Ministry of the Environment

IGES
Institute for Global Environmental Strategies

CDM in CHARTS

Ver.1.1
May 2007

Updated up to the results of the EB31

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Edited by Yuji MIZUNO

Institute for Global Environmental Strategies (IGES)

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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. Maki KOZAKAI, Ms. Hyun Kyung YIM and Mr. Eric ZUSMAN. Cover page designed by Ms. Megumi YAJIMA, IGES

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Glos ver1, p1	**Glos**sary of CDM terms **Ver**sion 0**1**, **p**age **1** (Ver1 was published on 18 December 2006)
Anx stands for **An**ne**x**, **Apx** for **Ap**pendi**x**, **Att** for **At**tachmen**t**, and **Ann** for **An**notatio**n**.	
CDM M&P means **CDM M**odalities **and P**rocedures (Annex to Decision 17/CP.7) (FCCC/CP/2001/13/Add.2, p26-41)	
CDM A/R M&P means **M**odalities and **P**rocedures for **A**fforestation and **R**eforestation project activities under the **CDM** (Annex to Decision 19/CP.9) (FCCC/CP/2003/6/Add.2, p16-27)	

Glossary

AAU	Assigned Amount Unit
ACM	Approved Consolidated Methodology
AE	Applicant Entity
AM	Approved Methodology
A/R CDM	Afforestation and Reforestation Project Activities under the Clean Development Mechanism
AR	Afforestaion and Reforestation
CCS	Carbon dioxide Capture and Storage
CDM	Clean Development Mechanism
CDM-AP	CDM Accreditation Panel
CER	Certified Emission Reduction
COP	Conference of the Parties (to the UNFCCC)
COP/MOP	the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CPR	Commitment Period Reserve
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	CDM Executive Board
EIT	Economies in Transition
ER	Emission Reduction
ERT	Expert Review Team
ERU	Emission Reduction Unit
GHG	Greenhouse Gas
GWP	Global Warming Potential
HFCs	Hydrofluorocarbons
IET	International emissions trading under the Kyoto Protocol
IPCC	Intergovernmental Panel on Climate Change
ITL	International Transaction Log
JI	Joint Implementation

KP	Kyoto Protocol
LULUCF	Land Use, Land-Use Change and Forestry
MP	Methodologies Panel
NM	New Methodology
OE	Operational Entity
Party	Country or regional integration organization which has ratified the KP, unless otherwise specified
PDD	Project Design Document
PFCs	Perfluorocarbons
PoA	Programme of Activities
PP	Project Participant
RMU	Removal Unit
SAR	(the IPCC) 2nd Assessment Report
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SF_6	Sulfur Hexafluoride
SOP	Share of Proceeds
SSC	Small Scale CDM
SSC-WG	Working group for small-scale CDM project activities
UNFCCC	United Nations Framework Convention on Climate Change

Changes from previous version (Ver. 1.0 / March 2007)

Page	*Chapter*	*Change*
14	4-7. Modalities of communication	Updated ” Procedures for public communication with the EB”
22	7-5. Procedures for the revision of an approved methodology (AM)	Added “BOX: In case the revision results in the withdrawal of existing approved methodologies”
34	12. Revising monitoring plan	Updated introductory explanation
77-81	Attachment 10. Approved methodologies	Updated overall
82	Attachment 11. Methodological tools	Added two draft tools regarding A/R CDM project activities

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 (CO_2), methane (CH_4), nitrous oxide (N_2O), HFCs, PFCs, and SF_6. [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 SF_6). [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/2005/8/Ad2, p7 para29][CMP/2005/8/Ad1, p13 para33][CMP/2005/8/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 CO_2 emissions for 1990 of the Annex I Parties, have deposited their instruments of ratification, acceptance, approval or accession. [KP Art.25 para1]

☞ As of 14 February 2007, 169 countries and one regional economic integration organization (the EEC) have deposited instruments of ratifications, accessions, approvals or acceptances.

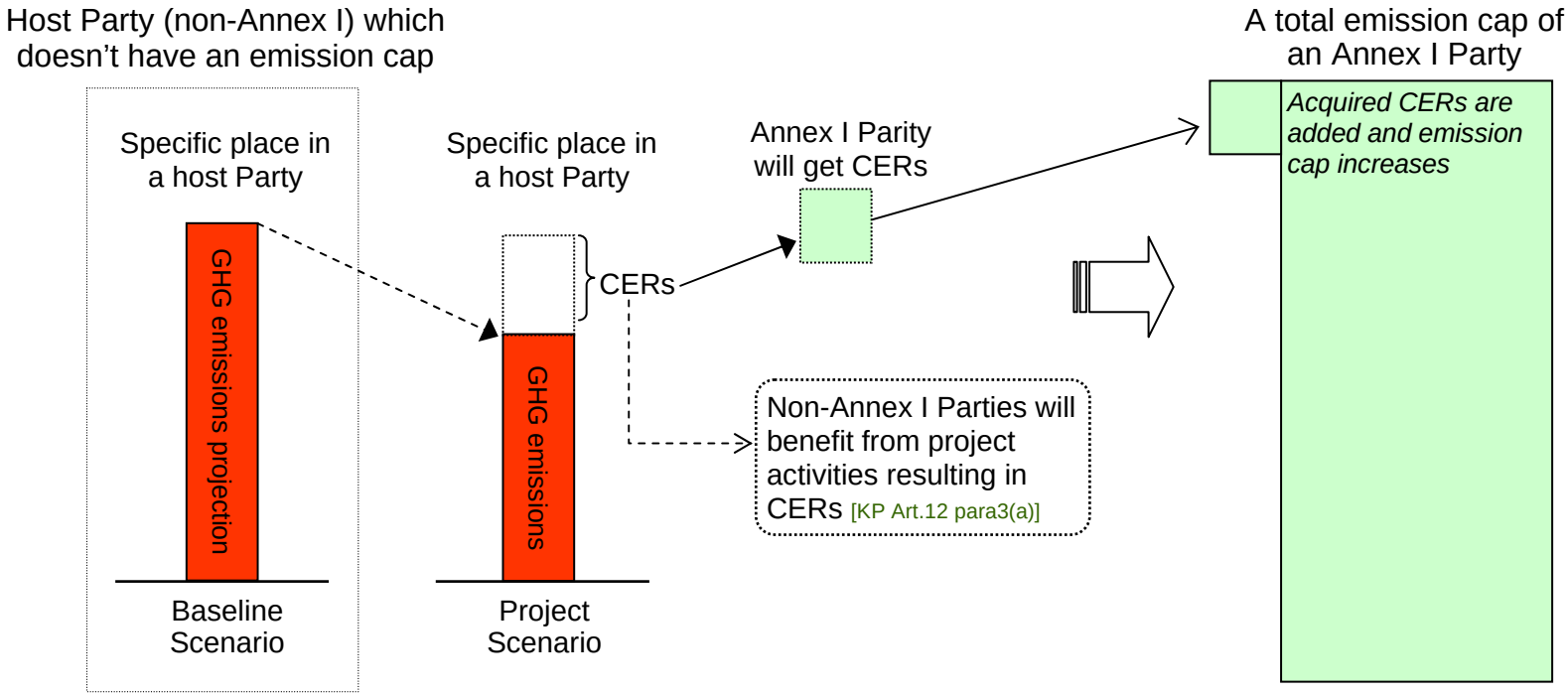
☞ 61.6% of the total CO_2 emissions for 1990 of the Annex I Parties have ratified the Protocol.

⇒ The Protocol entered into force on 16 February 2005.

2. The Kyoto Mechanisms

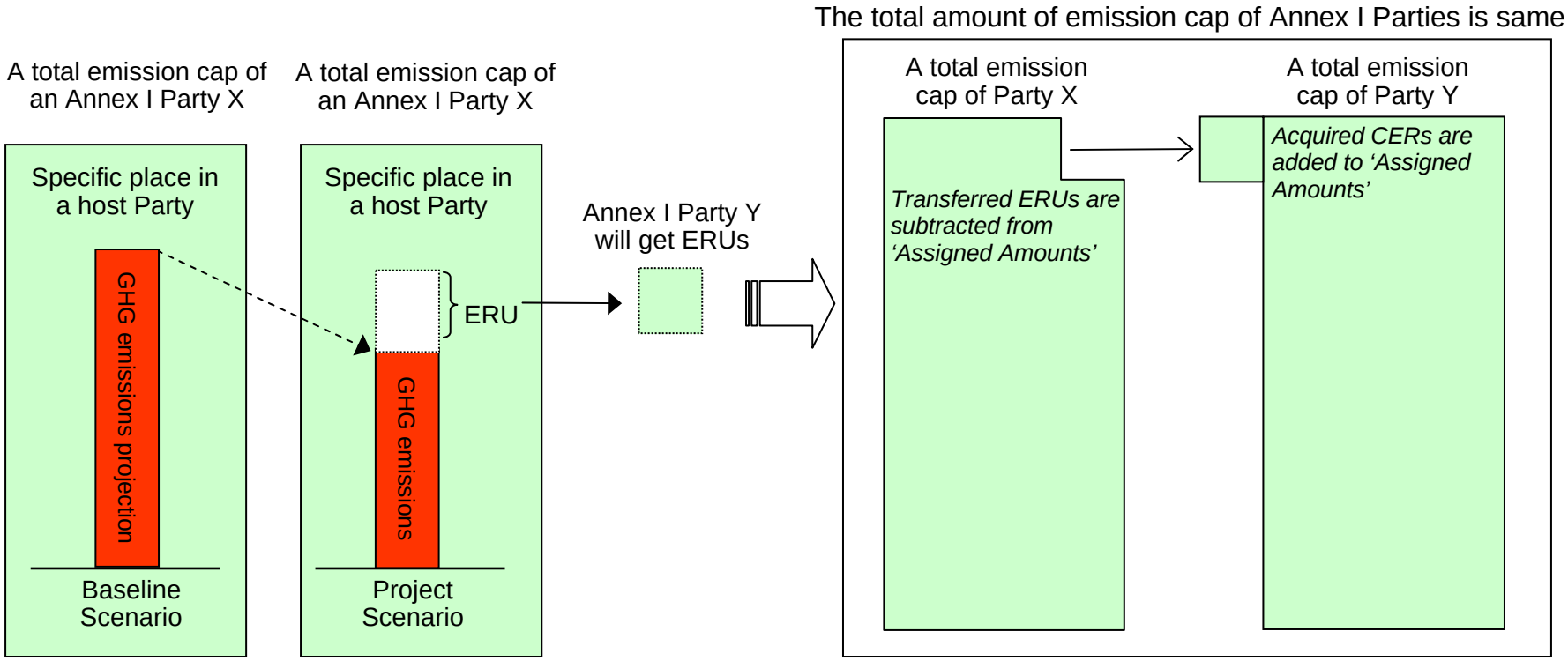
2-1. The Clean Development Mechanism (CDM)

- ♦ 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)

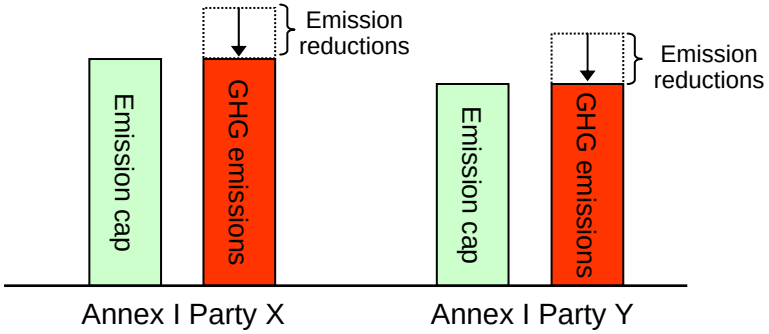
- ♦ Annex I Parties which have ceilings for GHG emissions (emission caps), assist other Annex I Parties to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on amount of emission reductions (or removals by sinks) achieved by the project activities.
  - ☞ 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 after 2008. [CMP/2005/8/Ad2, p2 para5]



2-3. International Emissions Trading (IET)

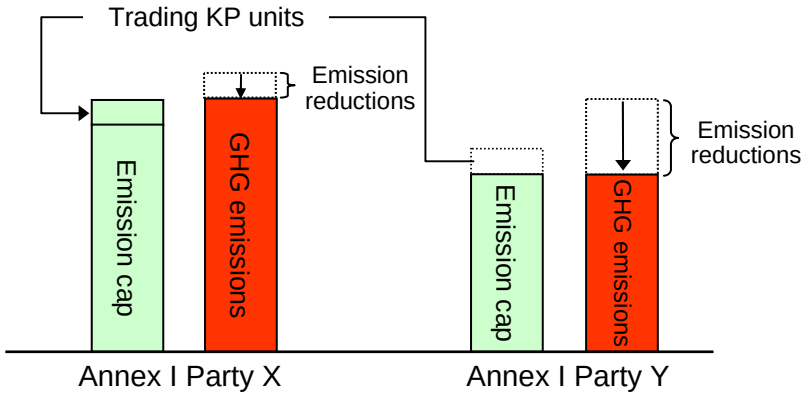
- ♦ International Emissions Trading is to trade Kyoto Protocol units (KP units) including part of assigned amounts, CERs, ERUs and etc, between Annex I Parties.
  - ☞ The total amount of emission cap of Annex I Parties will not change.
  - ☞ Only Annex B Parties of the Kyoto Protocol can participate International Emissions Trading.
  - ☞ Minimum trading unit is 1t-CO_2 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



	Party X	Party Y	Total
Before ET: Emission cap	10	8	18
Trading a KP unit	-	-	-
After ET: Emission cap	10	8	18
GHG emissions	12	10	22
Necessary reduction	2	2	4
Unit cot of reduction	$200	$100	-
Total cost of reduction	$400	$200	$600
Trading cost	-	-	-
Total compliance cost	$400	$200	**$600**

With International Emissions Trading



	Party X	Party Y	Total
Before ET: Emission cap	10	8	18
Trading a KP units	1	-1	0
After ET: Emission cap	11	7	18
GHG emissions	12	10	22
Necessary reduction	1	3	4
Unit cot of reduction	$200	$100	-
Total cost of reduction	$200	$300	$500
Trading cost	150	-150	0
Total compliance cost	$350	$150	**$500**

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 RMU 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 (lCER)**
  - ⇒ tCER and lCER are issued from afforestation and reforestation (A/R) CDM project activities.[CMP/2005/8/Ad1, p62 para1(g)-(h)]

BOX: Compliance assessment

GHG emission cap of an Annex I Party at the end of the 1st commitment period is as follows.

Emission cap of Annex I Party	=	AAUs	+	RMUs	+	Acquired credits from JI and the CDM (ERUs+CERs+tCERs+lCERs)	±	Acquired 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.

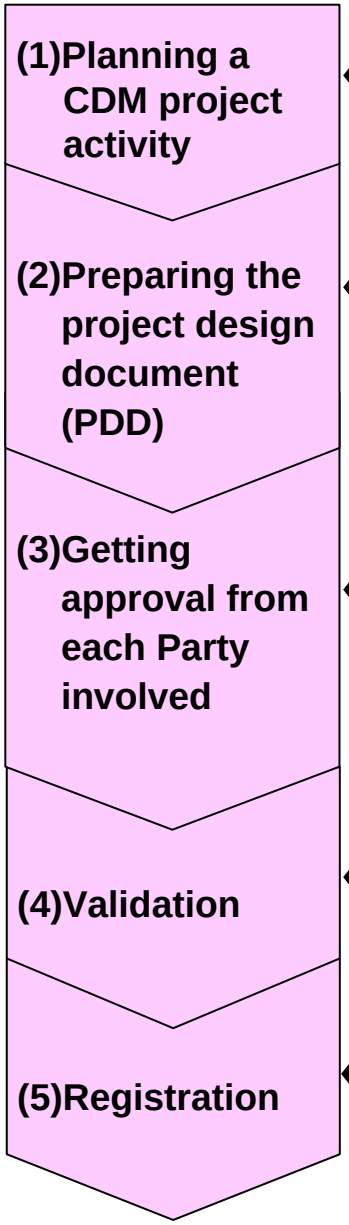
Consequence of non compliance

♦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



♦ 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.

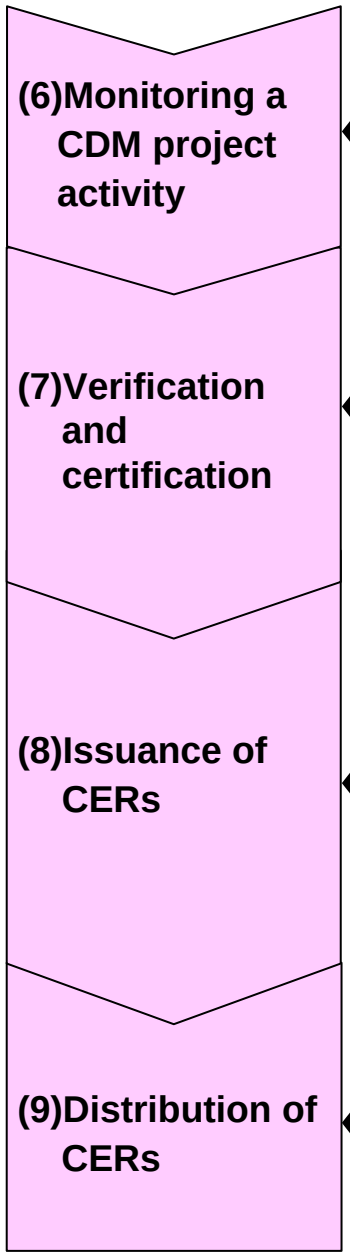
♦ PPs prepare the project design document (CDM-PDD) for a CDM project activity. (chap.6)
- ☞ The CDM-PDD presents information on the essential technical and organizational aspects of the project activity and is a key input into the validation, registration, and verification of the project.
- ☞ The CDM-PDD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

♦ 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 before a request for registration.

♦ 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)

♦ 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.



♦ 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. [CMP/2005/8/Ad1, p18 para56][CMP/2005/8/Ad1, p18 para58]

☞ Monitoring plan can be revised. (chap.12)

♦ Verification is the periodic independent review and *ex post* determination of the monitored GHG emission reductions. [CMP/2005/8/Ad1, p18 para61]

☞ Verification is carried out by a designated operational entity (DOE).

☞ There is a formal procedure for verification. (chap.13)

♦ Certification is the written assurance by a DOE that a project activity achieved the reductions in GHG emissions as verified. [CMP/2005/8/Ad1, p18 para61]

☞ Certification is also done by a DOE.

♦ The EB will issue certified emission reductions (CERs) equal to the verified amount of GHG emission reductions. [CMP/2005/8/Ad1, p19 para64]

☞ 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. [CMP/2005/8/Ad1, p98 para37]

♦ 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). [CP/2001/13/Ad2, p23 para15(a)]

♦ 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. [Glos ver1, p22]

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, p10 para18]

♦ 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.
- ☞ 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 15 members. [EB30 Anx3, para5]

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, para1]
- ☞ 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, para3]

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, para2-3]
- ☞ 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 initially of 7 members. [EB23 Anx14, para5]

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, para5]
- ☞ The RIT is composed of not less than 20 members. [EB29 Anx14, para7]

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, para4-5]
- ☞ 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 6 members. [EB23 Anx1, para13]

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)]

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.

[EB29 Anx1, p2 footnote]

Procedure for accrediting OEs [EB29 Anx1, 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. [EB29 Anx1, para69]
- ☞ The EB is authorized to conduct “spot-check” activities (i.e.unscheduled surveillance) of DOEs at any time. [EB29 Anx1, para88]

Phasing of accreditation

[EB29 Anx1, 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 CO_2 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 secretariat shall acknowledge receipt of unsolicited communications addressed to the EB and make them available to the EB through the EB's extranet. In consultation with the Chair of the EB, the Secretary of the EB shall initiate action including consultation with EB, as needed, and answer unsolicited communications on behalf of the Chair, as appropriate.
- 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 send 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]

♦ 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

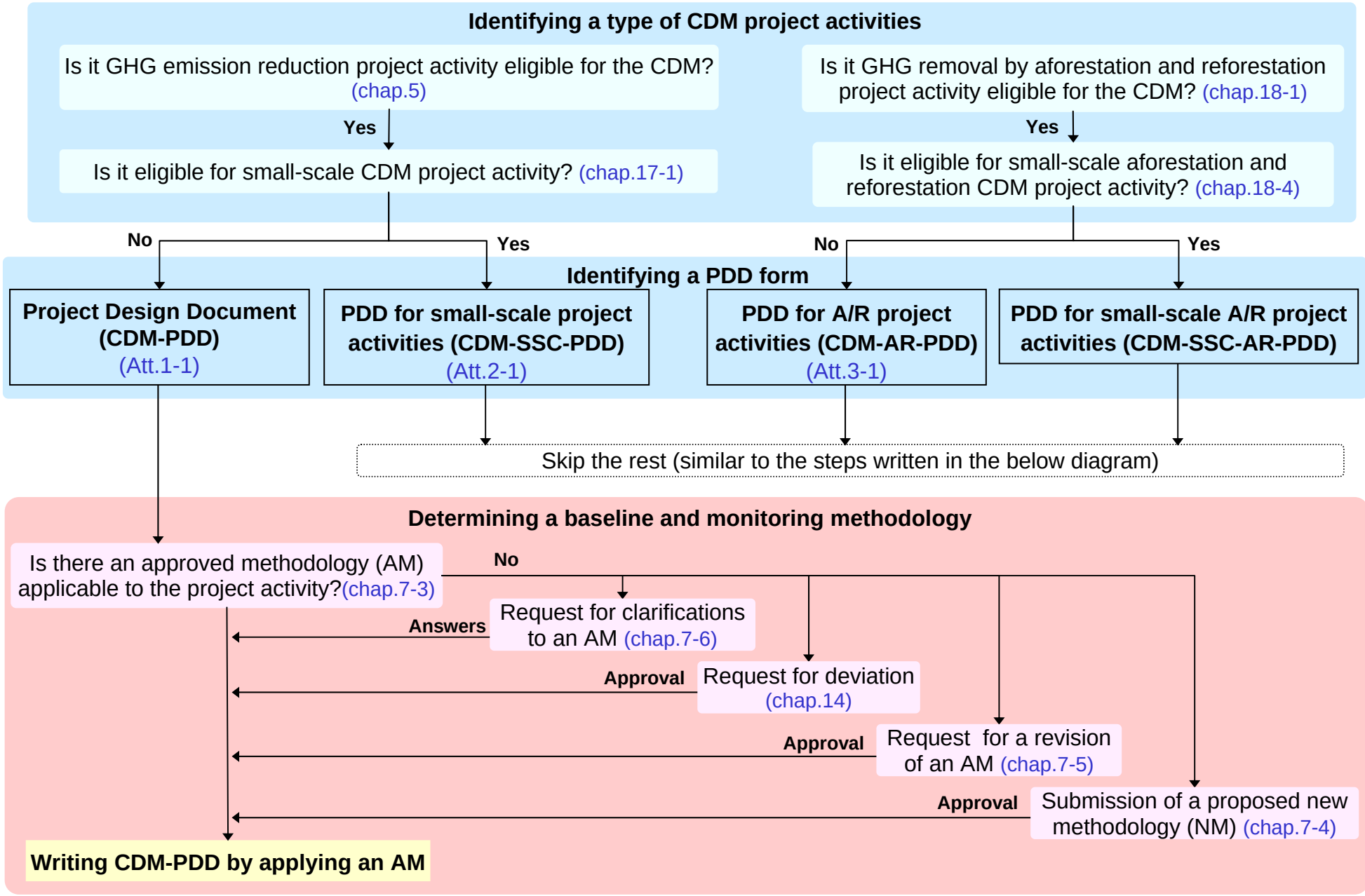
♦ But that project activities under a programme of activities can be registered as a single CDM project activity provided that approved baseline and monitoring methodologies are used that, inter alia, define the appropriate boundary, avoid double counting and account for leakage, ensuring that the emission reductions are real, measurable and verifiable, and additional to any that would occur in the absence of the project activity. (see Att.9)

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 27h 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 theCOP/MOP4. [CMP/2006/10/Ad1, p7 para24]

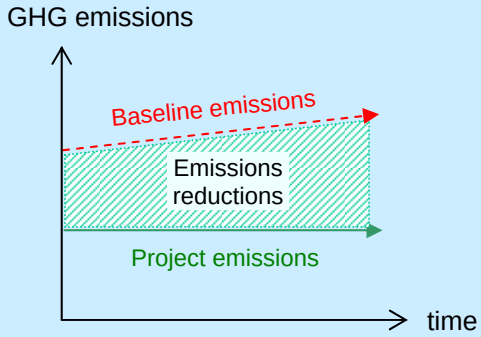
6. Making PDD


Identifying a type of CDM project activities
Is it GHG emission reduction project activity eligible for the CDM? (chap.5)
Yes
Is it eligible for small-scale CDM project activity? (chap.17-1)
Is it GHG removal by aforestation and reforestation project activity eligible for the CDM? (chap.18-1)
Yes
Is it eligible for small-scale aforestation and reforestation CDM project activity? (chap.18-4)
No
Yes
No
Yes
Identifying a PDD form
Project Design Document (CDM-PDD) (Att.1-1)
PDD for small-scale project activities (CDM-SSC-PDD) (Att.2-1)
PDD for A/R project activities (CDM-AR-PDD) (Att.3-1)
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
Answers
Request for clarifications to an AM (chap.7-6)
Approval
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 Anx8 para1]

BOX: Wording

PPs shall refrain from providing glossaries or using key terminology not used in the COP documents and the CDM glossary (environmental/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).

7-3. 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. [EB20 Anx2, 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/Ad1, 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>

☞ Proponents of methodologies have indicated some apparent overlap between approaches (a), (b),and (c) of para 48 of the CDM M&P.

☞ Since para 48 stipulates that only one approach should be chosen, developers are advised to select the one that most closely reflects the process used for calculating baseline emissions or baseline emission rates. [EB10 Anx1, para4]

7-4. Procedures for the submission of a proposed new methodology (NM)

[EB25 Anx17][Version 11 / 28 July 2006]

(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.
- ☞ The amount of this fee will be reviewed and, if necessary, revised in the 3rd quarter 2006.
- ☞ Not applicable to methodologies for small-scale and afforestation and reforestation project activities.

(4) The secretariat checks that the "CDM: Proposed new methodology form (F-CDM-NM)" has been duly filled by the DOE, documentation provided by the DOE is complete and the proof of payment of the stipulated submission fee has been received.

(5) The secretariat forwards the documentation to 1 member of the MP. This member 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 "CDM: Proposed new methodology assessment form (F-CDM-NMas)".

- ☞ If the grade is 2, the documentation is to be sent back to the PPs who mayresubmit 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 member shall receive a half-day fee as remuneration.

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 for a period of **15 working days**.

Public inputs shall be made using the "public comment form (F-CDM-NMpu)"

(7) 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.

(8) Upon receipt of a proposed NM, 2 members of the MP are selected on a rotational basis in alphabetical order. The 2 members prepare draft recommendations by the MP to the EB.

The 2 panel members shall be paid a fee for 1 working day for the preparation of the draft recommendations.

(9) The Chair and the Vice-Chair of the MP, with the assistance of the 2 designated panel members and the secretariat, 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 lead is to be paid 3 days fee and the second reviewer a 2 days fee for the 1st 100 pages of the proposed NM and for each additional 30 pages, or part thereof, a 1 day fee.

(10) 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-NMex_3d" and second expert desk review form "F-CDM-NMex_2d".

(11) The MP may request, through the secretariat, and via the DOE, the PPs additional technical information within a deadline stipulated by the Chair of MP.

Any additional technical information provided by PPs to the MP shall be made available to the EB and to the public.

(12) The MP prepares its preliminary recommendation regarding the approval of the proposed NM to the EB using the forms "CDM: Proposed NM - Panel recommendation to the EB (F-CDM-NMmp)" and "CDM: Proposed NM - Panel recommendation summary to the EB (F-CDM-NMSUMmp)".

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

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

(14) Within **4 weeks** after the receipt of the preliminary recommendation of the MP, the PPs may submit, via the DOE, clarifications to the MP, through the secretariat, on technical issues. Technical clarifications provided by the PPs shall include revisions in the CDM-NMB and CDM-NMM in highlighted form.

(15 a) If PPs do not provide any clarification within the 4 week period, or if the preliminary recommendation by the MP is in favour of approving (so called A case) or not approving (so called C case) the proposed NM, it is considered as a final recommendation

(15 b) 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 MP makes a recommendation to the EB, if possible **at its next meeting**.
- ☞ A proposed NM shall be available to the MP at least **10 weeks prior to its next meeting**.
- ☞ In case more than 10 proposed NMs are submitted by the deadline, the Chair of the MP ascertains how many proposals are analyzed at the next MP meeting and decide to postpone the analysis of some submissions.
- ☞ Submissions are treated on a “First come first served” basis.
- ☞ The EB may decide to change a deadline for submissions of proposed NMs taking into account the workload of the MP.

(16) The final recommendation is forwarded to the EB and made publicly available.

(17) The EB considers a proposed NM **at the next meeting** following the receipt of the final recommendation regarding the approval 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.

If the EB considers the case to be re-submitted (so called “B” case), PPs have the opportunity to re-submit the proposal taking into consideration:

- ☞ Required changes being made by the PPs, taking into account issues raised by the EB, recommendations made by the MP, and re-submission of a duly revised proposal. The secretariat shall make the revised proposal publicly available upon receipt;
- ☞ Reconsideration of the revised proposal directly by the MP, without further review by desk reviewers; and
- ☞ A recommendation by the MP being made to the EB.

- ☞ A proposed methodology may be resubmitted to the EB with required changes (i.e. rated as “B” by the EB) **only once**.
- ☞ If a proposal that may be resubmitted with required changes (i.e. rated as “B”) is not resubmitted within the timeframe of **5 months** will be considered as withdrawn.

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

Request for revisions to AM [EB30 Anx1, para5-9]

- ♦ 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.

BOX: In case the revision results in the withdrawal of existing approved methodologies

☞ Tthe withdrawal shall not affect (a) registered CDM project activities using the withdrawn methodologies during their crediting period; and (b) project activities that have been published for public comments for validation using the previously approved methodology or tool, so long as the project activity is submitted for registration **within 8 months** of the date when the revision became effective. [EB31 Anx13, para1p]

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

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]

7-5. Procedures for the revision of an AM

[EB31 Anx13]

(1)If PPs intend to propose a revision to an approved baseline or monitoring methodology (AM), they shall submit to a DOE the form for submission of requests for revisions of AMs to the MP "F-CDMAM-Rev" along with a draft revised version of the AM highlighting proposed changes together with a draft PDD with complete sections A to C, including relevant annexes.

↓

(2)In the event that the COP/MOP requests the revision of an AM, no CDM project activity may use this methodology. The PPs shall revise the methodology, as appropriate, taking into consideration any guidance received from the EB.

↓

(3)Having checked that the above requirements are met and documentation is complete, the DOE transmits the documentation to the secretariat.

↓

(4)The secretariat forwards the documentation to the EB and the MP after having checked that (a) the form has been duly filled by the DOE, and (b) the documentation provided by the DOE is complete. Information on a request for revision of an AM shall be made available in the UNFCCC CDM web site.

↓

The date of receipt of a proposed revision to an AM by the EB

(5)The MP considers the proposed revision at **its next meeting**, if feasible and if received by the secretariat at least 6 weeks prior to the meeting.

↓

(6)The MP recommends to the EB whether the request should be accepted or not by the EB. Should the recommendation be to accept, the MP will ensure that there is a minimum of **6 months** between revisions, where possible. The Chair of MP may recommend an earlier revision if it is deemed of importance

(1)If the EB decides that a revision of an AM shall be considered, it requests the MP to further analyze the case and prepare a draft revised version of the methodology to the EB to be received no later than for consideration at the **2nd meeting** following the request by the EB.

↓

(2)Depending on the proposed revision of a methodology, the EB may decide to request the secretariat to invite public inputs on the proposed revision for a period of **15 working days**.

↓

(3)Up to 2 member(s) of the MP, under the guidance of the Chair and Vice-Chair of the MP, be selected for preparing draft recommendations for the MP.

The selected Panel member(s) shall each be paid a fee of a maximum of 2 working days.

(4)The MP recommends, based on justification, a revision to an AM or the continued validity of the AM, possibly with minor revisions and/or minor corrections. The MP may also recommend the revision of an AM based on the experience of the examination of submissions of NMs, and when doing so ensure there is a minimum of **6 months** between revisions, where possible. Information on a proposal for revision of an AM shall be made available in the UNFCCC CDM web site.

↓

(5) The EB shall consider the recommendations for revision to AMs by the MP **at its next meeting**.

↓

(6)If the EB approves the revision of an AM, this methodology shall replace the previous AM.

BOX: Revision of an AM

- ☞ 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. [EB31 Anx13, para18]
- ☞ 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.

- ☞ 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.

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

[EB24 Anx15]

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.

(1) If DOEs wish to submit queries regarding the applicability of approved methodologies (AMs), 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 1 member to prepare a draft recommendation and a draft answer 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 **2 weeks before the next MP meeting**.

The Chair shall decide on a case by case basis whether a daily fee or a half day fee shall be paid for the preparation of draft recommendations and answers.

↓

(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.

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. [EB12 Anx3, para1(b)]

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, 2 issues need to be addressed:

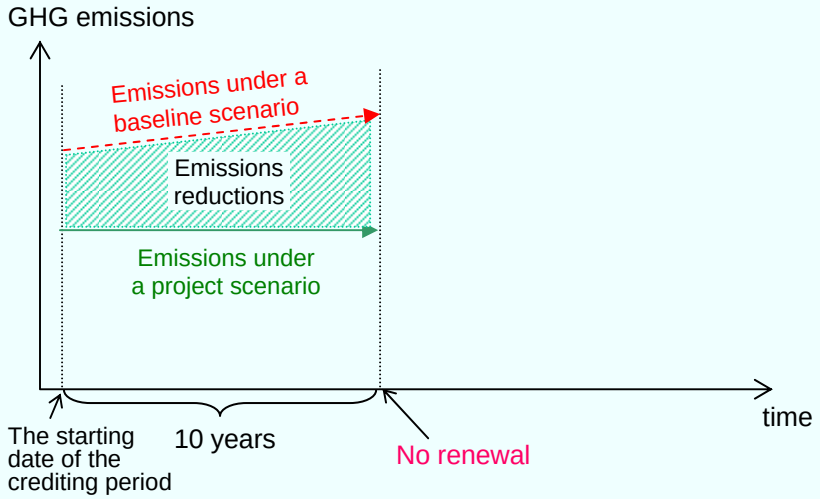
- ☞ assessing the continued validity of the baseline,
- ☞ updating the baseline.

[EB20 Anx7, para1] (chap.16)

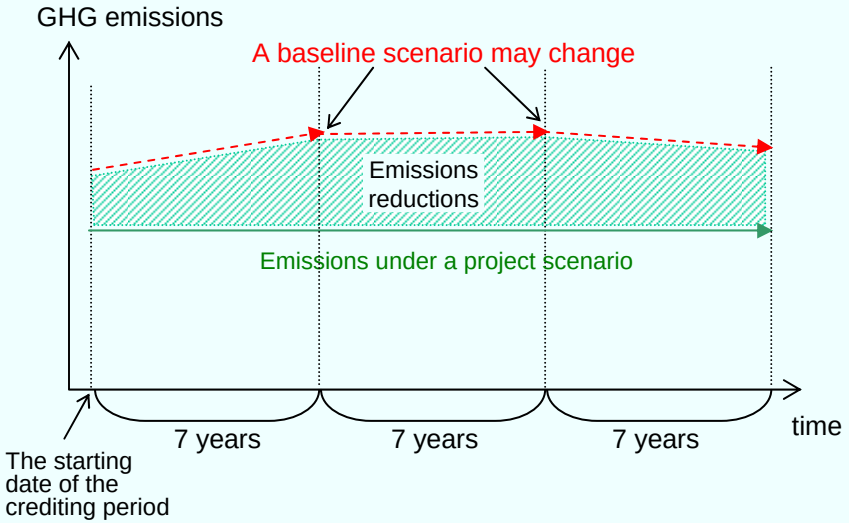
Indicating the starting date of the crediting period [EB24 Anx31, para4-5]

- ♦ 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.

A maximum of 10 years with no option of renewal



A maximum of 7 years which may be renewed at most 2 times



Retroactivity of a crediting period

♦ The EB agreed the deadline for the submission for registration of the CDM project activities wishing to claim retro-active credits, to 31 March 2007 and that project activities that started in the period between 1 January 2000 and 18 November 2004 that have either submitted a new methodology by 11 January 2006 or have requested validation by a designated operational entity by 31 December 2005 can request retroactive credits if:

☞ The request for registration of the project activity is submitted by the DOE through the electronic interface by 31 March 2007, midnight GMT;

☞ Any required registration fee is received by the secretariat before 30 April 2007; and

☞ The request is complete and published on the UNFCCC CDM website, by 15 May 2007. [EB28 Rep, para78]

♦ 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]

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]

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]

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.”

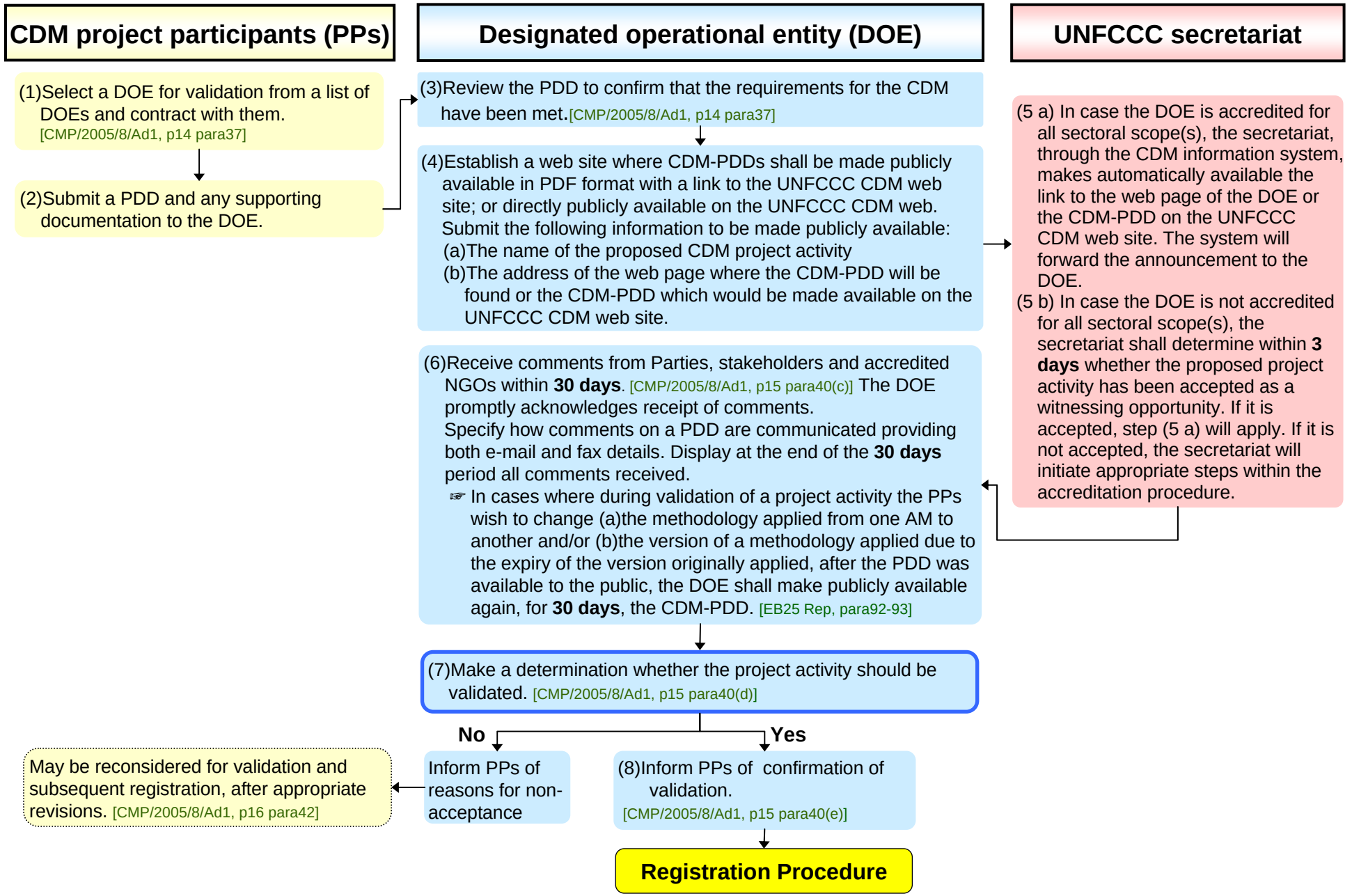
BOX: Contents of actual approval letters

- ♦ 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

<http://cdm.unfccc.int/Reference/Procedures/public_availPDD_ver04.pdf>[Version 4 / June 2005]

10-1. Procedures for 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.
- ♦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

[EB14 Anx7] [CMP/2005/8/Ad1, p54]

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.

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

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. [CMP/2005/8/Ad1, p15 para41]

No

(8)Registration as CDM project activity.

Can be registered

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.

Rejection

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

(9)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.

11-2. Procedures for review of registration

[EB29 Anx15]

(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 made by notifying 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 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.

(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-CO_2 and **USD 0.20/CER** issued for any amount in excess of 15,000 t-CO_2, 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-CO_2.

Example of registration fee

Expected average annual emission reduction	Registration fee
10,000 t	-
15,000 t	$ 1,500
30,000 t	$ 4,500
100,000 t	$ 18,500
1,000,000 t	$ 198,500
1,757,500 t	$ 350,000
3,000,000 t	$ 350,000

- 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]

☞The registration fee shall be deducted from the SOP-Admin.
⇒ Sop-Admins is a fee that PPs have to pay at issuance of CERs. (chap.15)
☞In effect, the registration fee is an advance payment of the SOP-Admin for the emission reductions achieved during the first year.
☞If an activity is not registered, any registration fee above **USD 30,000** shall be reimbursed.

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

[Procedures for making the monitoring report available to the public in accordance with paragraph 62 of the modalities and procedures for the CDM version01 / 7 April 2005][Procedures relating to verification report and certification report/request for issuance of CERs version 01.1 / 20 December 2006] <http://cdm.unfccc.int/Reference/Procedures>

CDM project participants (PPs)	Designated operational entity (DOE)	UNFCCC secretariat

(1)CDM project participants 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.

(2)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]

(3)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.

(4)Implement verification and provide a verification report. [CMP/2005/8/Ad, p18 para62(a)-(h)]
(5)Based on its verification report, certify in writing the verified amount of GHG emission reductions. [CMP/2005/8/Ad1, p19 para63]

(6)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.

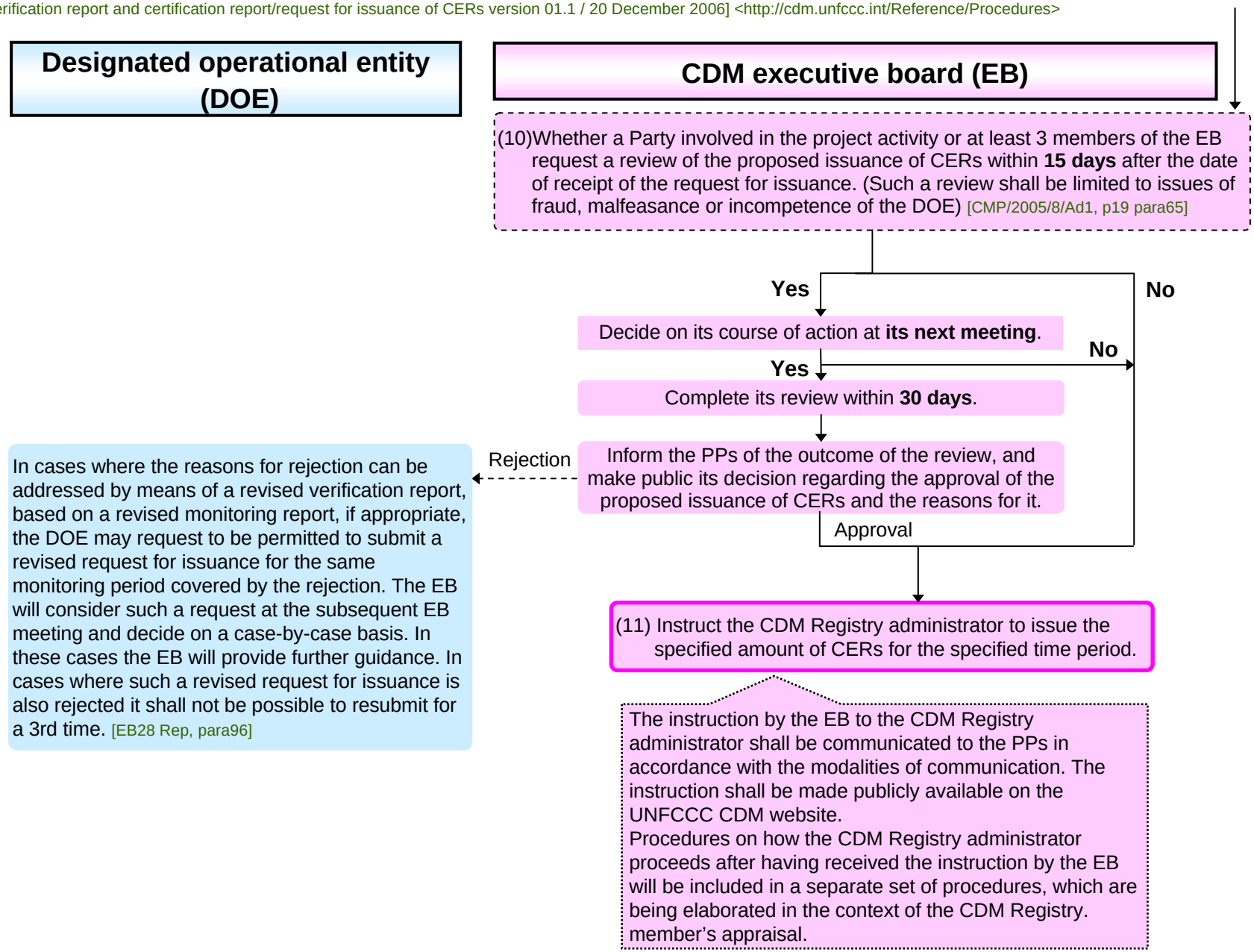
(7)Expeditiously determine whether the submission by the DOE is complete.
⇒ The date of receipt of a request for issuance is the date when the secretariat has determined that the request is complete.

(8)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.

(9)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]

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

[Procedures relating to verification report and certification report/request for issuance of CERs version 01.1 / 20 December 2006] <http://cdm.unfccc.int/Reference/Procedures>



13-2. Procedures for review of issuance

[EB29 Anx16]

(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 action 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 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 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.

(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 listserv.

(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 paragraph 4, (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.

(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**.
☞ If more information is required, the secretariat will inform the DOE which shall provide such information as soon as possible. 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.

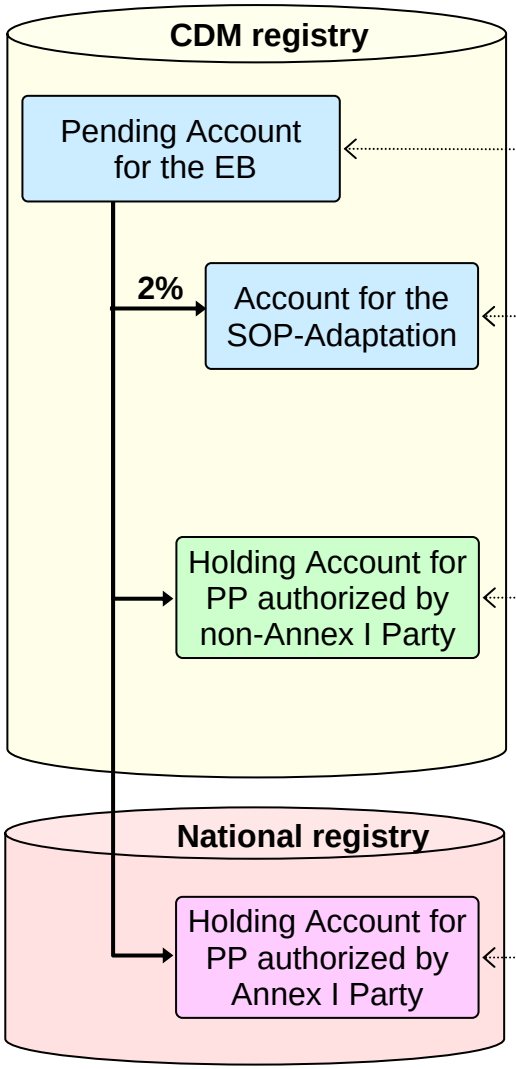
→ Once a decision has been made by the EB, the secretariat shall inform the DOE about the decision. If general clarifications shall be shared with all DOEs and PPs, the secretariat makes the guidance publicly available.

(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. The selected member(s) shall each be paid a fee of a maximum of **1 working days** for the preparation of the draft recommendation.

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-CO_2 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-CO_2 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.

☞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]

BOX: Temporary accounts for PPs from Annex I Parties (chap.19-1)

The CDM registry is to include temporary accounts for Annex I Parties, and PPs from such Parties, until national registries for such Parties (and international transaction log) and entities are operational, for the purpose of receiving CERs, forwarded to them from the pending account and of transferring such units to accounts in national registries. [CP/2004/2/, p15 para57]

BOX: Transferring CERs from the CDM registry

The CDM registry is to enable non-Annex I Parties, and entities from non-Annex I Parties, to transfer CERs from their holding accounts in the CDM registry to accounts in national registries. [CP/2004/2/, p15 para58]

16. Renewal of crediting period

[EB28 Anx40]

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, through a dedicated web interface, 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 nine to 6 months prior the date of expiration of the current 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.

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 FCDM-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 those contained in CMP/2005/8/Ad1, p54 Anx III.
- ☞ The start date of the renewed crediting period is the first day after the ending date of the previous crediting period.

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]

BOX: Equipment performance [Glos ver1, p16]

♦To determine equipment performance, PPs shall use:

☞ (a) The appropriate value specified in CMP/2005/8/Ad1 p43;

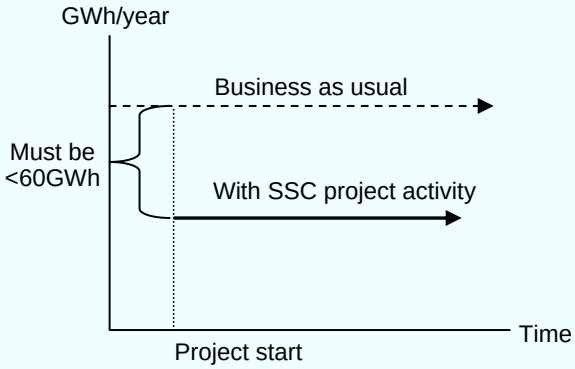
☞ (b) If the value specified in (a) is not available, the national standard for the performance of the equipment type;

☞ (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.

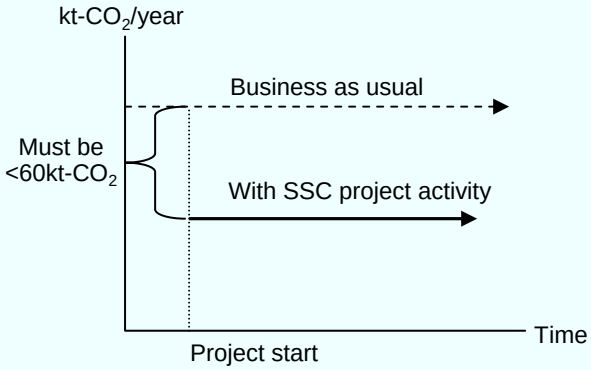
Type II project activities or those relating to improvements in energy efficiency which reduce energy consumption, on the supply and/or demand side, shall be limited to those with a maximum output of 60 GWh per year (or an appropriate equivalent); [CMP/2006/10/Ad1, p8 para28(b)]



☞ 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)]



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 [http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentA.pdf]

- The attachment A to Appendix B (=CMP/2005/8/Ad1 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:

Investment barrier:
☞ a financially more viable alternative to the project activity would have led to higher emissions;

Barrier due to prevailing practice:
☞ prevailing practice or existing regulatory or policy requirements would have led to implementation of a technology with higher emissions;

Technological barrier:
☞ 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;

Other barriers:
☞ 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.

- Quantitative evidence that the project activity would otherwise not be implemented may be provided instead of a demonstration based on the barriers listed above.

17-3. Bundling of 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. Afforestation and Reforestation CDM (A/R CDM)

18-1. 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, CO_2 once sequestered in trees could be release back into the atmosphere in an occasion of 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]

PPs shall provide evidence that the land within the planned project boundary is eligible as an A/R CDM project activity. In order to demonstrate, PPs shall provide one of the following verifiable information: [EB22 Anx16]

- ☞ Aerial photographs or satellite imagery complemented by ground reference data; or
- ☞ Ground based surveys (land use permits, land use plans or information from local registers such as cadastre, owners register, land use or land management register); or
- ☞ If options above are not available/applicable PPs shall submit a written testimony which was produced by following a participatory rural appraisal methodology.

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]

18-2. 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.

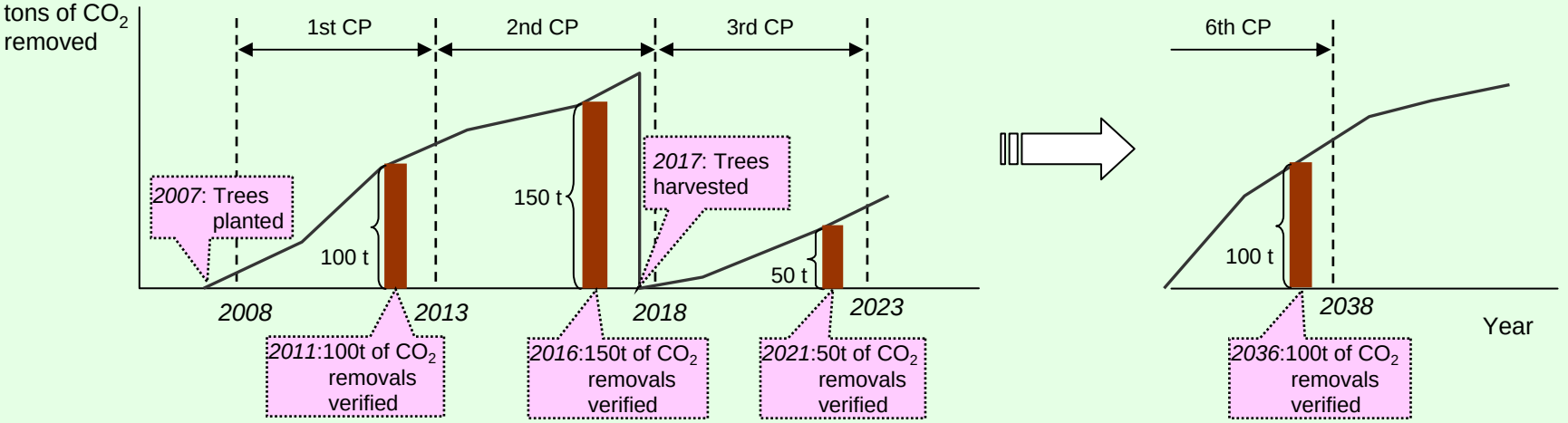
Expiry of tCERs and lCERs

- ☞ 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]

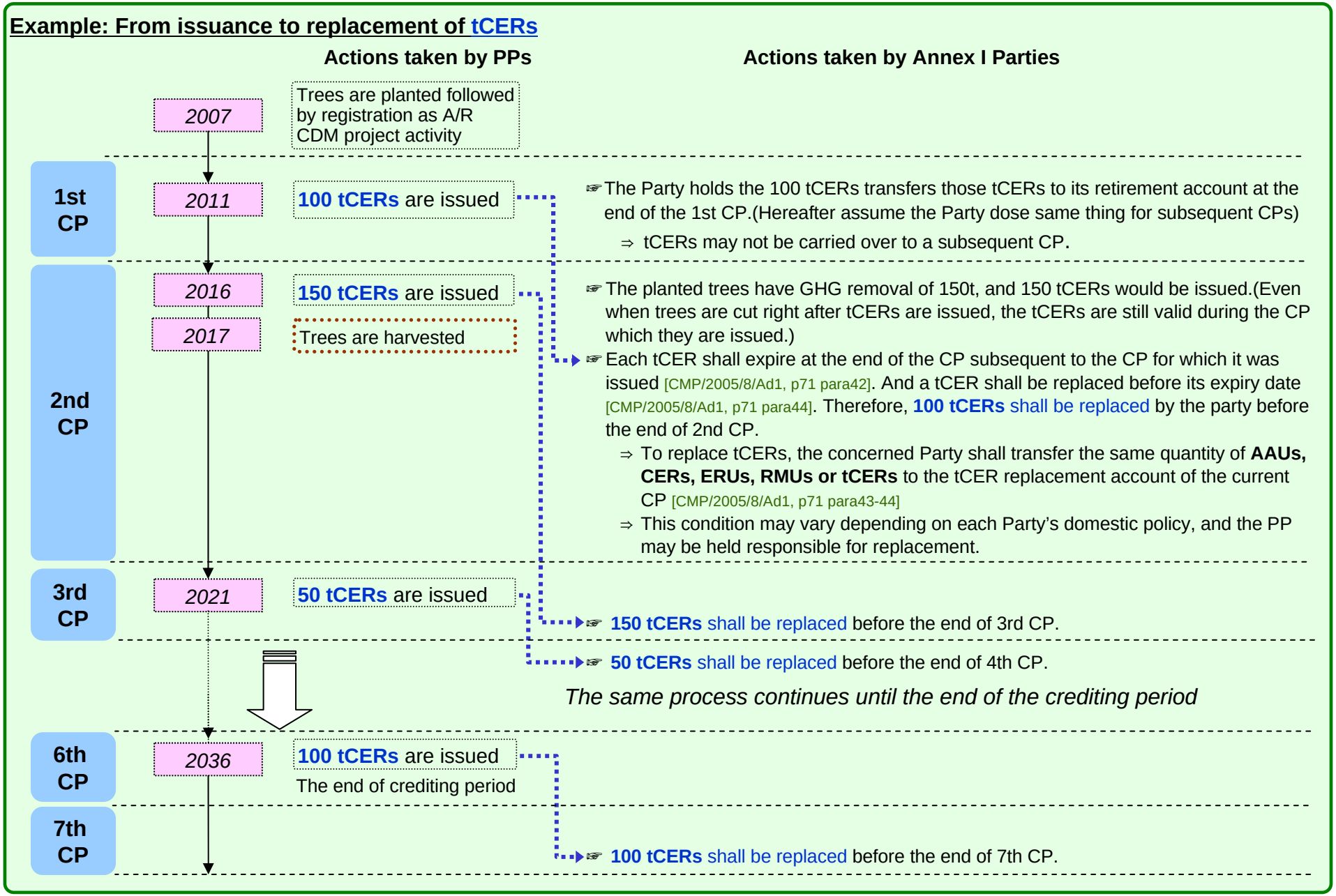
Example: Changes in net GHG removals by a A/R project activityt

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.

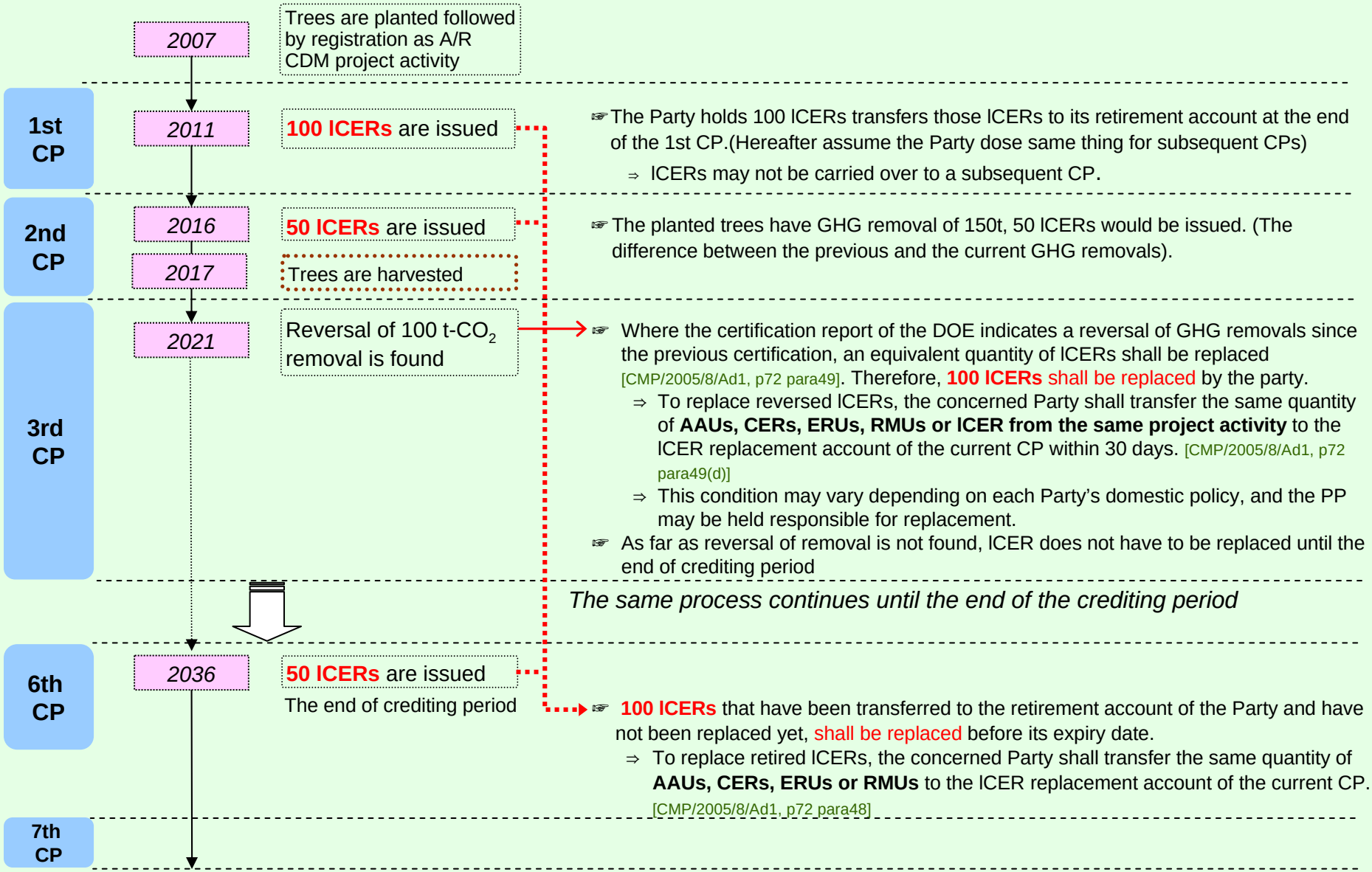
- ☞ Trees are planted in *2007*.
- ☞ 1st issuance of **tCERs** or **lCERs** takes place in *2011*. Trees are left to grow during the 1st and 2nd commitment periods and 2nd issuance of **tCERs** or **lCERs** takes place in *2016*.
- ☞ **Assuming** each commitment period (CP) would be **5 years**.
- ☞ 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.



Example: From issuance to replacement of tCERs



Example: From issuance to replacement of lCERs



18-3. Calculation of GHG removals

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

Equations to calculate tCERs

(carbon stock in the project – carbon stock in the baseline)
in the carbon pools, at the time of verification

less

cumulative GHG emissions from the project

less

cumulative GHG emissions, outside the project boundary due to A/R

less

(carbon stock in the baseline – carbon stock in the project)
in the carbon pools outside the project boundary affected by A/R,
at the time of verification

Equations to calculate lCERs

(increment of the carbon stock in the project –
increment of the carbon stock in the baseline)
in the carbon pools, at the time of 2 verification period respectively

less

GHG emissions from the project, between 2 verification period

less

cumulative GHG emissions, outside the project boundary due to A/R,
between 2 verification period

less

(increment of the carbon stock in the baseline –
increment of the carbon stock in the project)
in the carbon pools outside the project boundary affected by A/R,
at the time of 2 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: N_2O Emissions from fertilizer application

The EB agreed to guidance on accounting for emissions of N_2O from fertilizer application.

- ☞ Only direct (e.g. volatilization), and not indirect (e.g. run-off), emissions of N_2O from application of fertilizers within the project boundary shall be accounted for in A/R project activities;
- ☞ If the only source of N_2O 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 N_2O 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)]

18-4. 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-CO_2/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-CO_2/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)]

If a small-scale A/R CDM project activity results in net GHG removals by sinks greater than 8,000t of CO_2 per year, the excess removals will not be eligible for the issuance of **tCERs** or **lCERs**.
[CMP/2005/8/Ad1, p62 para1(i)]

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 -03.”

19. Registry and international transaction log (ITL)

19-1. 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 Party 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 lCERs, that have expired in a holding account of the CDM registry, and lCERs 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.

19-2. National registry

♦ 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.

☞ 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, lCERs 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) lCER replacement account, to cancel AAUs, CERs, lCERs, ERUs and/or RMUs for the purposes of replacing lCERs. [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]

Serial number of KP units *Below are images for illustrative purposes

- 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

1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
XX	1		000,000,000,000,001	999,999,999,999,999	01	01	1	0000001	1	XX/YY/ZZ

	Identifier	Range or Codes
1	Originating Registry	Two-letter country codes in ISO3166, as of 01 January 2005
2	Unit Type	1 = AAU, 2 = RMU, 3 = ERU converted from AAU, 4 = ERU converted from RMU, 5 = CER, 6 = tCER, 7 = lCER
3	Supplementary Unit Type	Blank for Kyoto-only Units, or as defined by STL
4	Unit Serial Block Start	Unique numeric values assigned by registry from 1 - 999,999,999,999,999
5	Unit Serial Block End	Unique numeric values assigned by registry from 1 - 999,999,999,999,999
6	Original Commitment Period	1 - 99
7	Applicable Commitment Period	1 - 99
8	LULUCF Activity	1 = Afforestation and reforestation, 2 = Deforestation, 3 = Forest management, 4 = Cropland management, 5 = Grazing land management, 6 = Revegetation
9	Project Identifier	Unique numeric value assigned by registry for Project
10	Track	1 or 2
11	Expiry Date	Expiry Date for tCERs or lCERs

[Data exchange standards for registry system under the Kyoto Protocol, draft technical specifications Annexes Non-paper, November 3, 2004, p F-2]

Publicly accessible information through national registry

Each national registry shall make non-confidential information publicly available through the Internet.
[CMP/2005/8/Ad2, p32 para44-48]

☞This also applies to information on accounts held by legal entities.

♦Information on accounts
☞The holder of the account, representative name and contact information of the account holder, etc.

♦Information on the total quantity of KP units

♦Holdings of KP units in each account

♦Information on the JI project
☞Project name, location, years of ERU issuance, relevant publicly available documentation.

♦A list of legal entities authorized by the Party to participate to the Kyoto Mechanisms.

19-3. 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 lCER), 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 lCERs).

(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 lCER has to occur, 1 month prior to the expiry of each tCER or lCER. [CMP/2005/8/Ad1, p73 para55]

☞ Where a Annex I Party does not replace tCERs or lCERs 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)]

Attachment 1. CDM documents

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

♦Revisions come into effect once adopted by the EB.
♦Revisions to the CDM-PDD do not affect project activities:
☞ Already validated, or already submitted to the OE for validation, prior to the adoption of the revised CDM-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.
[PDD GL ver6.2, p4 para9-10]

(Version 03 - in effect as of 28 July 2006) [EB25 Anx15]

SECTION A. General description of project activity

- A.1. Title of the project activity
- A.2. Description of the project activity
- A.3. Project participants
- A.4. Technical description of the project activity
  - A.4.1. Location of the 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.Detail of physical location, including information allowing the unique identification of this project activity:
  - A.4.2. Category(ies) of project activity
  - A.4.3. Technology to be employed by the project activity
  - A.4.4. Estimated amount of emission reductions over the chosen crediting period
  - A.4.5. Public funding of the 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 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)

(Version 03 - in effect as of 28 July 2006) [EB25 Anx15]

- **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.

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

1. Methodology title (for baseline and monitoring)
2. Selected baseline approach (from paragraph 48 of the CDM modalities and procedures)
   - Explanation/justification of choice:
3. Applicability conditions
   - Methodology procedure:
   - Explanation/justification:
4. Summary description of major baseline and monitoring methodological steps
   - a. Baseline methodology
   - b. Monitoring methodology
5. Application of the methodology in other circumstances

SECTION II. Baseline methodology description

1. Project boundary
   - Methodology procedure:
   - Explanation/justification:
2. Procedure for selection of the most plausible baseline scenario
   - Methodology procedure:
   - Explanation/justification:
3. Additionality
   - Methodology procedure:
   - Explanation/justification:
4. Baseline emissions
   - Methodology procedure:
   - Explanation/justification:
5. Project emissions
   - Methodology procedure:
   - Explanation/justification:
6. Leakage
   - a. Baseline methodology
   - b. Monitoring methodology
7. Emissions reductions
   - Methodology procedure:
   - Explanation/justification:
8. Changes required for methodology implementation in 2nd and 3rd crediting periods
   - Methodology procedure:
   - Explanation/justification:
9. Data and parameters not monitored
   - Methodology procedure:
   - Explanation/justification:

SECTION III. Monitoring methodology description

1. Monitoring procedures
   - Methodology procedure:
   - Explanation/justification:
2. Data and parameters monitored
   - Explanation/justification:

SECTION IV. Reference and other information

(Version 01 - in effect as of 19 May 2006) [EB24 Anx17]

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.
[SSC GL ver4, p4 para11-12]

(Version 03 - in effect as of 22 December 2006) [EB28 Anx34]

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)

2-2. Forms for submission of bundled small-scale CDM project activities (F-CDM-SSC-BUNDLE)

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. A/R CDM documents

3-1. Project Design Document for A/R project activities (CDM-AR-PDD)

(Version 03) [EB26 Anx19] ☞Also see "Guidelines for completing CDM-A/R-PDD and CDM-A/R-NM version 06"

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 / lCERs 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

(Version 03) [EB26 Anx19]

SECTION D. Estimation of *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 *ex ante* actual net GHG removals by sinks
- D.2. Estimate of the *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 *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 support 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

3-2. Proposed new baseline and monitoring methodology for A/R (CDM-AR NM)

(Version 02) [EB26 Anx20]

☞Also see "Technical guidelines for the development of new A/R baseline and monitoring methodologies version 01." [EB28 Anx19]

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

1. Methodology title (for baseline and monitoring) and history of submission
   - Methodology title:
   - If this methodology is a based on a previous submission or an AM, please state the relevant reference number (ARNMXXX/AR-AMXXX). Explain briefly the main differences and/or rationale for not using the AM.
2. Selected baseline approach for A/R CDM project activities
   - Choose one (delete others): | Explanation/justification of choice:
3. Applicability conditions
   - Methodology procedure: | Explanation/justification
4. Selected carbon pools
5. Summary description of major baseline and monitoring methodological steps
   - a. Baseline methodology | b. Monitoring methodology

SECTION II. Baseline methodology description

1. Project boundary
   - Methodology procedure:
   - Explanation/justification of choice (only if space in the table is not sufficient). Explain/justify differences in emission sources covered by baseline and project activity, if any:
2. Stratification
   - Methodology procedure: | Explanation/justification
3. Procedure for selection of the most plausible baseline scenario
   - Methodology procedure: | Explanation/justification
4. Additionality
   - Methodology procedure: | Explanation/justification
5. Estimation of baseline net GHG removals by sinks
   - Methodology procedure: | Explanation/justification
6. *Ex ante* actual net GHG removals by sinks
   - Methodology procedure: | Explanation/justification
7. Leakage
   - Methodology procedure: | Explanation/justification
8. *Ex ante* net anthropogenic GHG removal by sinks
   - Methodology procedure:
9. Uncertainties and conservative approach
   - Methodology procedure: | Explanation/justification
10. Data needed for *ex ante* estimations
11. Other information

Section III: Monitoring methodology description

1. Monitoring of project implementation
   - Methodology procedure: | Explanation/justification
2. Sampling design and stratification
   - Methodology procedure: | Explanation/justification
3. Calculation of *ex post* baseline net GHG removals by sinks, if required
   - Methodology procedure: | Explanation/justification
4. Data to be collected and archived for the estimation of baseline net GHG removals by sinks
5. Calculation of *ex post* actual net GHG removal by sinks
   - Methodology procedure:
6. Data to be collected and archived for *ex post* actual net GHG removals by sinks
7. Leakage
   - Methodology procedure: | Explanation/justification
8. Data to be collected and archived for leakage
9. *Ex post* net anthropogenic GHG removal by sinks
   - Methodology procedure:
10. Uncertainties and conservative approach
    - Methodology procedure: | Explanation/justification
11. Other information

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

Attachment 4. Tool for the demonstration and assessment of additionality (ver3)

[EB29 Anx5]

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.

Pass

Step 2 or Step 3, or both step 2 and step 3

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.

Pass

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 3 b. 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

Attachment 5. Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM0002 ver6)

[EB24 Anx7]

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/m^2, 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 CO_2 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.

☞ The EB clarified that trans-national electricity systems are eligible under ACM0002 and the DNAs of countries in these regions, across which the electric system spans, shall be considered as host Parties and shall provide a letter of approval.

☞ The EB clarified that the grid emission factor in this context shall be estimated for the “regional electricity system.”

[EB28 Rep, para14]

Baseline and Emission Reductions

ER_y
The GHG emission reduction achieved by the project activity during a given year "y"

=

BE_y
Baseline emissions

-

PE_y
Project emissions

$PE_y = 0$ except for geothermal project activities

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

$BE_y = EF_y * EG_y$

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

The baseline emissions factor in [t-CO_2/MWh]

EF_y (Combined Margin EF) = W_{OM}* $EF_{OM,y}$ + W_{BM}* $EF_{BM,y}$

Default weights are (W_{OM} = W_{BM} = 0.5). For wind and solar projects, the default weights are (W_{OM} =0.75 and W_{BM}=0.25). Alternative weights can be used, as long as W_{OM} + W_{BM} = 1, and appropriate evidence justifying the alternative weights is presented.

$EF_{OM,y}$ (the Operating Margin emission factor)[t-CO_2/MWh]
$EF_{OM,y}$ is calculated based on one of the *following 4 methods*:

Are there enough data available to analyze dispatch data?

- Yes → *(1)Dispatch Data Analysis OM*
- No → 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 → *(2)Simple OM*
  - No → Are there enough data available to apply Simple Adjusted OM?
    - Yes → *(3)Simple adjusted OM*
    - 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])

$EF_{BM,y}$ (the Build Margin emission factor)[t-CO_2/MWh]
PPs should choose between the following 2 options a sample group that has the larger annual generation:

- ⇒ The 5 power plants that have been built most recently, or
- ⇒ The power plants capacity additions in the electricity system that comprise 20% of the system generation [in MWh] and that have been built most recently. (If 20% falls on part capacity of a plant, that plant is fully included in the calculation.)

$EF_{BM,y}$ is calculated by dividing CO_2 emissions [t-CO_2] of the chosen sample group by the electricity [MWh] delivered to the grid by that group.

PPs shall choose between one of the following 2 options, and the choice cannot be changed during the crediting period:

Option 1. Calculate $EF_{BM,y}$ ex ante based on the most recent information available on plants already built at the time of PDD submission.

Option 2. For the 1st crediting period, $EF_{BM,y}$ must be updated annually ex post for the year in which actual project generation and associated emissions reductions occur. For subsequent crediting periods, $EF_{BM,y}$ should be calculated ex-ante, as described in option 1 above.

Calculation methods for $EF_{OM,y}$ (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 λ.

(ii) The Simple Adjusted OM emission factor [t-CO_2/MWh] is calculated as "λ x (emission factor of low-cost/must-run power sources)" + "(1- λ) x (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.

◆Simple OM, Simple Adjusted OM and Average OM emission factors can be calculated using either of the two following data vintages for years:

☞ (*ex-ante*) the full generation-weighted average for the most recent 3 years for which data are available at the time of PDD submission, if or,

☞ The year in which project generation occurs, if $EF_{OM,y}$ is updated based on *ex-post* monitoring.

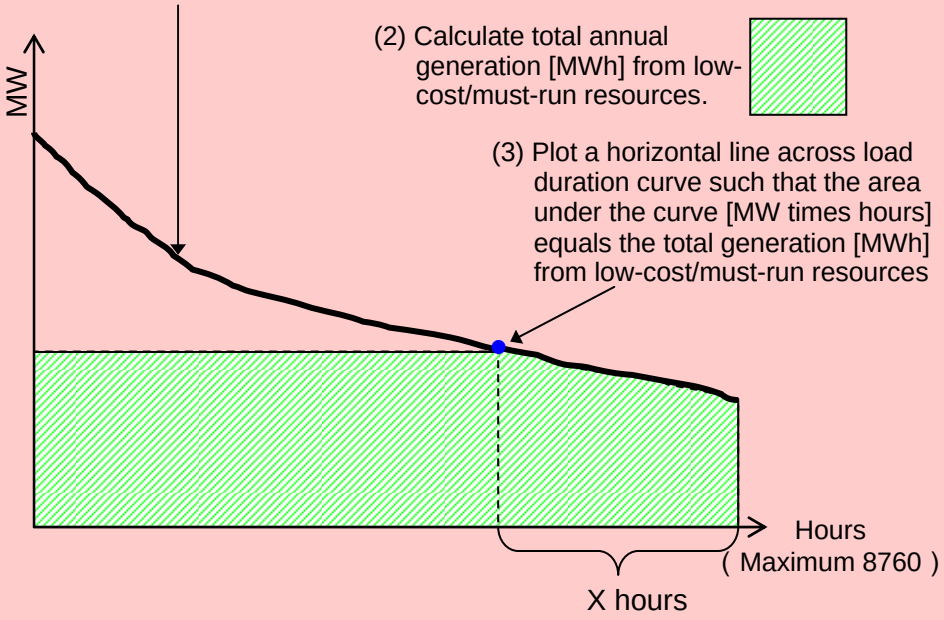
◆The choice between *ex-ante* and *ex-post* vintage cannot be changed during the crediting period.

Calculation methods for $EF_{BM,y}$ (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 λ 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.



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

(5) λ = X/8760

*If the lines do not intersect at step (3), then λ 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 exporting 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.

♦Determining the BM emission factor

- ☞ The spatial extent is limited to the project electricity system, except where recent or likely future additions to transmission capacity enable significant increases in imported electricity.
  - ⇒ In such cases, the transmission capacity may be considered a build margin source, with the emission factor determined as for the OM imports above.

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.

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

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 6. Guidance and clarifications regarding methodological issues

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".

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.

Consideration of uncertainties when using sampling [EB22 Anx2, para10]

Methodologies employing sampling to derive parameters in estimating emissions reductions shall quantify these parameter uncertainties at the 95% confidence level. In addition, the choice of the upper or lower bounds to be used in estimating emission reductions shall be conducted in a manner that ensures conservativeness.

Inclusion/exclusion of emission sources in baseline and monitoring methodologies [EB22 Anx2, para11]

- When defining which emission sources should be considered in the project boundary, in the baseline scenario and in the calculation of leakage emissions, PPs should make conservative assumptions,
- For example the magnitude of emission sources omitted in the calculation of project emissions and leakage effects (if positive) should be equal to or less than the magnitude of emission sources omitted in the calculation of baseline emissions.

Consideration of changes in carbon pools due to a CDM project activity [EB20 Anx8, para3]

- Where a project activity, which does not seek to obtain tCERs or lCERs from A/R project activities:
  - ☞ may directly or indirectly results in a net decrease of carbon pools compared to what would occur in the absence of the project activity, such changes should be taken into account in the calculation of emission reductions subtracting the corresponding quantities from emission reductions;
  - ☞ may directly or indirectly results in a net increase of carbon pools compared to what would occur in the absence of the project activity, this increase should not be taken into account in the calculation of emission reductions;
- Where a project activity does seek to obtain tCERs or lCERs from A/R project activities, this activity should be treated as a separate project activity and shall fulfill the modalities and procedures for the A/R CDM.

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/m^2), 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/m^2 cannot use current methodologies;
- ☞ Power densities greater than 4 W/m^2 but less than or equal to 10 W/m^2 can use the currently AMs, with an emission factor of 90 gCO2eq/kWh for project reservoir emissions;
- ☞ Power densities greater than 10 W/m^2 can use current AMs and the project emissions from the reservoir may be neglected.

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.

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.

Attachment 7. 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. [EB28 Anx15]

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.

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]

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.

Attachment 8. Clarifications regarding biomass

8-1. Definition of renewable biomass

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”.

8-2. Leakage in biomass SSC project activities

General guidance on leakage in biomass SSC project activities [EB28 Anx35 para2-5]

- For small-scale energy CDM project activities involving renewable biomass, there are three types of emission sources that are potentially significant (>10% of emission reductions) and attributable to the project activities.
- These emission sources may be project emissions (if under the control of PPs, i.e. if the land area where the biomass is grown is included in the project boundary) or sources of leakage (if the source is not under control of PPs). The Table below summarizes for different types of biomass, the cases where the emission source is relevant and the cases where it is not.

Biomass type	Activity / source	Shift of pre-project activities	Emissions from biomass generation / cultivation	Competing use of biomass
		Decreases of carbon stocks, for example as a result of deforestation, outside the land area where the biomass is grown, due to shifts of pre-project activities.	Emissions related to the production of the biomass.	The biomass may in the absence of the project activity be used elsewhere, for the same or a different purpose.
Biomass from forest	Existing forests	-	-	X
	New forests	X	X	-
Biomass from croplands or grasslands (woody or non-woody)	In the absence of the project the land would be used as cropland / wetland	X	X	-
	In the absence of the project the land would be Abandoned	-	X	-
Biomass residues or wastes	Biomass residues or wastes are collected and Used	-	-	X

Attachment 9. Programmatic CDM

Definition of a programme of activities (PoA) [EB28 Anx15]

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 (project activities under a programme of activities: **CPA**s).

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 (chap.7-2). PoA addressing mandatory local/regional/national policies and regulations are permissible provided it is demonstrated that these policies and regulations are not enforced as envisaged. If they are enforced, the effect of the PoA is to increase the enforcement beyond the mandatory level required.

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, information which is determined for the purpose in the registered PoA;
- ☞ The duration of the PoA, not exceeding 30 years, 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 a coordinating/managing entity. The entity shall inform the EB of addition(s) giving details of the program activity(ies) in a pre-defined format for submitting such information.
- ☞ The crediting period of a CPA will be either a maximum of 7 years which may be renewed at most 2 times or a maximum of 10 years with no option of renewal. However, the duration of crediting period of any CPA shall be limited to the end date of the PoA.

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.

Entity

- ☞ A PoA shall be proposed by any entity, which can be a public or private entity, which shall be identified in the modalities of communication (chap.4-7) as the entity which communicates with the EB. PPs of the PoA shall make arrangements with the coordinator or managing entity, relating to communications and distribution of CERs.

Double counting

- ☞ The coordinating entity of the PoA shall identify measures to ensure that all CPAs under PoA are neither registered as an individual CDM project activity nor included in another registered PoA.

Baseline and additionality

- ☞ A PoA shall apply one AM, involving one type of technology or measure applicable to all CPAs;
- ☞ The PoA shall demonstrate that net reductions (removals) in GHG emissions for each CPA under the PoA are real and measurable, are an accurate reflection of what has occurred within the project boundary, and are uniquely attributable to the PoA.
- ☞ The PoA shall therefore define at registration, the type of information which is to be provided for each CPA to ensure that leakage, additionality, establishment of the baseline, baseline emissions, eligibility and double counting are unambiguously defined for each CPA within the PoA.

Monitoring

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

Attachment 10. Approved methodologies

Sectoral Scope		Approved Methodologies		*1	*2
1	Energy industries (renewable - / non-renewable sources)	ACM0002 ver.6	Consolidated baseline methodology for grid-connected electricity generation from renewable sources	CO_2	72
		ACM0004 ver.2	Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation	CO_2	25
		ACM0006 ver.4	Consolidated methodology for grid-connected electricity generation from biomass residues	CO_2	17
		ACM0007	Baseline methodology for conversion from single cycle to combined cycle power generation	CO_2	0
		ACM0009 ver.3	Consolidated baseline methodology for fuel switching from coal or petroleum fuels to natural gas	CO_2	0
		AM0007	Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants	CO_2	0
		AM0010	Landfill gas capture and electricity generation projects where landfill gas capture is not mandated by law	CH_4	1
		AM0014 ver.2	Natural gas-based package cogeneration	CO_2	0
		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	CO_2	0
		AM0024	Methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants	CO_2	2
		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	CO_2	0
		AM0029	Baseline methodology for grid connected electricity generation plants using natural gas	CO_2	0
		AM0032	Baseline methodology for waste gas or waste heat based cogeneration system	CO_2	0
		AM0035	SF_6 Emission Reductions in Electrical Grids	SF_6	0
		AM0036	Fuel switch from fossil fuels to biomass residues in boilers for heat generation	CO_2	0
		AM0042	Grid-connected electricity generation using biomass from newly developed dedicated plantations	CO_2	0
		AM0044	Energy efficiency improvement projects: boiler rehabilitation or replacement in industrial and district heating sectors	CO_2	0
		AM0045 ver.1.1	Grid connection of isolated electricity systems	CO_2	0
		AM0047	Production of waste cooking oil-based biodiesel for use as fuel	CO_2	0
		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	CO_2	0
		AM0053	Increased electricity generation from existing hydropower stations through Decision Support System optimization	CO_2	0

*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 May 7, 2007.

Attachment 10. Approved methodologies

Sectoral Scope		Approved Methodologies		*1	*2
2	Energy distribution				
3	Energy demand	AM0017 ver.2	Steam system efficiency improvements by replacing steam traps and returning condensate	CO_2	0
		AM0018 ver.1.1	Baseline methodology for steam optimization systems	CO_2	7
		AM0020	Baseline methodology for water pumping efficiency improvements	CO_2	0
		AM0046	Distribution of efficient light bulbs to households	CO_2	0
4	Manufacturing industries	ACM0003 ver.4	Emissions reduction through partial substitution of fossil fuels with alternative fuels in cement manufacture	CO_2	5
		ACM0005 ver.3	Consolidated methodology for increasing the blend in cement production	CO_2	14
		ACM0009 ver.3	Consolidated methodology for industrial fuel switching from coal or petroleum fuels to natural gas	CO_2	1
		AM0007	Analysis of the least-cost fuel option for seasonally-operating biomass cogeneration plants	CO_2	0
		AM0014 ver.2	Natural gas-based package cogeneration	CO_2	0
		AM0024	Baseline methodology for greenhouse gas reductions through waste heat recovery and utilization for power generation at cement plants	CO_2	3
		AM0032	Baseline methodology for waste gas or waste heat based cogeneration system	CO_2	0
		AM0033	Use of non-carbonated calcium sources in the raw mix for cement processing	CO_2	0
		AM0036	Fuel switch from fossil fuels to biomass residues in boilers for heat generation	CO_2	0
		AM0040 ver.1.1	Baseline and monitoring methodology for project activities using alternative raw materials that contain carbonates in clinker manufacturing in cement kilns	CO_2	0
		AM0041	Mitigation of Methane Emissions in the Wood Carbonization Activity for Charcoal Production	CH_4	0
		AM0049	Methodology for gas based energy generation in an industrial facility	CO_2	0
5	Chemical industries	AM0021	Baseline Methodology for decomposition of N_2O from existing adipic acid production plants	N_2O	2
		AM0027 ver.2.1	Substitution of CO_2 from fossil or mineral origin by CO_2 from renewable sources in the production of inorganic compounds	CO_2	1
		AM0028 ver.4.1	Catalytic N_2O destruction in the tail gas of Nitric Acid or Caprolactam Production Plants	N_2O	6
		AM0034 ver.2	Catalytic reduction of N_2O inside the ammonia burner of nitric acid plants	N_2O	0
		AM0037 ver.1.1	Flare reduction and gas utilization at oil and gas processing facilities	CH_4	0
		AM0047	Production of waste cooking oil-based biodiesel for use as fuel	CO_2	0
		AM0050	Feed switch in integrated Ammonia-urea manufacturing industry	CO_2	0
		AM0051	Secondary catalytic N_2O destruction in nitric acid plants	N_2O	0
6	Construction				
7	Transport	AM0031	Methodology for Bus Rapid Transit Projects	CO_2	1

*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 May 7, 2007.

Sectoral Scope		Approved Methodologies		*1	*2
8	Mining/mineral production	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	CH_4	3
9	Metal production	AM0030	PFC emission reductions from anode effect mitigation at primary aluminium smelting facilities	PFC	0
		AM0038	Methodology for improved electrical energy efficiency of an existing submerged electric arc furnace used for the production of SiMn	CO_2	0
10	Fugitive emissions from fuels (solid, oil and gas)	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	CH_4	3
		AM0009 ver.2	Recovery and utilization of gas from oil wells that would otherwise be flared	CH_4	2
		AM0023	Leak reduction from natural gas pipeline compressor or gate stations	CH_4	0
		AM0037	Flare reduction and gas utilization at oil and gas processing facilities	CH_4	0
		AM0043	Leak reduction from a natural gas distribution grid by replacing old cast iron pipes with polyethylene pipes	CH_4	0
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	AM0001 ver.5	Incineration of HFC23 waste streams	HFC	16
		AM0035	SF_6 emission reductions in electrical Grids	SF_6	0
12	Solvent use				

*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 May 7, 2007.

Attachment 10. Approved methodologies

Sectoral Scope		Approved Methodologies		*1	*2
13	Waste handling and disposal	ACM0001 ver.5	Consolidated baseline methodology for landfill gas project activities	CH_4	36
		ACM0010 ver.2	Consolidated baseline methodology for GHG emission reductions from manure management systems	$CH_{4,}$	0
		AM0002 ver.2	Greenhouse gas emission reductions through landfill gas capture and flaring where the baseline is established by a public concession contract	CH_4	1
		AM0003 ver.4	Simplified financial analysis for landfill gas capture projects	CH_4	5
		AM0010	Landfill gas capture and electricity generation projects where landfill gas capture is not mandated by law	CH_4	1
		AM0011 ver.3	Landfill gas recovery with electricity generation and no capture or destruction of methane in the baseline scenario	CH_4	6
		AM0012	Baseline methodology for biomethanation of municipal solid waste in India, using compliance with MSW rules	CH_4	0
		AM0013 ver.4	Avoided methane emissions from organic waste-water treatment	CH_4	3
		AM0022 ver.4	Avoided Wastewater and On-site Energy Use Emissions in the Industrial Sector	CH_4	1
		AM0025 ver.6	Avoided emissions from organic waste through alternative waste treatment processes	CH_4	1
		AM0039	Methane emissions reduction from organic waste water and bioorganic solid waste using co-composting	CH_4	0
14	Afforestation and reforestation	AR-AM0001 ver.2	Reforestation of degraded land	CO_2	1
		AR-AM0002	Restoration of degraded lands through afforestation/reforestation	CO_2	0
		AR-AM0003 ver.2	Afforestation and reforestation of degraded land through tree planting, assisted natural regeneration and control of animal grazing	CO_2	0
		AR-AM0004	Reforestation or afforestation of land currently under agricultural use	CO_2	0
		AR-AM0005	Afforestation and reforestation project activities implemented for industrial and/or commercial uses	CO_2	0
		AR-AM0006	Afforestation/Reforestation with Trees Supported by Shrubs on Degraded Land	CO_2	0
		AR-AM0007	Afforestation and Reforestation of Land Currently Under Agricultural or Pastoral Use	CO_2	0
15	Agriculture	ACM0010 ver.2	Consolidated baseline methodology for GHG emission reductions from manure management systems	CH_4	0

*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 May 7, 2007.

Approved methodologies for small scale CDM project activities	*1	*2
TYPE I - RENEWABLE ENERGY PROJECTS		
I.A. ver9 Electricity generation by the user	CO_2	5
I.B. ver8 Mechanical energy for the user	CO_2	0
I.C. ver9 Thermal energy for the user	CO_2	31
I.D. ver10 Renewable electricity generation for a grid	CO_2	214
TYPE II - ENERGY EFFICIENCY IMPROVEMENT PROJECTS		
II.A. ver8 Supply side energy efficiency improvements - transmission and distribution	CO_2	0
II.B. ver8 Supply side energy efficiency improvements - generation	CO_2	8
II.C. ver8 Demand-side energy efficiency programmes for specific technologies	CO_2	2
II.D. ver8 Energy efficiency and fuel switching measures for industrial facilities	CO_2	23
II.E. ver8 Energy efficiency and fuel switching measures for buildings	CO_2	5
II.F. ver8 Energy efficiency and fuel switching measures for agricultural facilities and activities	CO_2	0
TYPE III - OTHER PROJECT ACTIVITIES		
(III.A. Agriculture is under development)	-	-
III.B. ver10 Switching fossil fuels	CO_2	7
III.C. ver10 Emission reductions by low-greenhouse gas emitting vehicles	CO_2	0
III.D. ver11 Methane recovery	CH_4	58
III.E. ver10 Avoidance of methane production from biomass decay through controlled combustion	CH_4	20
III.F. ver3 Avoidance of methane production from biomass decay through composting	CH_4	0
III.G. ver4 Landfill methane recovery	CH_4	0
III.H. ver4 Methane recovery in wastewater treatment	CH_4	5
III.I. ver4 Avoidance of methane production in wastewater treatment through replacement of anaerobic lagoons by aerobic systems	CH_4	1
III.J. ver2 Avoidance of fossil fuel combustion for carbon dioxide production to be used as raw material for industrial processes	CO_2	0
III.K. ver1 Avoidance of methane release from charcoal production by shifting from pit method to mechanized charcoaling process	CH_4	0
III.L. ver1 Avoidance of methane production from biomass decay through controlled pyrolysis	CH_4	0
III.M. ver1 Reduction in consumption of electricity by recovering soda from paper manufacturing process	CO_2	0

*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 May 7, 2007.

Attachment 11. Methodological tools

Tool for the demonstration and assessment of additionality (ver 3) [EB29 Anx5]	This document provides for a step-wise approach to demonstrate and assess additionality.
Combined tool to identify the baseline scenario and demonstrate additionality (ver 2.1) [EB28 Anx14]	This tool provides for a step-wise approach to identify the baseline scenario and simultaneously demonstrate additionality.
Tool for the demonstration and assessment of additionality in A/R CDM project activities [EB21 Anx16]	This document provides for a step-wise approach to demonstrate additionality in A/R CDM projects.
Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site [EB26 Anx14]	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.
Tool to determine project emissions from flaring gases containing methane [EB28 Anx13]	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: ⇒ The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen; ⇒ 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).
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.

Attachment 12. 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 CO_2. 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/1997/7/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.
- 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

Species	Chemical formula	GWP	Species	Chemical formula	GWP
CO_2	CO_2	1	HFC-23	CHF3	11,700
Methane *	CH_4	21	HFC-236fa	C3H2F6	6,300
Nitrous oxide	N_2O	310	HFC-143a	C2H3F3	3,800
Perfluoroethane	C2F6	9,200	HFC-134a	CH2FCF3	1,300
Perfluoropentane	C5F12	7,500	HFC-134	C2H2F4	1,000
Perfluorohexane	C6F14	7,400	HFC-32	CH2F2	650
Sulphur hexafluoride	SF_6	23,900	HFC-41	CH3F	150

Climate Change 1995: The Science of Climate Change, p. 22, Intergovernmental Panel on Climate Change, 1996.

General Conversion Factors for Energy

To: / From:	TJ	Gcal	Mtoe	GWh
	Multiply by:			
TJ	1	238.8	2.388×10^{-5}	0.2778
Gcal	4.1868×10^{-3}	1	10^{-7}	1.163×10^{-3}
Mtoe	4.1868×10^{4}	10^{7}	1	11630
GWh	3.6	860	8.6×10^{-5}	1

CO_2 Emissions from fuel combustion (2006 Edition), p.I.11, International Energy Agency, 2006.

Carbon Emission Factor

Fossil fuel		CO_2 emission factor (kg/TJ)	Net calorific value (TJ/Gg) Gg=1000t	CO_2 emission factor (t-CO_2/t (Fuel))
Liquid Fossil	Crude Oil	73,300	42.3	3.101
	Motor Gasoline	69,300	44.3	3.070
	Other Kerosene	71,900	43.8	3.149
	Gas/Diesel Oil	74,100	43.0	3.186
	Liquefied Petroleum Gases	63,100	47.3	2.985
Solid Fossil	Anthracite	98,300	26.7	2.625
	Sub-Bituminous Coal	96,100	18.9	1.816
	Lignite	101,000	11.9	1.202
Gaseous Fossil	Natural Gas	56,100	48.0	2.693

2006 IPCC Guidelines for National Greenhouse Gas Inventories, p. 1.18-1.24, Intergovernmental Panel on Climate Change, 2006.

[Default carbon oxidation factor is 1] [CO_2 emission factors t-CO_2/t (Fuel) are calcurated and not apperad in the IPCC guideline]

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