendation

3. Additonality
   Methodology procedure: Explanation/justification A/R WG recommendation

4. Estimation of baseline net GHG removals by sinks
   Methodology procedure: Explanation/justification A/R WG recommendation

5. Ex ante actual net GHG removals by sinks
   Methodology procedure: Explanation/justification A/R WG recommendation

6. Leakage
   Methodology procedure: Explanation/justification A/R WG recommendation

7. Ex ante net anthropogenic GHG removal by sinks
   Methodology procedure: A/R WG recommendation

8. Data needed for ex ante estimations
   A/R WG recommendation (to be completed by the A/R WG):

9. Other information
   A/R WG recommendation (to be completed by the A/R WG):

 SECTION III: Monitoring methodology description

1. Monitoring of project implementation
   Methodology procedure: Explanation/justification A/R WG recommendation

2. Sampling design and stratification
   Methodology procedure: Explanation/justification A/R WG recommendation

3. Determination of ex post baseline net GHG removals by sinks, if required
   Methodology procedure: Explanation/justification A/R WG recommendation

4. Data to be collected and archived for the determination of ex post baseline net GHG removals by sinks, if required
   A/R WG recommendation (to be completed by the A/R WG):

5. Calculation of ex post actual net GHG removal by sinks
   Methodology procedure: A/R WG recommendation

6. Data to be collected and archived for ex post actual net GHG removals by sinks
   A/R WG recommendation (to be completed by the A/R WG):

7. Leakage
   Methodology procedure: Explanation/justification A/R WG recommendation

8. Data to be collected and archived for leakage
   A/R WG recommendation (to be completed by the A/R WG):

9. Ex post net anthropogenic GHG removal by sinks
   Methodology procedure: A/R WG recommendation

10. Conservative approach and uncertainties
    Methodology procedure: Explanation/justification

11. Other information
    A/R WG recommendation:

 SECTION IV: Lists of variables, acronyms and references

1. List of variables used in equations
2. List of acronyms used in the methodologies
3. References
<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Attachment 5. Methodological tools</strong></td>
<td></td>
</tr>
<tr>
<td>Tool for the demonstration and assessment of additionality (ver 3)</td>
<td>This document provides for a step-wise approach to demonstrate and assess additionality.</td>
</tr>
<tr>
<td><strong>[EB29 Anx6]</strong></td>
<td></td>
</tr>
<tr>
<td>Combined tool to identify the baseline scenario and demonstrate additionality (ver 2.1)</td>
<td>This tool provides for a step-wise approach to identify the baseline scenario and simultaneously demonstrate additionality.</td>
</tr>
<tr>
<td><strong>[EB28 Anx14]</strong></td>
<td></td>
</tr>
<tr>
<td>Tool for the demonstration and assessment of additionality in A/R CDM project activities</td>
<td>This document provides for a step-wise approach to demonstrate additionality in A/R CDM projects.</td>
</tr>
<tr>
<td><strong>[EB21 Anx16]</strong></td>
<td></td>
</tr>
<tr>
<td>Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site</td>
<td>This tool calculates baseline emissions of methane from waste that would in the absence of the project activity be disposed at solid waste disposal sites (SWDS). Emission reductions are calculated with a first order decay (FOD) model. The tool is applicable in cases where the solid waste disposal site where the waste would be dumped can be clearly identified. The tool is not applicable to hazardous wastes.</td>
</tr>
<tr>
<td><strong>[EB26 Anx14]</strong></td>
<td></td>
</tr>
<tr>
<td>Tool to determine project emissions from flaring gases containing methane</td>
<td>This tool provides procedures to calculate project emissions from flaring of a residual gas stream (RG) containing methane. This tool is applicable under the following conditions:</td>
</tr>
<tr>
<td></td>
<td>⇒ The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;</td>
</tr>
<tr>
<td></td>
<td>⇒ The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane).</td>
</tr>
<tr>
<td><strong>[EB28 Anx13]</strong></td>
<td></td>
</tr>
<tr>
<td>Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion</td>
<td>This tool provides procedures to calculate project and/or leakage CO₂ emissions from the combustion of fossil fuels. It can be used in cases where CO₂ emissions from fossil fuel combustion is calculated based on the quantity of fuel combusted and its properties.</td>
</tr>
<tr>
<td><strong>[EB32 Anx9]</strong></td>
<td></td>
</tr>
<tr>
<td>Tool to calculate project emissions from electricity consumption</td>
<td>This tool provides procedures to estimate the project emissions associated with the consumption of electricity by the proposed CDM project activity. For example, the operation of plants (e.g. waste treatment plants, biofuel generation plants, etc) may involve the consumption of auxiliary electricity. This tool is not applicable in cases where captive renewable power generation technologies installed at the project site supply the electricity consumed by the project activity. This tool also refers to the “Tool to calculate project or leakage CO₂ emissions from fossil fuel combustion”.</td>
</tr>
<tr>
<td><strong>[EB32 Anx10]</strong></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Description</td>
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<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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</tbody>
</table>
| Draft methodological tool for the calculation of the number of sample plots for measurements within A/R CDM project activities [EB31 Anx15] | This tool is applicable if sample plots are used for monitoring purposes. The tool estimates the number of permanent sample plots needed for monitoring changes in carbon pools at a desired precision level. Permanent sample plots are preferred when:  
⇒ Measurements are to be made at specific time intervals;  
⇒ High covariance is expected between observations at successive sampling events. |
| Draft tool for testing the significance of GHG emissions in A/R CDM project activities [EB31 Anx16] | This tool facilitates the determination of which GHG emissions by sources, possible decreases in carbon pools, and leakage emissions are insignificant for a particular CDM A/R project activity. The sum of decreases in carbon pools and increases in emissions that may be neglected shall be less than 5% of the total decreases in carbon pools and increases in emissions, or less than 5% of net anthropogenic removals by sinks, whichever is lower. |
| Estimation of GHG emissions related to fossil fuel combustion in A/R CDM project activities [EB33 Anx14] | This tool allows for estimating increase in GHG emissions (both project and leakage emissions) related to fossil fuel combustion in A/R CDM project activities. The sources of emissions are: vehicles (mobile sources, such as trucks, tractors, etc.) and mechanical equipments (e.g., portable equipment such as chain saws and stationary equipment such as, water pumps) required by the A/R CDM project activity. |
| Procedure to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R project activities [EB33 Anx15] | This tool provides guidelines to determine when accounting of the soil organic carbon pool may be conservatively neglected in CDM A/R projects. The guidelines have been developed from a review of recent scientific peer-reviewed literature, and with reference to IPCC literature as appropriate. Where available evidence on change in the soil organic carbon pool under land use or land-use change remains limited, a conservative approach has been adopted. |
| "Estimation of direct nitrous oxide emission from nitrogen fertilization [EB33 Anx16] | This tool allows for estimating direct nitrous oxide emission from applying nitrogenous fertilizer within project boundary of an A/R CDM project activity, for both ex ante and ex post estimation. |
The toll provides a general framework for demonstrating and assessing additionality and is to be applicable to a wide range of project types. Particular project types may require adjustments to this framework. The use of this tool to assess and determine additionality does not replace the need for the baseline methodology to provide for a stepwise approach justifying the selection and determination of the most plausible baseline scenario alternatives. Project participants (PPs) may also propose other tools for the demonstration of additionality to the EB for its consideration.

### Step 1. Identification of alternatives to the project activity consistent with current laws and regulations

**Sub-step 1a. Define alternatives to the project activity:**
- Identify realistic and credible alternative scenario(s) available to the PPs or similar project developers that provide outputs or services comparable with the proposed CDM project activity.

**Sub-step 1b. Enforcement of applicable laws and regulations:**
- The alternative scenario(s) shall be in compliance with all mandatory applicable legal and regulatory requirements. If an alternative does not comply with all mandatory applicable legislation and regulations, then show that those applicable legal or regulatory requirements are systematically not enforced;
- If the proposed project activity is the only alternative amongst the ones considered by the PPs that is in compliance with all mandatory regulations with which there is general compliance, then the proposed CDM project activity is not additional.

### Step 2. Investment analysis

Determine whether the proposed project activity is economically or financially less attractive than at least one other alternative, identified in step 1, without the revenue from the sale of CERs.

**Sub-step 2a. Determine appropriate analysis method:**
- If the CDM project activity generates no financial or economic benefits other than CDM related income, then apply the simple cost analysis (Option I). Otherwise, use the investment comparison analysis (Option II) or the benchmark analysis (Option III).

**Sub-step 2b.**
- **Option I. Apply simple cost analysis**
  - Document the costs associated with the CDM project activity and demonstrate that the activity produces no economic benefits other than CDM related income.

- **Option II. Apply investment comparison analysis**
  - Identify the financial indicator, such as IRR, NPV, cost benefit ratio, or unit cost of service most suitable for the project type and decision-making context.

- **Option III. Apply benchmark analysis**
  - Identify the financial indicator. Identify the relevant benchmark value. Benchmarks can be derived from government bond rates, estimates of the cost of financing and required return on capital, and a company internal benchmark.

**Sub-step 2c. Calculation and comparison of financial indicators (only applicable to options II and III):**
- Present in the CDM-PDD a clear comparison of the financial indicator for the proposed CDM activity (excluding CER revenues) and:
  - The alternatives if Option II is used, or the financial benchmark if Option III is used. If the CDM project activity has a less favourable indicator, then the CDM project activity cannot be considered as financially attractive.

**Sub-step 2d. Sensitivity analysis (only applicable to options II and III):**
- Include a sensitivity analysis that shows whether the conclusion is robust to reasonable variations in the critical assumptions.
Step 3. Barrier analysis
Determine whether the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity, and do not prevent the implementation of at least one of the alternatives. Provide transparent and documented evidence, and offer conservative interpretations of this documented evidence, as to how it demonstrates the existence and significance of the identified barriers.
If the CDM does not alleviate the identified barriers that prevent the proposed project activity from occurring, then the project activity is not additional.

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed project activity:
☞ Establish that there are realistic and credible barriers that would prevent the implementation of the type of proposed project activity from being carried out if the project activity was not registered as a CDM activity. Such barriers may include, among others, investment barriers other than the economic/financial barriers in Step 2 above, technological barriers, barriers due to prevailing practice and other barriers.

Sub-step 3b. Show that the identified barriers would not prevent the implementation of at least one of the alternatives (except the proposed project activity):
☞ If the identified barriers also affect other alternatives, explain how they are affected less strongly than they affect the proposed CDM project activity.
Pass

Step 4. Common practice analysis
The above generic additionality tests shall be complemented with an analysis of the extent to which the proposed project type has already diffused in the relevant sector and region. This test is a credibility check to complement the investment analysis (Step 2) or barrier analysis (Step 3).

Sub-step 4a. Analyze other activities similar to the proposed project activity:
☞ Provide an analysis of any other activities implemented previously or currently underway that are similar to the proposed project activity. Other CDM project activities are not to be included in this analysis.

Sub-step 4b. Discuss any similar options that are occurring:
☞ If similar activities are identified above, then it is necessary to demonstrate why the existence of these activities does not contradict the claim that the proposed project activity is financially unattractive or subject to barriers.
Pass

The proposed CDM project activity is additional
**Applicability**

This methodology is applicable to grid-connected renewable power generation project activities under the following conditions:

- Applies to electricity capacity additions from,
  - Run-of-river hydro power plants; hydro power projects with existing reservoirs where the volume of the reservoir is not increased, new hydro electric power projects with reservoirs having power densities (installed power generation capacity divided by the surface area at full reservoir level) greater than 4 W/m², wind sources, geothermal sources, solar sources, and wave and tidal sources.
- The geographic and system boundaries for the relevant electricity grid can be clearly identified and information on the characteristics of the grid is available.

**Project boundary**

- For the baseline determination, PPs shall only account CO₂ emissions from electricity generation in fossil fuel fired power that is displaced due to the project activity.
- For geothermal project activities and new hydroelectric projects with reservoirs, see EB24 Anx7, p3.
- The spatial extent of the project boundary includes the project site and all power plants connected physically to the electricity system that the CDM project power plant is connected to.
- For the purpose of determining the build margin (BM) and operating margin (OM) emission factor, a (regional) project electricity system is defined by the spatial extent of the power plants that can be dispatched without significant transmission constraints.
- Where the application of this methodology does not result in a clear grid boundary, given country specific variations in grid management policies:
  - Use the delineation of grid boundaries as provided by the DNA of the host country if available; or
  - Where DNA guidance is not available, in large countries with layered dispatch systems the regional grid definition should be used. In other countries, the national (or other largest) grid definition should be used by default.
- For the purpose of determining the emission factor of the baseline emissions, PPs shall take into account electricity imports and exports. (for the detail, see [EB24 Anx7, p3])

**Leakage**

PPs do not need to consider emissions arising due to activities such as power plant construction, fuel handling (extraction, processing, and transport), and land inundation as leakage in applying this methodology.
Baseline and Emission Reductions

**BEy**
The GHG emission reduction achieved by the project activity during a given year “y”

**PEy**
Project emissions

**BEy** = **EFy** * **EGy**

Baseline emissions

The electricity supplied by the project activity to the grid in [MWh]

**EFy** (Combined Margin EF) = \( w_{OM} \) * **EFOM,y** + \( w_{BM} \) * **EFBM,y**

**EFOM,y** (the Operating Margin emission factor) [t-CO2/MWh]

**EFBM,y** (the Build Margin emission factor) [t-CO2/MWh]

Power plant capacity additions registered as CDM project activities should be excluded from all calculations below.

- The baseline emissions factor in [t-CO2/MWh]
- The electricity supplied by the project activity to the grid in [MWh]

The GHG emission reduction achieved by the project activity during a given year “y” = Baseline emissions - Project emissions

PEy = 0 except for geothermal project activities

Power plant capacity additions registered as CDM project activities should be excluded from all calculations below.

**EFOM,y** is calculated based on one of the following 4 methods:

1. Dispatch Data Analysis OM
   - Are there enough data available to analyze dispatch data?
     - Yes
     - No

2. Simple OM
   - Do low-cost/must run resources constitute less than 50% of total grid generation in: 1) average of the 5 most recent years, or 2) based on long-term normals for hydroelectricity production?
     - Yes
     - No

3. Simple adjusted OM
   - Are there enough data available to apply Simple Adjusted OM?
     - Yes
     - No

4. Average OM
   - Low operating cost and must run resources typically include hydro, geothermal, wind, low-cost biomass, nuclear and solar generation. If coal is obviously used as must-run, it should also be included in this list, i.e. excluded from the set of plants.

(for details, see [EB24 Anx7,p5])
Calculation methods for $\text{EF}_{\text{OM,y}}$ (the Operating Margin emission factor) [t-CO$_2$/MWh]

(1) Dispatch Data Analysis OM [EB24 Anx7, p8]
   (i) Obtain from a national dispatch center, the grid system dispatch order of operation for each power plant of the system, and the amount of power [MWh] that is dispatched from all plants in the system during each hour that the project activity is operating.
   (ii) At each hour in a year, stack each plants generation using the merit order. The set of plants consists of those plants at the top of the stack (i.e., having the least merit), whose combined generation comprises 10% of total generation from all plants during that hour (including imports to the extent they are dispatched).
   (iii) Calculate the hourly generation-weighted average emissions per electricity unit [t-CO$_2$/MWh] of the set of power plants in the top 10% of grid system dispatch order during each hour in a year.
   (iv) Multiply the hourly emission factor above by the generation of the CDM project [MWh] in each hour, which gives amount of CO$_2$ emissions [t-CO$_2$].
   (v) Divide the amount of CO$_2$ emissions above by the generation of the CDM project [MWh] in the year, which gives the Dispatch Data OM emission factor [t-CO$_2$/MWh].

(2) Simple OM [EB24 Anx7, p6]
   (i) Identify the generating sources delivering electricity to the grid, not including low-operating cost and must-run power plants, and including imports to the grid.
   (ii) The Simple OM emission factor [t-CO$_2$/MWh] is calculated as the generation-weighted average emissions per electricity unit of the generating sources above in a year.

(3) Simple Adjusted OM [EB24 Anx7, p7]
   (i) Separate the power sources (including imports) delivering electricity to the grid in low-cost/must-run power sources and other power sources.
   (ii) Calculate the generation-weighted average emissions per electricity unit [t-CO$_2$/MWh] of the set of power plants in a year for both low-cost/must-run power sources and other power sources.
   (iii) Calculate $\lambda$.
   (iv) The Simple Adjusted OM emission factor [t-CO$_2$/MWh] is calculated as 
   \[ \lambda \times (\text{emission factor of low-cost/must-run power sources}) + (1-\lambda) \times (\text{emission factor of other power sources}) \]

(4) Average OM [EB24 Anx7, p9]
   The average OM emission factor [t-CO$_2$/MWh] is calculated as the generation-weighted average emissions per electricity unit of all generating sources serving the system.

Calculation methods for $\text{EF}_{\text{BM,y}}$ (the Build Margin emission factor) [t-CO$_2$/MWh]

The EB agreed that in cases where PPs are required to calculate a build margin and the specific efficiency data required by an AM is not available they can use the most conservative factor, or the default factors, which may be reviewed over time by the EB, whichever is the most conservative. In such cases the PP must provide, in the PDD, full justification of why the chosen factor is the most conservative. The DOE should confirm the nonavailability of the local data and the conservativeness of the factors used in their validation report. [EB29 Rep, para74]
How to calculate $\lambda$ for the Simple Adjusted OM

1. Collect chronological load data for each hour of a year, and sort load data from highest to lowest MW level. Plot MW against 8760 hours in the year, in descending order.

2. Calculate total annual generation [MWh] from low-cost/must-run resources.

3. Plot a horizontal line across load duration curve such that the area under the curve [MW times hours] equals the total generation [MWh] from low-cost/must-run resources.

4. Determine “the Number of hours per year for which low-cost/must-run sources are on the margin”.

5. $\lambda = \frac{X}{8760}$

*If the lines do not intersect at step (3), then $\lambda$ is equal to zero.

Electricity imports and exports

- Electricity transfers from connected electricity systems to the CDM project electricity system are defined as **electricity imports** and electricity transfers to connected electricity systems are defined as **electricity exports**.

Electricity imports [EB24 Anx7, p3]

- Determining the OM emission factor
  - For imports from connected electricity system located in another country
    - The emission factor is 0 [t-CO$_2$/MWh]
  - For imports from connected electricity system located within the same country
    - 0 [t-CO$_2$/MWh]
    - The emission factor(s) of the specific power plant(s) from which electricity is imported, if and only if the specific plants are clearly known, or
    - The average emission rate of the importing grid, if and only if net imports do not exceed 20% of total generation in the project electricity system, or
    - The emission factor of the exporting grid, determined as described in “Baseline and Emission Reductions,” if net imports exceed 20% of the total generation in the project electricity system.

Electricity exports

Electricity exports should not be subtracted from electricity generation data used for calculating and monitoring the baseline emission rate.
Guidance regarding OM/BM weighting in approved methodologies that use the combined margin approach [EB24 Anx7, p10-11]

♦ The following guidance provides a number of project-specific and context-specific factors for developing alternative OM and BM weights to the default. It does not, however, provide specific algorithms to translate these factors into quantified weights, nor does it address all factors that might conceivably affect these weights. In this case, PPs are suggested to propose specific quantification methods with justifications that are consistent with the guidance provided below.

♦ Given that it is unlikely that a project will impact either the OM or BM exclusively during the first crediting period, it is suggested that neither weight exceed 75% during the 1st crediting period.

- **Can increase OM**
  - **Project size (absolute or relative to the grid size of the system or the size of other system capacity additions)**
    - No change in weight on basis of absolute or relative size alone.
  - **Timing of project output**
    - Project activities with output during mainly off-peak periods (e.g. solar PV projects in evening peak regions, seasonal biomass generation during off-peak seasons) can have a greater OM weight.

- **Can increase BM**
  - **Timing of project output**
    - Projects with disproportionately high output during on-peak periods (e.g. air conditioning efficiency projects in some grids) can have greater BM weight.
  - **Predictability of project output**
    - Projects with output of an intermittent nature (e.g. wind or solar projects) which may have limited capacity value, depending on the nature of the (wind/solar) resource and the grid in question, and to the extent that a project's capacity value is lower than that of a typical grid resource can reduce the BM weight.
  - **Suppressed demand**
    - Under conditions of suppressed demand that are expected to persist through over half of the 1st crediting period across a significant number of hours per year, available power plants are likely to be operated fully regardless of the CDM project, and thus the OM weight can be reduced.
Attachment 8. Using blended biofuel

The following guidance serves to avoid double-counting of emission reductions that could occur in project activities if both biofuel production and biofuel use are eligible to generate CERs and where such double-counting could occur at different points in the production chain. [EB26 Anx12]

Type of biofuel project activities covered under the guidance

Methodological proposals for the CDM project activities that seek to claim CERs from the substitution of fossil fuels by biofuels may be proposed for project activities where:
☞ The consumers (end-users) of biofuels claim CERs from displacing fossil fuel consumption with biofuel.
☞ The producer of biofuels claim CERs, for biofuel production, provided:
⇒ the consumers, to whom the biofuel is sold, are included in the project boundary;
⇒ the emissions reduction from use of biofuel are estimated based on monitored consumption by the consumers included within the project activity.

Export of biofuels to Annex I countries

No biofuel production exported to Annex I countries is eligible to claim CERs under the CDM.

Monitoring

♦ The methodology shall provide a monitoring scheme/framework with elements (e.g. electronic loggers) that can be used to verify without doubt the actual amount of biofuel consumed by the consumer (end user) for displacement of fossil fuels.
♦ The monitored elements of the consumption by the end-user shall correspond to the production of the biofuel and be used to calculate and claim emission reductions.
♦ The methodology for project activities undertaken by consumers of biofuel shall provide an estimate of leakage, which is measurable and attributable to the CDM project activity.

Cultivation, harvesting and preparation of biofuel

♦ Emissions associated with the production of biomass used to produce the biofuel shall be accounted for when calculating emission reductions achieved by the blended biofuel project activity.
♦ However, in the case that it can be demonstrated that the project activity is using biomass originating from a registered A/R project activity (i.e. through contractual agreement for procurement of biomass), emissions related to the production of the biomass need not be accounted for.

The EB further clarified to the guidance that project activities claiming CERs from the production of biofuels only, while not taking into account consumers (end-users) of these biofuels, are not eligible as CDM project activities. [EB30 Rep, para14]
Definition of biomass [EB20 Anx8, para2]
When referring to biomass in relevant baseline and monitoring methodologies:

☞ Biomass means;
⇒ Non-fossilized and biodegradable organic material originating from plants, animals and micro-organisms.
⇒ Also products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes.
⇒ Also gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material.
☞ Biomass residues means biomass by-products, residues and waste streams from agriculture, forestry and related industries.

Definition of renewable biomass [EB23 Anx18]
♦ Biomass is “renewable” if one of the following 5 conditions applies:
☞ The biomass is originating from land areas that are forests where:
  (a) The land area remains a forest; and
  (b) Sustainable management practices are undertaken on these land areas to ensure, in particular, the level of carbon stocks; and
  (c) Any national or regional forestry and nature conservation regulations are complied with.
☞ The biomass is woody biomass and originates from croplands and/or grasslands where:
  (a) The land area remains cropland and/or grasslands or is reverted to forest; and
  (b) Sustainable management practices are undertaken on these land areas to ensure, in particular, the level of carbon stocks; and
  (c) Any national or regional forestry, agriculture and nature conservation regulations are complied with.
☞ The biomass is non-woody biomass and originates from croplands and/or grasslands where:
  (a) The land area remains cropland and/or grasslands or is reverted to forest; and
  (b) Sustainable management practices are undertaken on these land areas to ensure, in particular, the level of carbon stocks; and
  (c) Any national or regional forestry, agriculture and nature conservation regulations are complied with.
☞ The biomass is a biomass residue and the use of that biomass residue in the project activity does not involve a decrease of carbon pools, in particular dead wood, litter or soil organic carbon, on the land areas where the biomass residues are originating from.
  ⇒ For example, a CDM project involves the collection of dead wood from a forest, which would not be collected in the absence of the CDM, the extracted biomass cannot be regarded as renewable, since it would result in a decrease of carbon stocks.
☞ The biomass is the non-fossil fraction of an industrial or municipal waste.
♦ Otherwise, where none of these conditions applies, the biomass is considered as “nonrenewable”.
9-2. Leakage in biomass SSC project activities

<table>
<thead>
<tr>
<th>Biomass type</th>
<th>Activity / source</th>
<th>Shift of pre-project activities</th>
<th>Emissions from biomass generation / cultivation</th>
<th>Competing use of biomass</th>
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<tbody>
<tr>
<td>Biomass from forest</td>
<td>Existing forests</td>
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<tr>
<td></td>
<td>New forests</td>
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<tr>
<td>Biomass from croplands or grasslands (woody or non-woody)</td>
<td>In the absence of the project the land would be used as cropland / wetland</td>
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<td>In the absence of the project the land would be Abandoned</td>
<td>-</td>
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<tr>
<td>Biomass residues or wastes</td>
<td>Biomass residues or wastes are collected and Used</td>
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## Attachment 10. Approved methodologies

<table>
<thead>
<tr>
<th>Sectoral Scope</th>
<th>Approved Methodologies</th>
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<th>*2</th>
</tr>
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<tbody>
<tr>
<td>Energy industries (renewable - / non-renewable sources)</td>
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<td>ACM0004 ver.2 Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation</td>
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<td>ACM0006 ver.6 Consolidated methodology for grid-connected electricity generation from biomass residues</td>
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<td>ACM0007 ver.2 Baseline methodology for conversion from single cycle to combined cycle power generation</td>
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<td></td>
<td>ACM0009 ver.3 Consolidated baseline methodology for fuel switching from coal or petroleum fuels to natural gas</td>
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<tr>
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<td>ACM0011 Consolidated baseline methodology for fuel switching from coal and/or petroleum fuels to natural gas in existing power plants for electricity generation</td>
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<td>ACM0012 Consolidated baseline methodology for GHG emission reductions for waste gas or waste heat or waste pressure based energy system</td>
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<td></td>
<td>AM0007 Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants</td>
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<td>AM0010 Landfill gas capture and electricity generation projects where landfill gas capture is not mandated by law</td>
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<td>AM0014 ver.4 Natural gas-based package cogeneration</td>
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<td>AM0019 ver.2 Renewable energy project activities replacing part of the electricity production of one single fossil-fuel-fired power plant that stands alone or supplies electricity to a grid, excluding biomass projects</td>
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<td>AM0024 Methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants</td>
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<td>AM0025 ver.9 Avoided emissions from organic waste through alternative waste treatment processes</td>
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<td>AM0026 ver.2 Methodology for zero-emissions grid-connected electricity generation from renewable sources in Chile or in countries with merit order based dispatch grid</td>
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<td>AM0029 Baseline methodology for grid connected electricity generation plants using natural gas</td>
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<td>AM0035 SF₆ Emission Reductions in Electrical Grids</td>
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<td>AM0042 Grid-connected electricity generation using biomass from newly developed dedicated plantations</td>
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<td>AM0044 Energy efficiency improvement projects: boiler rehabilitation or replacement in industrial and district heating sectors</td>
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<td>AM0045 ver.1.1 Grid connection of isolated electricity systems</td>
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<td>AM0048 Cogeneration facilities supplying electricity and/or steam to multiple customers and displacing grid/off-grid steam and electricity generation with more carbon-intensive fuels</td>
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<td>AM0049 Methodology for gas based energy generation in an industrial facility</td>
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<td>AM0052 Increased electricity generation from existing hydropower stations through Decision Support System optimization</td>
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<td>AM0053 Biogenic methane injection to a natural gas distribution grid</td>
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<td>AM0054 Energy efficiency improvement of a boiler by introducing oil/water emulsion technology</td>
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<td>AM0055 Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities</td>
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<td>AM0056 Efficiency improvement by boiler replacement or rehabilitation and optional fuel switch in fossil fuel-fired steam boiler systems</td>
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*1: The types of GHG that typically employs the listed methodology to calculate emission reductions.
*2: Number of registered CDM projects which applies the listed methodology (including previous versions) as of August 6, 2007.
## Approved Methodologies

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<thead>
<tr>
<th>Sectoral Scope</th>
<th>Approved Methodologies</th>
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<td>Energy distribution</td>
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<td>AM0017 ver.2</td>
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<td>Baseline methodology for steam optimization systems</td>
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<td>AM0020</td>
<td>Baseline methodology for water pumping efficiency improvements</td>
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<td>AM0046</td>
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<td>ACM0005 ver.3</td>
<td>Consolidated methodology for increasing the blend in cement production</td>
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<td>ACM0009 ver.3</td>
<td>Consolidated methodology for industrial fuel switching from coal or petroleum fuels to natural gas</td>
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<td>ACM0012</td>
<td>Consolidated baseline methodology for GHG emission reductions for waste gas or waste heat or waste pressure based energy system</td>
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<td>Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants</td>
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<td>Natural gas-based package cogeneration</td>
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<td>Baseline methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants</td>
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<td>AM0033 ver.2</td>
<td>Use of non-carbonated calcium sources in the raw mix for cement processing</td>
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<td>Baseline and Monitoring Methodology for the recovery and utilization of waste gas in refinery facilities</td>
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<td>AM0057</td>
<td>Avoided emissions from biomass wastes through use as feed stock in pulp and paper production</td>
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<td>AM0021</td>
<td>Baseline Methodology for decomposition of N$_2$O from existing adipic acid production plants</td>
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<td>AM0027 ver.2.1</td>
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<td>AM0028 ver.4.1</td>
<td>Catalytic N$_2$O destruction in the tail gas of Nitric Acid or Caprolactam Production Plants</td>
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<td>AM0034 ver.2</td>
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<td>AM0050</td>
<td>Feed switch in integrated Ammonia-urea manufacturing industry</td>
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<td>AM0051</td>
<td>Secondary catalytic N$_2$O destruction in nitric acid plants</td>
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<td>AM0031</td>
<td>Methodology for Bus Rapid Transit Projects</td>
<td>CO$_2$</td>
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</table>

*1: The types of GHG that typically employs the listed methodology to calculate emission reductions.
*2: Number of registered CDM projects which applies the listed methodology (including previous versions) as of August 6, 2007.
<table>
<thead>
<tr>
<th>Sectoral Scope</th>
<th>Approved Methodologies</th>
<th>*1</th>
<th>*2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining/mineral production</td>
<td>ACM0008 ver.3 Consolidated methodology for coal bed methane and coal mine methane capture and use for power (electrical or motive) and heat and/or destruction by flaring</td>
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<td>Metal production</td>
<td>AM0030 PFC emission reductions from anode effect mitigation at primary aluminium smelting facilities</td>
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<td>Metal production</td>
<td>AM0038 Methodology for improved electrical energy efficiency of an existing submerged electric arc furnace used for the production of SiMn</td>
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<td>Metal production</td>
<td>ACM0008 ver.3 Consolidated methodology for coal bed methane and coal mine methane capture and use for power (electrical or motive) and heat and/or destruction by flaring</td>
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<td>Metal production</td>
<td>AM0009 ver.2.1 Recovery and utilization of gas from oil wells that would otherwise be flared</td>
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<td>Metal production</td>
<td>AM0023 ver.2 Leak reduction from natural gas pipeline compressor or gate stations</td>
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<td>Metal production</td>
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<td>Fugitive emissions from fuels (solid, oil and gas)</td>
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<td>Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride</td>
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<td>Waste handling and disposal</td>
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<td>AM0002 ver.3  Greenhouse gas emission reductions through landfill gas capture and flaring where the baseline is established by a public concession contract</td>
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<td>AM0003 ver.4  Simplified financial analysis for landfill gas capture projects</td>
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<td>AM0013 ver.4  Avoided methane emissions from organic waste-water treatment</td>
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<td>AM0057  Avoided emissions from biomass wastes through use as feed stock in pulp and paper production</td>
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<td>Afforestation and reforestation</td>
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<td>AR-AM0001 ver.2  Reforestation of degraded land</td>
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<td>AR-AM0002  Restoration of degraded lands through afforestation/reforestation</td>
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<td>AR-AM0005  Afforestation and reforestation project activities implemented for industrial and/or commercial uses</td>
<td>CO₂</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>AR-AM0006  Afforestation/Reforestation with Trees Supported by Shrubs on Degraded Land</td>
<td>CO₂</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>AR-AM0007  Afforestation and Reforestation of Land Currently Under Agricultural or Pastoral Use</td>
<td>CO₂</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>AR-AM0008  Afforestation or reforestation on degraded land for sustainable wood production</td>
<td>CO₂</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>AR-AMS0001  Revised simplified baseline and monitoring methodologies for selected small-scale afforestation and reforestation project activities under the clean development mechanism</td>
<td>CO₂</td>
<td>0</td>
</tr>
</tbody>
</table>

*1: The types of GHG that typically employs the listed methodology to calculate emission reductions.
*2: Number of registered CDM projects which applies the listed methodology (including previous versions) as of August 6, 2007.
### Type I - Renewable Energy Projects

| Methodology | Description | GhG
<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>I.A. ver12</td>
<td>Electricity generation by the user</td>
<td>CO₂ 4</td>
</tr>
<tr>
<td>I.B. ver10</td>
<td>Mechanical energy for the user</td>
<td>CO₂ 0</td>
</tr>
<tr>
<td>I.C. ver11</td>
<td>Thermal energy for the user</td>
<td>CO₂ 33</td>
</tr>
<tr>
<td>I.D. ver12</td>
<td>Renewable energy generation for a grid</td>
<td>CO₂ 234</td>
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</tbody>
</table>

### Type II - Energy Efficiency Improvement Projects

| Methodology | Description | GhG
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>II.A. ver9</td>
<td>Supply side energy efficiency improvements - transmission and distribution</td>
<td>CO₂ 0</td>
</tr>
<tr>
<td>II.B. ver9</td>
<td>Supply side energy efficiency improvements - generation</td>
<td>CO₂ 9</td>
</tr>
<tr>
<td>II.C. ver9</td>
<td>Demand-side energy efficiency programmes for specific technologies</td>
<td>CO₂ 2</td>
</tr>
<tr>
<td>II.D. ver10</td>
<td>Energy efficiency and fuel switching measures for industrial facilities</td>
<td>CO₂ 29</td>
</tr>
<tr>
<td>II.E. ver9</td>
<td>Energy efficiency and fuel switching measures for buildings</td>
<td>CO₂ 5</td>
</tr>
<tr>
<td>II.F. ver9</td>
<td>Energy efficiency and fuel switching measures for agricultural facilities and activities</td>
<td>CO₂ 0</td>
</tr>
</tbody>
</table>

### Type III - Other Project Activities

| Methodology | Description | GhG
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>III.A.</td>
<td>Agriculture is under development</td>
<td>-</td>
</tr>
<tr>
<td>III.B. ver11</td>
<td>Switching fossil fuels</td>
<td>CO₂ 9</td>
</tr>
<tr>
<td>III.C. ver11</td>
<td>Emission reductions by low-greenhouse gas emitting vehicles</td>
<td>CO₂ 0</td>
</tr>
<tr>
<td>III.D. ver13</td>
<td>Methane recovery</td>
<td>CH₄ 67</td>
</tr>
<tr>
<td>III.E. ver13</td>
<td>Avoidance of methane production from biomass decay through controlled combustion</td>
<td>CH₄ 20</td>
</tr>
<tr>
<td>III.F. ver5</td>
<td>Avoidance of methane production from biomass decay through composting</td>
<td>CH₄ 0</td>
</tr>
<tr>
<td>III.G. ver5</td>
<td>Landfill methane recovery</td>
<td>CH₄ 0</td>
</tr>
<tr>
<td>III.H. ver6</td>
<td>Methane recovery in wastewater treatment</td>
<td>CH₄ 7</td>
</tr>
<tr>
<td>III.I. ver6</td>
<td>Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems</td>
<td>CH₄ 0</td>
</tr>
<tr>
<td>III.J. ver3</td>
<td>Avoidance of fossil fuel combustion for carbon dioxide production to be used as raw material for industrial processes</td>
<td>CO₂ 0</td>
</tr>
<tr>
<td>III.K. ver2</td>
<td>Avoidance of methane release from charcoal production by shifting from pit method to mechanized charcoaling process</td>
<td>CH₄ 0</td>
</tr>
<tr>
<td>III.L. ver2</td>
<td>Avoidance of methane production from biomass decay through controlled pyrolysis</td>
<td>CH₄ 0</td>
</tr>
<tr>
<td>III.M. ver2</td>
<td>Reduction in consumption of electricity by recovering soda from paper manufacturing process</td>
<td>CO₂ 0</td>
</tr>
<tr>
<td>III.N. ver2</td>
<td>Avoidance of HFC emissions in rigid Poly Urethane Foam (PUF) manufacturing</td>
<td>HFC 0</td>
</tr>
</tbody>
</table>
Attachment 11. Global warming potential (GWP) and carbon emission factor (CEF)

Global warming potential (GWP) is a measure of the relative radiative effect of greenhouse gases compared to CO₂. GWP used by Parties should be those provided by the IPCC 2nd Assessment Report (“1995 IPCC GWP values”) based on the effects of the GHGs over a 100-year time horizon [CP/1997/Ad1, p31 para3]. The value of GWP is fixed for the 1st commitment period, but it is subject to change for the subsequent commitment periods depending on new scientific findings.

Carbon Emission Factor (CEF) is the estimated average carbon (or CO₂) emission rate for a given source, relative to units of activity. The EB agreed that the IPCC default values should be used only when country or project specific data are not available or difficult to obtain [EB25 Rep, para59]. The EB further clarified that the ’2006 IPCC Guidelines for National Greenhouse Gas Inventories’ was published on the IPCC website on 24 October 2006 after which this version shall be considered as the latest version. [EB28 Rep, para68]

### Global Warming Potential

<table>
<thead>
<tr>
<th>Species</th>
<th>Chemical formula</th>
<th>GWP</th>
<th>Species</th>
<th>Chemical formula</th>
<th>GWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂</td>
<td>CO₂</td>
<td>1</td>
<td>HFC-23</td>
<td>CHF₃</td>
<td>11,700</td>
</tr>
<tr>
<td>Methane *</td>
<td>CH₄</td>
<td>21</td>
<td>HFC-236fa</td>
<td>C₂H₆F₆</td>
<td>6,300</td>
</tr>
<tr>
<td>Nitrous oxide</td>
<td>N₂O</td>
<td>310</td>
<td>HFC-143a</td>
<td>C₂H₃F₃</td>
<td>3,800</td>
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<tr>
<td>Perfluoroethane</td>
<td>C₂F₆</td>
<td>9,200</td>
<td>HFC-134a</td>
<td>CHF₂CF₃</td>
<td>1,300</td>
</tr>
<tr>
<td>Perfluoropentane</td>
<td>C₅F₁₂</td>
<td>7,500</td>
<td>HFC-134</td>
<td>C₂H₅F₃</td>
<td>1,000</td>
</tr>
<tr>
<td>Perfluorohexane</td>
<td>C₆F₁₄</td>
<td>7,400</td>
<td>HFC-32</td>
<td>CH₂F₂</td>
<td>650</td>
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<tr>
<td>Sulphur hexafluoride</td>
<td>SF₆</td>
<td>23,900</td>
<td>HFC-41</td>
<td>CH₃F</td>
<td>150</td>
</tr>
</tbody>
</table>


### Carbon Emission Factor

<table>
<thead>
<tr>
<th>Fossil fuel</th>
<th>CO₂ emission factor (kg/TJ)</th>
<th>Net calorific value (TJ/Gg) Gg=1000t</th>
<th>CO₂ emission factor (t-CO₂/t (Fuel))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil</td>
<td>73,300</td>
<td>42.3</td>
<td>3.101</td>
</tr>
<tr>
<td>Motor Gasoline</td>
<td>69,300</td>
<td>44.3</td>
<td>3.070</td>
</tr>
<tr>
<td>Other Kerosene</td>
<td>71,900</td>
<td>43.8</td>
<td>3.149</td>
</tr>
<tr>
<td>Gas/Diesel Oil</td>
<td>74,100</td>
<td>43.0</td>
<td>3.186</td>
</tr>
<tr>
<td>Liquefied Petroleum Gases</td>
<td>63,100</td>
<td>47.3</td>
<td>2.985</td>
</tr>
<tr>
<td>Anthracite</td>
<td>98,300</td>
<td>26.7</td>
<td>2.625</td>
</tr>
<tr>
<td>Sub-Bituminous Coal</td>
<td>96,100</td>
<td>18.9</td>
<td>1.816</td>
</tr>
<tr>
<td>Lignite</td>
<td>101,000</td>
<td>11.9</td>
<td>1.202</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>56,100</td>
<td>48.0</td>
<td>2.693</td>
</tr>
</tbody>
</table>


[Default carbon oxidation factor is 1] [CO₂ emission factors t-CO₂/t (Fuel) are calculated and not appear in the IPCC guideline]
### Important changes from previous version (Ver. 2.0 / July 2007)

<table>
<thead>
<tr>
<th>Page</th>
<th>Chapter</th>
<th>Change</th>
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<tbody>
<tr>
<td>10</td>
<td>4-4. Panels and Working Groups</td>
<td>Modified number of members for MP and CDM-AP</td>
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<tr>
<td>15</td>
<td>5. Conditions for CDM projects</td>
<td>Added an explanation for the document regarding ODA eligibility</td>
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<tr>
<td>17</td>
<td>6. Making PDD</td>
<td>Inserted new information on CDM programme of activity</td>
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<tr>
<td>21</td>
<td>7-4. Procedures for the submission of a proposed new methodology (NM)</td>
<td>Modified step (5)</td>
</tr>
<tr>
<td>24</td>
<td>7-5. Procedures for the revision of an AM</td>
<td>Modified step (8)</td>
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<tr>
<td>27</td>
<td>8-3. Crediting period</td>
<td>Modified an explanation in lower left regarding starting date of a CDM project activity</td>
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<tr>
<td>41</td>
<td>16. Renewal of crediting period</td>
<td>Modified an explanation in middle left reading a new letter of approval</td>
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<tr>
<td>47</td>
<td>18. CDM Programme of activities</td>
<td>Moved from Attachment and added an explanation of registration fee</td>
</tr>
<tr>
<td>63-66</td>
<td>Attachment 3. CDM Programme of activities related document form</td>
<td>Newly added</td>
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<tr>
<td>71</td>
<td>Attachment 5. Methodological tools</td>
<td>Added three new tools</td>
</tr>
<tr>
<td>82-86</td>
<td>Attachment 10. Approved methodologies</td>
<td>Updated overall</td>
</tr>
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