



CDM and JI in CHARTS

Ver. 2.1

This document aims to give a comprehensive and easy-to-understand description of the Clean Development Mechanism (CDM) and other Kyoto Mechanisms. 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.

Therefore, this document is to be updated according to the developments in the international negotiations and rule-setting.

As for the details and exact expressions in the agreed texts, please refer to the respective documents available on the website of the secretariat of the United Nations Framework Convention on Climate Change <<http://unfccc.int/>>.

As of March 2005

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

<i>Examples of abbreviated titles used in this document, shown in []</i>	<i>Corresponding formal document titles</i>
CDM M&P	CDM Modalities and Procedures (Annex to Decision 17/CP.7) (FCCC/CP/2001/13/Add.2, p26-41)
CDM A/R M&P	Modalities and Procedures for Afforestation and Reforestation project activities under the CDM (Annex to Decision 19/CP.9) (FCCC/CP/2003/6/Add.2, p16-27)
CP/2001/13/Ad2 para1(a),p2	FCCC/ CP/2001/13/Add.2, paragraph1(a), page 2
KP Art.2 para1(a)	The Kyoto Protocol, Article2, paragraph1(a)
EB01 Rep para2(a),p3	Executive Board of the Clean Development Mechanism, 1st Meeting Report, paragraph2(a), page 3
MP01 Rep para2(a),p3	Report of the 1st Meeting of the Methodologies Panel, paragraph2(a), page 3
PDD guidelines ver2,p1	Guidelines for Completing CDM-PDD, CDM-NMB and CDM-NMM Version 02, page 1
Anx stands for Annex , Apx for Appendix , Att for Attachment , and Ann for Annotation .	

1. The Kyoto Protocol

1-1. Overview

- ◆ 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 (see p3) for Annex I Parties.

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

Countries have different targets for the 5-year period of 2008-2012 (1st commitment period)

- ☞ For example, EU countries commit to reduce their emissions by 8%, the USA by 7% and Japan by 6%, from their base-year emissions.
- ☞ The base-year emissions are the Party's aggregate GHG emissions in 1990 (whereas, countries may use 1995 as its base year for HFCs, PFCs, and SF₆).
- ☞ 'Assigned amounts' for each Party is calculated from the base-year emissions and emission reduction target.

Annex I Parties means those listed in Annex I of the UNFCCC. (see p3) They are developed countries including Economies in Transitions, e.g. Russia and Eastern Europe.

- ◆ 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>

Emissions Trading

<Article 17 of the protocol>

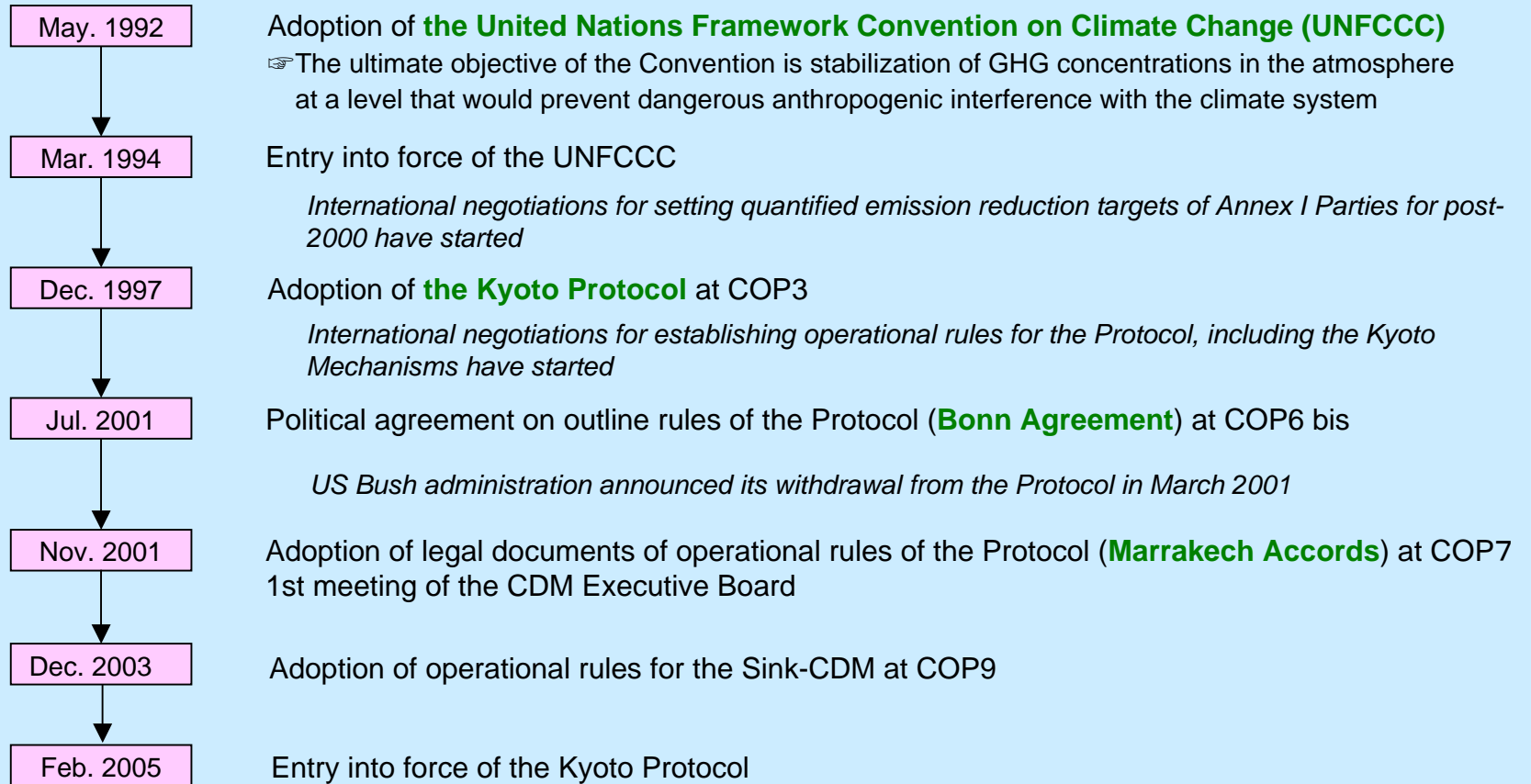
- ◆ Besides countries, private firms can use the Kyoto Mechanisms.
 - ☞ Provided the private firms meet eligibility requirements for using the Kyoto Mechanisms. (see p58)

BOX: Global Warming Potential (GWP)

GWP is a measure of the relative radiative effect of greenhouse gases compared to CO₂. GWP of methane is 21, nitrous oxide is 310, HFCs is 140-11700, PFCs is 6500-9200, and SF₆ is 23900 according to the the IPCC 2nd Assessment Report (SAR). Thus, 1t of methane emissions is equivalent to 21t of CO₂ emissions. 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.

1-2. History

◆ Negotiation history of the Kyoto Protocol is as follows:



BOX: Entry into force of the Kyoto Protocol

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

☞ As of 23 March 2005, 146 Parties have ratified the Protocol.

☞ 61.6% of the total CO₂ emissions for 1990 of the Annex I Parties have ratified the Protocol.

⇒ The Protocol entered into force on 16 February 2005.

1-3. List of Annex I Parties

◆ Quantified GHG emissions reduction targets (in other words, emission caps) for Annex I Parties are as follows.

⇒ Reduction targets stipulated in the Kyoto Protocol are -8% for each EU (15) member state Parties. However, the table below shows their reduction targets after adjusting the targets amongst the EU (15) member state Parties. [Council decision of 25 April 2002 (2002/358/CE)]

European Union (15 member states)			Economies in Transition (EIT)			Other Parties		
Party	Target	GHG emissions in 1990	Party	Target	GHG emissions in 1990	Party	Target	GHG emissions in 1990
Portugal	27.0%	58.4	Russian Federation	0%	3,050.0	Iceland	10%	3.3
Greece	25.0%	107.1	Ukraine	0%	919.2	<i>Australia</i>	8%	430.5
Spain	15.0%	284.6	<i>Croatia</i>	-5%	31.6	Norway	1%	52.1
Ireland	13.0%	53.4	Poland	-6%	564.4	New Zealand	0%	61.6
Sweden	4.0%	72.1	Romania	-8%	262.8	Canada	-6%	608.7
Finland	0.0%	76.8	Czech Republic	-8%	192.0	Japan	-6%	1,187.3
France	0.0%	564.2	Bulgaria	-8%	141.8	<i>USA</i>	-7%	6,129.1
Netherlands	-6.0%	211.4	Hungary	-6%	113.1	Switzerland	-8%	53.1
Italy	-6.5%	509.1	Slovakia	-8%	72.4	Liechtenstein	-8%	0.2
Belgium	-7.5%	146.1	Lithuania	-8%	50.1	<i>Monaco</i>	-8%	0.1
UK	-12.5%	742.6	Estonia	-8%	43.5	<i>Turkey</i>		
Austria	-13.0%	77.7	Latvia	-8%	28.9			
Denmark	-21.0%	68.8	Slovenia	-8%	20.6			
Germany	-21.0%	1,246.8	<i>Belarus</i>		126.6			
Luxembourg	-28.0%	13.4						
EU	-8.0%	4,231.4						

⇒ Countries written in *Italic* have not ratified the Kyoto Protocol as of March 2005.

⇒ Source of of GHG emissions in 1990 (unit: million t-CO₂ equivalent) is FCCC/CP/2004/5, and those figures are different from the base-year emissions under the Kyoto Protocol.

⇒ EIT Parties, which do not set 1990 as their base-year for the GHG emissions are Bulgaria(1988), Hungary(1985-87Average), Poland(1988), Romania(1989) and Slovenia(1986).

⇒ Croatia, Slovenia, Liechtenstein and Monaco have GHG emission reduction targets as Annex B Parties to the Kyoto Protocol; but they are not Annex I Parties to the UNFCCC.

1-4. List of non-Annex I Parties

◆ There is no quantified GHG emissions reduction targets for non-Annex I Parties.

☞ Non-Annex I Parties which have ratified the UNFCCC, and the Kyoto protocol are as follows.

Party	UNFCCC	KP	Party	UNFCCC	KP	Party	UNFCCC	KP	Party	UNFCCC	KP
Afghanistan	2002		Burkina Faso	1993		Djibouti	1995	2002	Haiti	1996	
Albania	1994		Burundi	1997	2001	Dominica	1993	2005	Honduras	1995	2000
Algeria	1993	2005	Cambodia	1995	2002	Dominican Republic	1998	2002	India	1993	2002
Angola	2000		Cameroon	1994	2002	Ecuador	1993	2000	Indonesia	1994	2004
Antigua And Barbuda	1993	1998	Cape Verde	1995		Egypt	1994	2005	Iran	1996	
Argentina	1994	2001	Central African Republic	1995		El Salvador	1995	1998	Israel	1996	2004
Armenia	1993	2003	Chad	1994		Equatorial Guinea	2000	2000	Jamaica	1995	1999
Azerbaijan	1995	2000	Chile	1994	2002	Eritrea	1995		Jordan	1993	2003
Bahamas	1994	1999	China	1993	2002	Ethiopia	1994		Kazakhstan	1995	
Bahrain	1994		Colombia	1995	2001	Fiji	1993	1998	Kenya	1994	2005
Bangladesh	1994	2001	Comoros	1994		Gabon	1998		Kiribati	1995	2000
Barbados	1994	2000	Congo	1996		Gambia	1994	2001	Kuwait	1994	2005
Belize	1994	2003	Cook Islands	1993	2001	Georgia	1994	1999	Kyrgyzstan	2000	2003
Benin	1994	2002	Costa Rica	1994	2002	Ghana	1995	2003	Lao Democratic People's Republic	1995	2003
Bhutan	1995	2002	Cote D'Ivoire	1994		Grenada	1994	2002	Lebanon	1994	
Bolivia	1994	1999	Cuba	1994	2002	Guatemala	1995	1999	Lesotho	1995	2000
Bosnia And Herzegovina	2000		Cyprus	1997	1999	Guinea	1993	2000	Liberia	2002	2002
Botswana	1994	2003	Democratic People's Republic of Korea	1994		Guinea-Bissau	1995		Libyan Arab Jamahiriya	1999	
Brazil	1994	2002	Democratic Republic Of The Congo	1995	2005	Guyana	1994	2003	Madagascar	1999	2003

☞ As of 23 March 2005

☞ The years shown in the table are; year of ratification of the UNFCCC; and year of ratification of the Protocol.

☞ Some Parties use the terms "Acceptance", "Approval" or "Accession" instead of "Ratification".

◆ The list of non-Annex I Parties (cont.)

Party	UNFCCC	KP	Party	UNFCCC	KP	Party	UNFCCC	KP	Party	UNFCCC	KP
Malawi	1994	2001	Niger	1995	2004	Samoa	1994	2000	The Former Yugoslav Republic Of Macedonia	1998	2004
Malaysia	1994	2002	Nigeria	1994	2004	San Marino	1994		Togo	1995	2004
Maldives	1992	1998	Niue	1996	1999	Sao Tome And Principe	1999		Tonga	1998	
Mali	1994	2002	Oman	1995	2005	Saudi Arabia	1994	2005	Trinidad And Tobago	1994	1999
Malta	1994	2001	Pakistan	1994	2005	Senegal	1994	2001	Tunisia	1993	2003
Marshall Islands	1992	2003	Palau	1999	1999	Serbia And Montenegro	2001		Turkmenistan	1995	1999
Mauritania	1994		Panama	1995	1999	Seychelles	1992	2002	Tuvalu	1993	1998
Mauritius	1992	2001	Papua New Guinea	1993	2002	Sierra Leone	1995		Uganda	1993	2002
Mexico	1993	2000	Paraguay	1994	1999	Singapore	1997		United Arab Emirates	1995	2005
Micronesia	1993	1999	Peru	1993	2002	Solomon Islands	1994	2003	United Republic Of Tanzania	1996	2002
Mongolia	1993	1999	Philippines	1994	2003	South Africa	1997	2002	Uruguay	1994	2001
Morocco	1995	2002	Qatar	1996	2005	Sri Lanka	1993	2002	Uzbekistan	1993	1999
Mozambique	1995	2005	Republic Of Korea	1993	2002	Sudan	1993	2004	Vanuatu	1993	2001
Myanmar	1994	2003	Republic Of Moldova	1995	2003	Suriname	1996		Venezuela	1994	2005
Namibia	1995	2003	Rwanda	1998	2004	Swaziland	1996		Viet Nam	1994	2002
Nauru	1993	2001	Saint Kitts And Nevis	1993		Syrian Arab Republic	1996		Yemen	1996	2004
Nepal	1994		Saint Lucia	1993	2003	Tajikistan	1998		Zambia	1993	
Nicaragua	1995	1999	Saint Vincent And The Grenadines	1996	2004	Thailand	1994	2002	Zimbabwe	1992	

☞ As of 23 March 2005

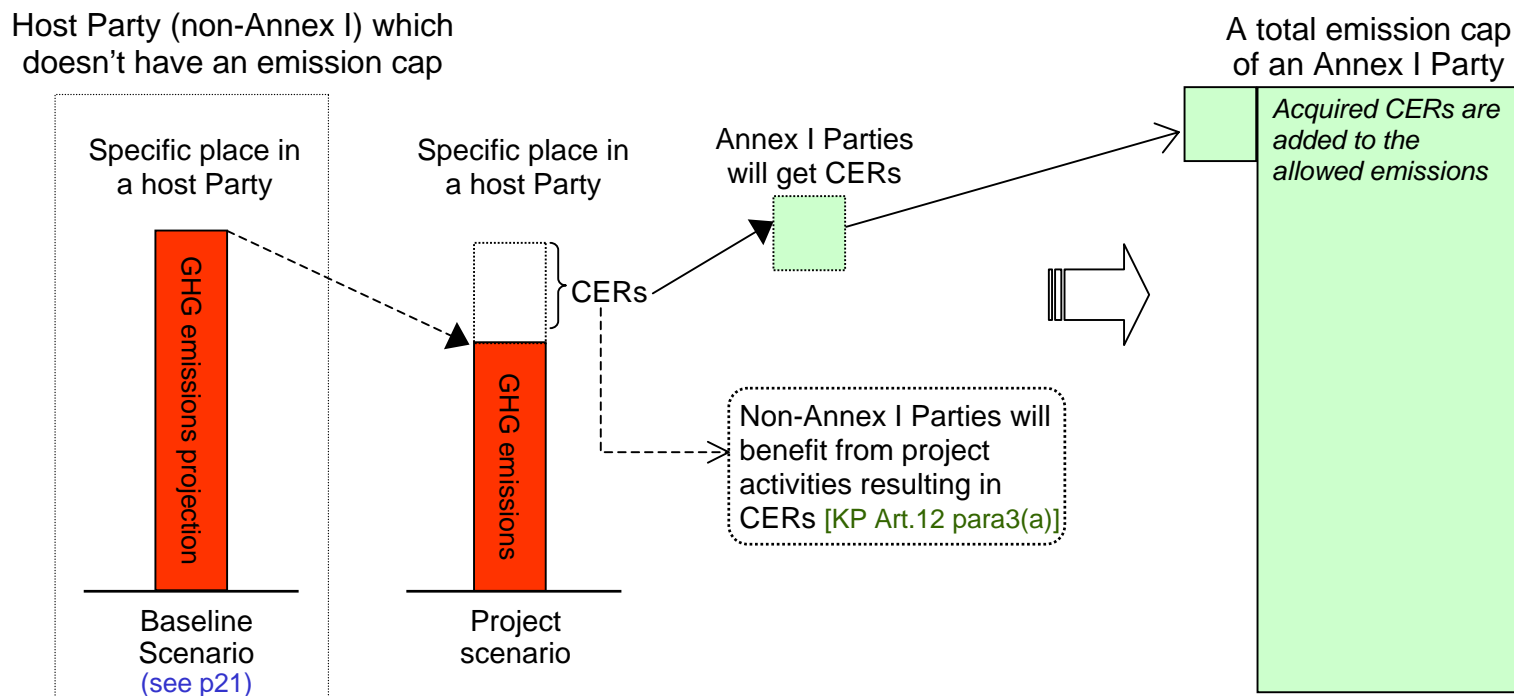
☞ The years shown in the table are; year of ratification of the UNFCCC; and year of ratification of the Protocol.

☞ Some Parties use the terms "Acceptance", "Approval" or "Accession" instead of "Ratification".

2. The Kyoto Mechanisms

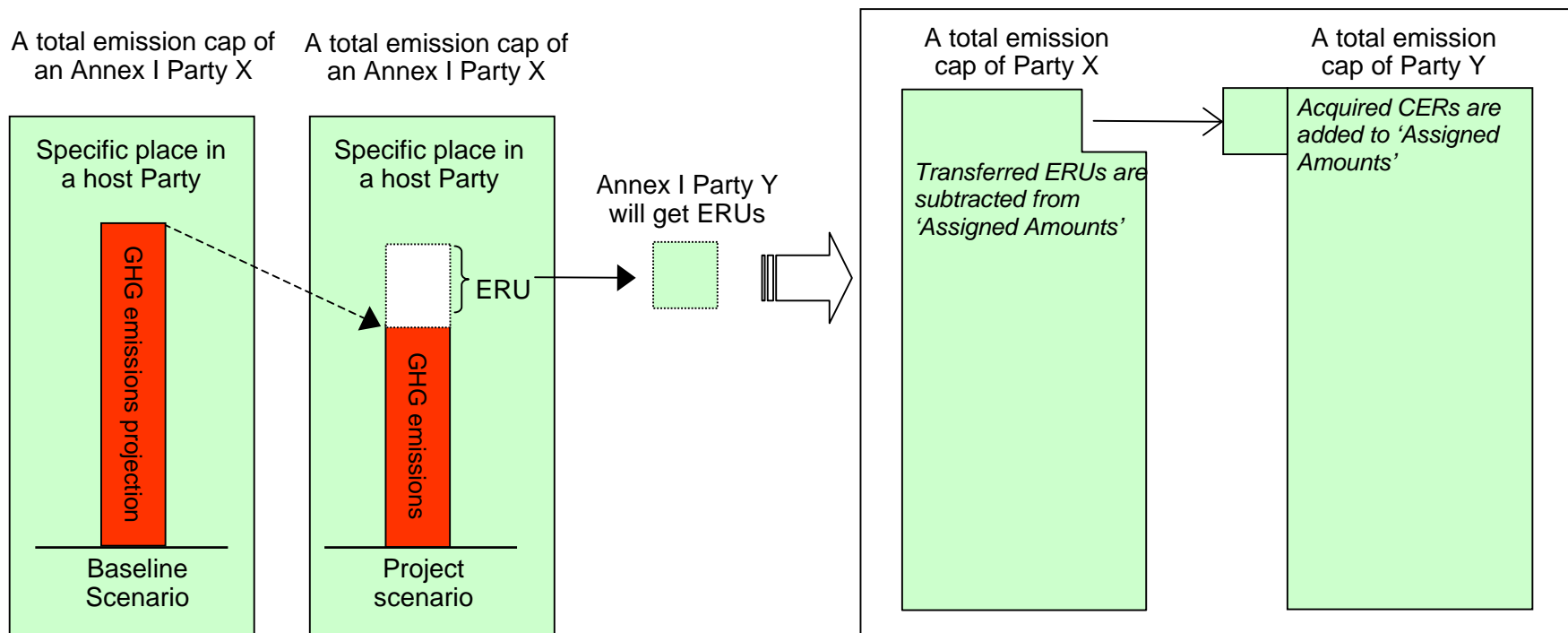
2-1. The Clean Development Mechanism (CDM)

- ◆ Annex I Parties which have 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). [CDM M&P para1(b),p26]
 - ☞ 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 total amount of emission cap of Annex I Parties will increase.
- ◆ The CDM will issue credits before the 1st commitment period.
 - ☞ CERs issued based on emission reductions during the period from the year 2000 up to 2007 can be used to assist in achieving compliance of Annex I parties in the 1st commitment period. [KP Art.12 para10]



2-2. Joint Implementation (JI)

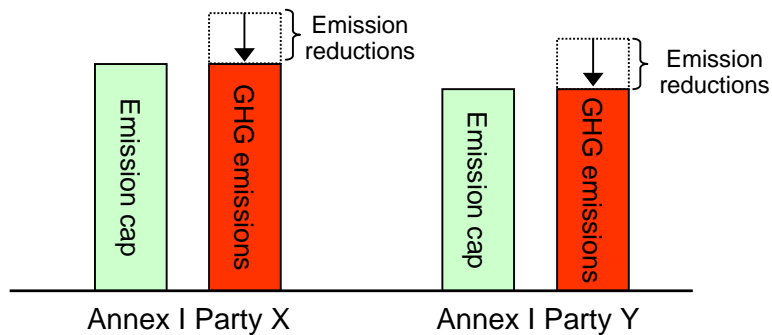
- ◆ Annex I Parties which have emission caps, assist other Annex I Parties to implement project activities to reduce GHG emissions (or remove by sinks), and credits will be issued based on emission reductions (or removals by sinks) achieved by the project activities.
 - ☞ A Party where JI project is implemented, is called a host Party.
 - ☞ The credit from the JI is called emission reduction unit (ERU). [CP/2001/13/Ad2 para1(a),p8]
 - ☞ 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. [CP/2001/13/Ad2 para5,p6]



2-3. Emissions Trading

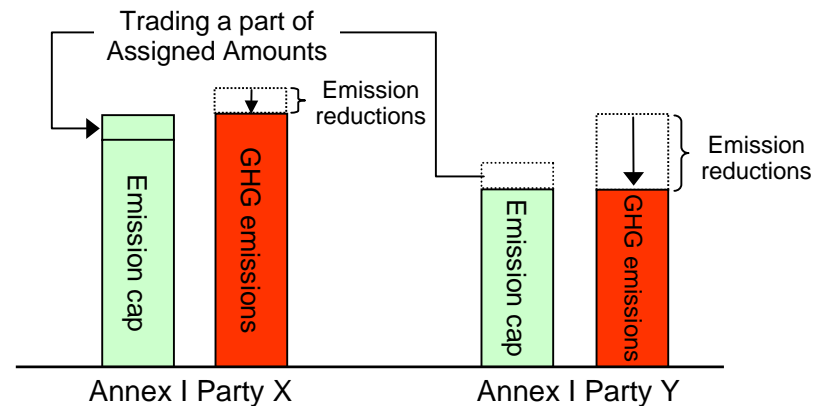
- ◆ Emissions trading is to trade a part of emission cap between Annex I Parties.
 - ☞ The total amount of emission cap of Annex I Parties will not change.
 - ☞ Only Annex B Parties of the Kyoto Protocol can participate emissions trading.
- ◆ Through market mechanism, emissions trading can decrease total cost of Annex I Parties to achieve their collective emission reduction targets.

Without emissions trading



	A	B	Total
Before ET: Emission cap	10	8	18
Trading a part of the cap	-	-	-
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 emissions trading



	A	B	Total
Before ET: Emission cap	10	8	18
Trading a part of the cap	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 part of its emission cap to Party X at \$150.

◆ Annex I Parties can trade following types of Kyoto Protocol units.

☞ **Assigned amount unit (AAU)** [CP/2001/13/Ad2 para1(c),p52]

⇒ Total amount of AAUs of an Annex I Party is calculated from its base year emissions and emission reduction target

☞ **Removal unit (RMU)** [CP/2001/13/Ad2 para1(d),p52]

⇒ Total amount of RMU of an Annex I Party is calculated from net removal of GHGs by afforestation and reforestation (A/R) activities [CP/2001/13/Ad1 para1(a)-(d),p58] and additional activities related to GHG removals by sinks [CP/2001/13/Ad1 para1(e)-(h),p58]

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

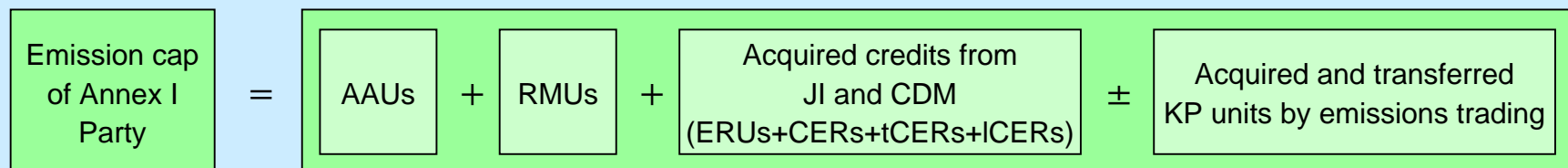
☞ **Certified emission reduction (CER)** from the CDM

☞ **Temporary CER (tCER)** and **long-term CER (ICER)**

⇒ tCER and ICER are issued from A/R project activities under the CDM. [CP/2003/6/Ad2 para1(g)-(h),p16]

◆ Minimum trading unit is 1t-CO₂ equivalent.

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



BOX: Carry-over

If an emission cap of an Annex I Party at the end of additional period (see p67) is more than its GHG emissions during the 1st commitment period, the surplus can be carried over to the subsequent commitment period.

[CP/2001/13/Ad2 para15,p61][CP/2001/13/Ad2 para36,p64]

☞ The end of additional period is the 100th day after the date set by the COP/MOP. [CP/2001/13/Ad3 XIII,p74]

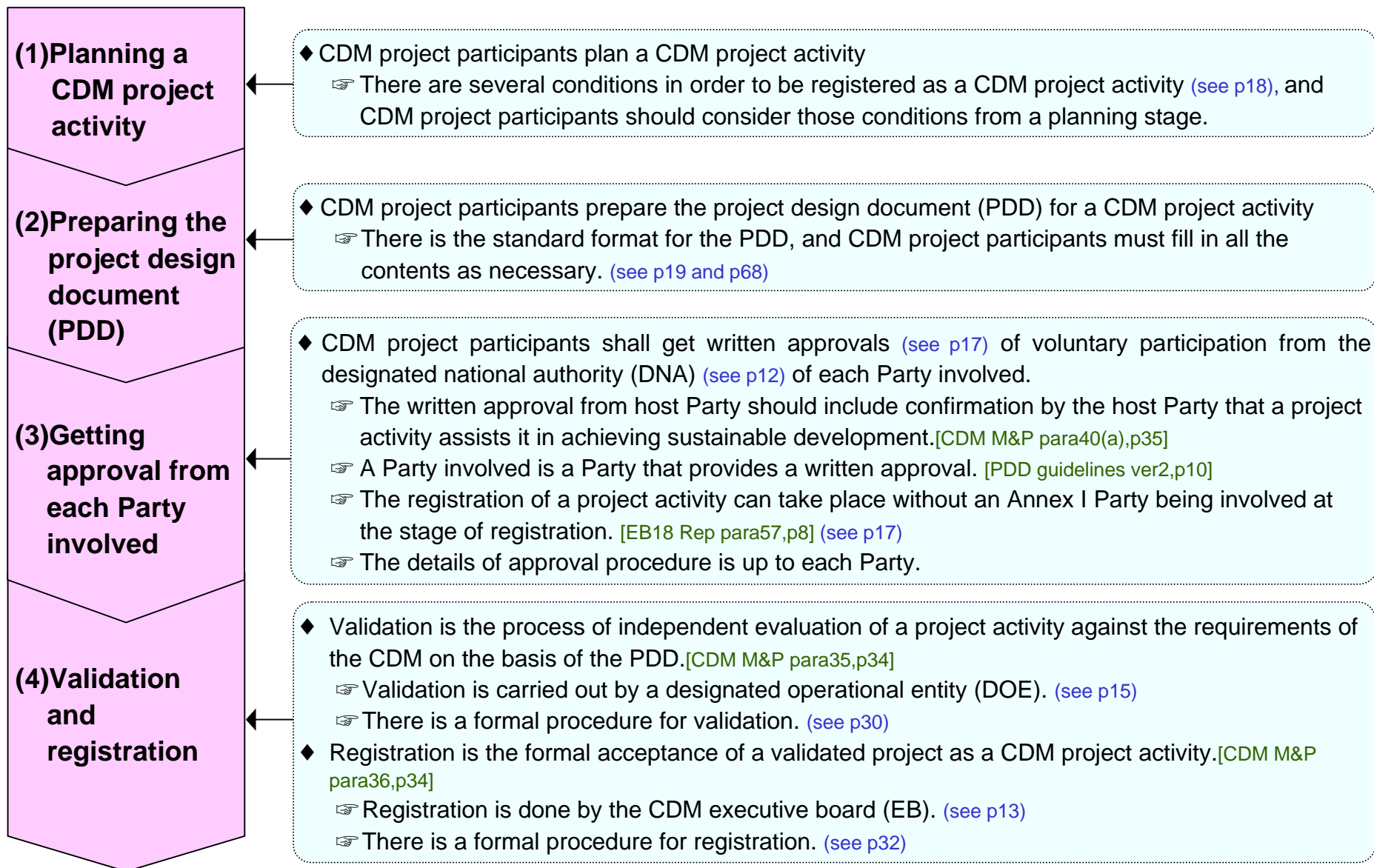
☞ There are several restrictions depending on the type of KP units. (see p60)

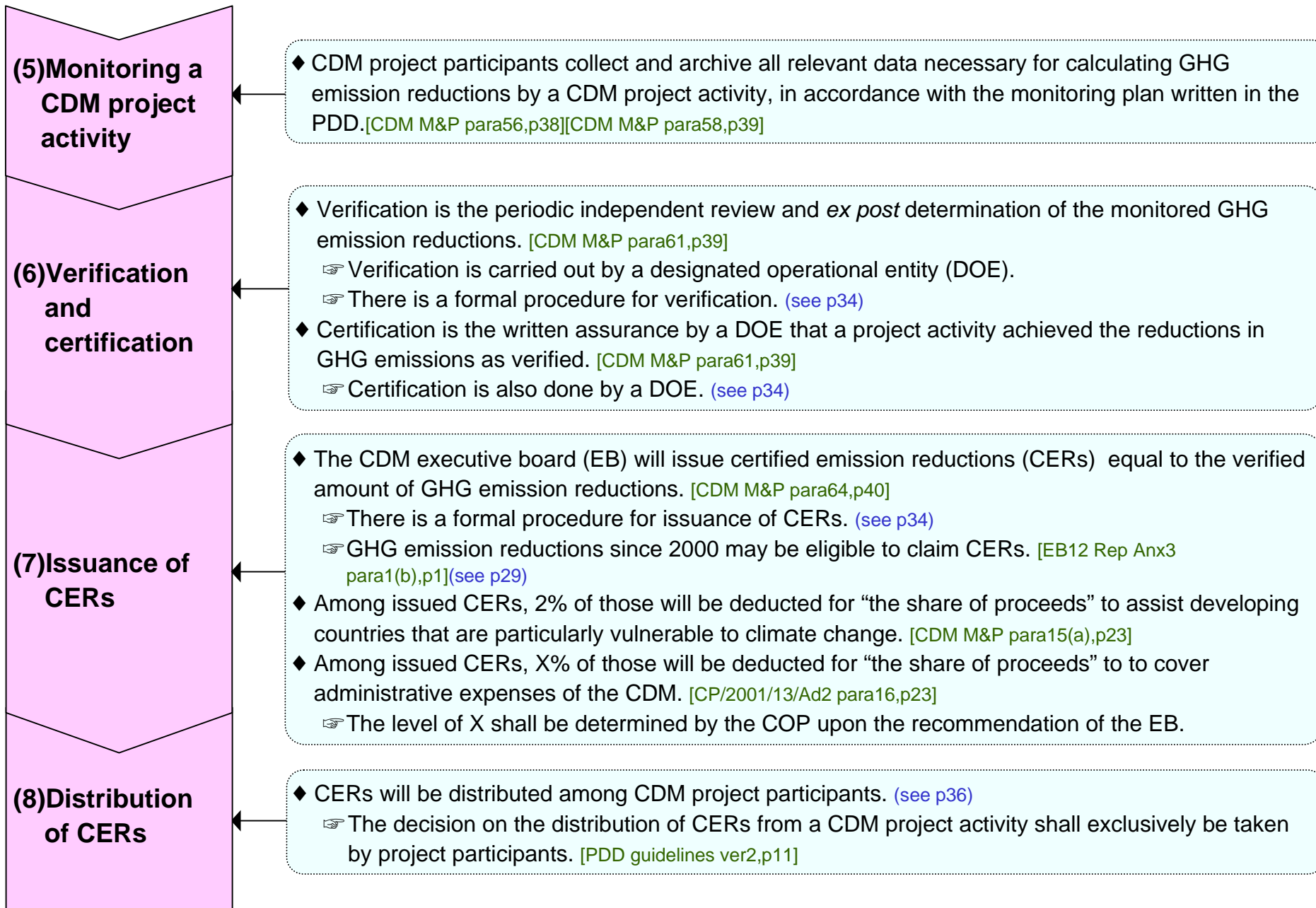
BOX: tCER and ICER

“tCER and ICER” will expire in the end in order to address non-permanence of an A/R project activity under the CDM. (see p43)

3. CDM project cycle

Sections 3 to 11 describe normal-scale emission reduction CDM project activity. For small-scale emission reduction CDM project activity, see page 37. For afforestation and reforestation CDM (A/R CDM) project activity, see page 41.





4. CDM-related organizations

4-1. COP/MOP

- ◆ The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP) [CDM M&P para2-4,p26] :
 - ☞ 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.
- ◆ The COP (to the UNFCCC) shall assume the responsibilities of the COP/MOP before the entry into force of the Kyoto Protocol. [CP/2001/13/Ad2 para2,p21]

4-2. Designated National Authority (DNA)

- ◆ Parties participating in the CDM shall set up a designated national authority (DNA) for the CDM. [CDM M&P para29,p32]
- ◆ CDM project participants 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. [CDM M&P para40(a),p35]
 - ☞ 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 [CDM M&P para5,p27], 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 (see p24) 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. This responsibility includes:
 - ⇒ Decisions on re-accreditation, suspension and withdrawal of accreditation;
 - ⇒ Operationalization of accreditation procedures and standards;
 - ☞ 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 (see p63);
 - ☞ Elaborate and recommend to the COP/MOP for adoption at its next session procedures for conducting the reviews for the registration and Issuance of CERs;
 - ⇒ Until their adoption by the COP/MOP, the procedures shall be applied provisionally.
 - ☞ Formally accept a validated project as a CDM project activity (registration); [CDM M&P para36,p34]
 - ☞ Instruct to issue CERs for a CDM project activity to the CDM registry administrator; [CDM M&P para66,p40]
 - ☞ Etc.
- ◆ Activities of the EB, and approved rules, procedures, methodologies and standards related to the CDM can be downloaded from [<http://cdm.unfccc.int/>](http://cdm.unfccc.int/).

Members of the EB [CDM M&P para7-12,p28]

- ☞ 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.
 - ⇒ 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.
- ☞ After the entry into force of the KP, any member of the EB whose country has not ratified the KP shall be replaced. [CP/2001/13/Ad2 para 3(b),p21]

Meeting and decision of the EB [CDM M&P para13-16,p30]

- ☞ 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. [CP/2001/13/Ad2para18,p30]
- ◆ 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 Meth Panel shall:
 - ☞ Prepare recommendations on submitted proposals for new baseline and monitoring methodologies (NMs);
 - ☞ Prepare draft reformatted versions of proposed NMs approved by the EB;
 - ☞ Elaborate recommendations for consideration and adoption by the EB, as appropriate, on, *inter alia*:
 - ⇒ Revisions to the PDD, in particular on sections relevant to baseline and monitoring;
 - ⇒ Draft decision trees and other methodological tools;
 - ⇒ Amendments on the annex on indicative simplified methodologies for CDM small-scale project activities.
 - ☞ 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 10 members. [EB13 Rep Anx1]

AR working group (AR-WG)
(Working group on afforestation and reforestation project activities)

- ◆ The AR-WG shall:
 - ☞ Prepare recommendations on submitted proposals for new baseline and monitoring methodologies for A/R CDM project activities;
 - ☞ Prepare draft reformatted versions of proposed NMs for A/R CDM project activities approved by the EB;
 - ☞ Elaborate precise and workable recommendations for consideration and adoption by the EB, as appropriate, on, *inter alia*:
 - ⇒ Development and revisions of the PDD for A/R CDM project activities, in particular on those sections relevant to baseline and monitoring.
 - ☞ Etc.
- ◆ 2 members or alternate members of the EB will act as Chair and vice Chair of the WG, respectively. In addition to the designated EB members, the panel shall be composed of 5 members. [EB14 Rep Anx8]

SSC panel
(Panel to recommend draft simplified modalities and procedures for small-scale CDM project activities)

- ◆ The SSC panel shall elaborate recommendations for draft simplified modalities and procedures for small-scale CDM project activities for consideration by the EB. [TOR for SSC panel approved by the EB on 22 March 2002]
- ☞ The panel completed its tasks and finished its activity.

SSC WG
(Working group to assist the EB in reviewing proposed methodologies and project categories for small-scale CDM project activities)

- ◆ The SSC WG shall prepare recommendations for consideration and adoption by the EB on submitted proposals for new small-scale project activity categories and new simplified baseline and monitoring plans and etc. [EB15 Rep Anx11]

CDM-AP
(CDM accreditation panel)

- ◆ The CDM-AP shall make recommendations to the EB regarding:
 - ☞ The accreditation of an applicant OE;
 - ☞ The suspension of accreditation of a DOE;
 - ☞ The withdrawal of accreditation of a DOE;
 - ☞ The re-accreditation of a DOE.
- ◆ The CDM-AP also carries out selecting the members of a CDM accreditation assessment team (CDM-AT) and etc.
- ◆ 2 members or alternate 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 5 members. [EB03 Rep Anx1]

CDM-AT
(CDM accreditation assessment team)

- ◆ The CDM-AT shall undertake an assessment of the applicant and/or designated OEs 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 Rep Anx1]

4-5. Designated Operational Entity (DOE)

- ◆ A designated operational entity (DOE) [CDM M&P para27,p31] shall:
 - ☞ Perform validation or verification and certification related to a given CDM project activity;
 - ⇒ Upon request, the EB may allow a single DOE to perform all these functions within a single CDM project activity.
 - ⇒ A DOE shall demonstrate that it and its subcontractors have no real or potential conflict of interest with the participants in the CDM project activities for which it has been selected to carry out validation or verification and certification functions.
 - ⇒ If it is part of a larger organization, and where parts of that organization are, or may become, involved in any CDM project activity, the applicant operational entity shall demonstrate that no conflict of interest exists between its functions as an operational entity and any other functions that it may have, and demonstrate how business is managed to minimize any identified risk to impartiality. [CP/2001/13/Ad2 para2(a)(ii),p42]
 - ☞ Maintain a publicly available list of all CDM project activities for which it has carried out validation, verification and certification;
 - ☞ Submit an annual activity report to the executive board;
 - ☞ Make information obtained from CDM project participants publicly available, as required by the EB.
 - ⇒ Information 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 (see p20), to describe the baseline methodology (see p24) and its application, and to support an environmental impact assessment (see p73), shall not be considered as proprietary or confidential.

- ◆ The DOEs shall be accredited by the EB and be designated by the COP/MOP. [CDM M&P para3(c),p27]
- ◆ There are standards for the accreditation of OE [CP/2001/13/Ad2 para1,p41]. For example, an OE shall:
 - ☞ Be a legal entity (either a domestic legal entity or an international organization);
 - ☞ Employ a sufficient number of persons, and have the financial stability and a management structure to have the necessary competence to perform its functions;
 - ☞ Have, or have access to, the necessary expertise to carry out the functions specified in modalities and procedures of the CDM and relevant decisions by the COP/MOP;
 - ☞ Work in a credible, independent, non-discriminatory and transparent manner; [CP/2001/13/Ad2 para2(a),p42]
 - ☞ Etc.

- ☞ A publicly available list of all DOEs is maintained by the EB <<http://cdm.unfccc.int/DOE/list>>. [CDM M&P para20(c),p30]
- ☞ DOEs are reviewed by the EB whether they continues to comply with the accreditation standards, and on this basis be confirmed whether to be reaccredited every 3 years. [CDM M&P para20(d),p30]
- ☞ There is a formal procedure for accreditation of OEs.

Suspension or withdrawal of a DOE [CDM M&P para21,p31]

- ◆ 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 [CDM M&P para22-24,p31]

- ☞ Registered project activities shall not be affected by the suspension or withdrawal of designation of a DOE unless significant deficiencies are identified in the relevant validation, verification or certification report for which the entity was responsible.
 - ⇒ There is no clear definition of “significant deficiencies.”
- ☞ In this case, the EB shall decide whether a different DOE shall be appointed to review, and where appropriate correct, such deficiencies.
 - ⇒ Any costs related to the review shall be borne by the DOE whose designation has been withdrawn or suspended.
- ☞ If such a review reveals that excess CERs were issued, the DOE whose accreditation has been withdrawn or suspended shall acquire and transfer, within 30 days of the end of review, an amount of reduced tonnes of CO₂ equivalent equal to the excess CERs issued, as determined by the EB, to a cancellation account in the CDM registry (see p63).
- ☞ Any suspension or withdrawal of a DOE that adversely affects registered project activities shall be recommended by the EB only after the affected project participants have had the possibility of a hearing.

4-6. Project participants

- ◆ Participation in a CDM project activity is voluntary. [CDM M&P para28,p32]
- ◆ A project participant 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. [PDD guidelines ver2,p10]

A Party

- ☞ Parties participating in the CDM shall designate a national authority (DNA) for the CDM. [CDM M&P para29,p32]
- ☞ A non-Annex I Party may participate in a CDM project activity if it is a Party to the Kyoto Protocol. [CDM M&P para30,p32]

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. [CDM M&P para33,p33]
- ☞ 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. [PDD guidelines ver2,p5]

A change of project participants

[PDD guidelines ver2,p11]

- ☞ A change of project participants shall immediately be communicated to the EB through the secretariat.
- ☞ The indication of change shall be signed by all project participants of the previous communication and by all new and remaining project participants.
- ☞ Each new project participant needs authorization, as required.

Participation by a fund [PDD guidelines ver2,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.

Approval by Parties involved [PDD guidelines ver2,p5]

- ◆ 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.
- ◆ 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(see p63), 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(see p61). [EB18 Rep para57,p8]

5. Conditions for CDM projects

◆ When planning a CDM project activity, it is necessary to keep in mind following points:

- ☞ The CDM shall assist non-Annex I Parties in achieving sustainable development; [CP/2001/13/Ad2,p20]
 - ⇒ 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; [CDM M&P para43,p36] (see p20)
- ☞ 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 para7(a),p22] (see p41)
- ☞ 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. [PDD guidelines ver2,p16]

BOX: Registration fee of the CDM project activity [EB6 Rep Anx5]

- ☞ CDM project participants shall pay registration fee at registration stage.
 - ⇒ Fee level depends on the estimated or approved average annual emissions reductions (tonnes of CO₂ equivalent) to be realized over the crediting period.

Reductions per year	US\$
<= 15,000	5,000
> 15,000 and <= 50,000	10,000
> 50,000 and <= 100,000	15,000
> 100,000 and <= 200,000	20,000
> 200,000	30,000

- ⇒ 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 Rep Anx6]

- ☞ The registration fee paid will be deducted from the share of proceeds (see p36) for administration due at issuance of CERs.

BOX: Revision of the modalities and procedures for the CDM [CP/2001/13/Ad2 para19,p23][CP/2001/13/Ad2 para4,p25]

- ☞ 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

The project design document (CDM-PDD)

- ◆ It is necessary to prepare a project design document (PDD) in order to be registered as a CDM project activity. The PDD shall include following items. [CP/2001/13/Ad2 para2,p43]
 - ☞ A description of the project; (see p69)
 - ☞ A proposed baseline methodology; (see p70)
 - ☞ Statement of the estimated operational lifetime of the project and which crediting period was selected; (see p70)
 - ☞ Description of how the GHG emissions are reduced below those that would have occurred in the absence of the registered CDM project activity; (see p70)
 - ☞ Environmental impacts; (see p73)
 - ☞ Information on sources of public funding for the project activity from Annex I Parties; (see p74)
 - ☞ Stakeholder comments; (see p74)
 - ☞ Monitoring plan; (see p72)
 - ☞ Description of formulae used to calculate and estimate the emission reductions of the CDM project activity; (see p73)
 - ☞ References to support the above, if any.

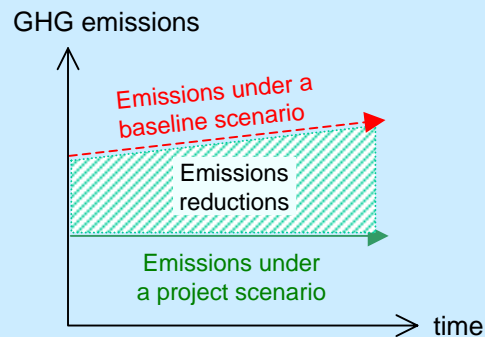
BOX: Information note for PDD [PDD guidelines ver2,p13]

- ☞ The 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 as required under the Kyoto Protocol.
- ☞ The PDD contains information on the project activity, the approved baseline methodology applied to the project activity, and the approved monitoring methodology (see p73) applied to the project. It discusses and justifies the choice of baseline methodology and the applied monitoring concept, including monitoring data and calculation methods.
- ☞ Project participants should submit the completed version of the PDD, together with attachments if necessary, to an accredited DOE for validation. The DOE then examines the adequacy of the information provided in the PDD, especially whether it satisfies the relevant modalities and procedures concerning CDM project activities. Based on this examination, the DOE makes a decision regarding validation (see p31) of the project.

6. Baseline

6-1. Concept of the baseline

- ◆ The baseline for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity. [CDM M&P para44,p36]
 - ☞ A baseline shall cover emissions from all gases, sectors and source categories listed in Annex A of the Kyoto Protocol within the project boundary.
- ◆ The baseline may include a scenario where future GHG emissions are projected to rise above current levels, due to the specific circumstances of the host Party. [CDM M&P para46,p37]
- ◆ The baseline shall be defined in a way that CERs cannot be earned for decreases in activity levels outside the project activity or due to force majeure. [CDM M&P para47,p37]



- ◆ A baseline shall be established: [CDM M&P para45,p36]
 - (a) By project participants in accordance with provisions for the use of approved and new methodologies;
 - ⇒ If a DOE determines that a proposed project activity intends to use a new baseline or monitoring methodology, it shall, prior to the submission for registration of this project activity, forward the proposed methodology to the EB for review (see p27). [PDD guidelines ver2,p6]
 - (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;
 - ⇒ “Transparent and conservative manner” means assumptions are explicitly explained and choices are substantiated. In case of uncertainty regarding values of variables and parameters, the establishment of a baseline is considered conservative if the resulting projection of the baseline does not lead to an overestimation of emission reductions attributable to the CDM project activity (that is, in the case of doubt, values that generate a lower baseline projection shall be used). [EB05 Rep Anx3 para10(a),p2]
 - (c) On a project-specific basis;
 - (d) In the case of small-scale CDM project activities (see p37), 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. (see p22)

6-2. Baseline scenario

- ◆ The baseline for a CDM project activity is the scenario that reasonably represents GHG emissions that would occur in the absence of the proposed project activity.
- ◆ 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 project participants shall take into account national / sectoral policies and circumstances (see p22), ongoing technological improvements, investment barriers, etc.

[PDD guidelines ver2,p7]

- ☞ As part of the basis for determining the baseline scenario an explanation shall be made of how, through the use of the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario.
- ☞ Examples of tools that may be used to demonstrate that a project activity is additional and therefore not the baseline scenario include, among others: [EB10 Rep Anx1 para1-2]

(a) A flow-chart or series of questions that lead to a narrowing of potential baseline options; and/or

(b) A qualitative or quantitative assessment of different potential options and an indication of why the non-project option is more likely; and/or

(c) A qualitative or quantitative assessment of one or more barriers facing the proposed project activity (such as those laid out for small-scale CDM projects); and/or

(d) An indication that the project type is not common practice (e.g. occurs in less than x% of similar cases) in the proposed area of implementation, and not required by a Party's legislation/regulations.

Clarifications on the treatment of national and/or sectoral policies and regulations in determining a baseline scenario (see p21)

[EB16 Rep Anx3]

- ◆ The EB agreed to differentiate ways to address the following 4 types of national and/or sectoral policies in determining a baseline scenario:

Type E+

Existing policies or regulations which give comparative advantages to more emissions-intensive technologies or fuels

- ☞ Only “Type E+” 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 “Type E+” policies or regulations were implemented since the adoption of the Kyoto Protocol, the baseline scenario should refer to a hypothetical situation without the policies or regulations being in place.

Type E-

Policies or regulations that give positive comparative advantages to less emissions-intensive technologies
 ☞ e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programs.

- ☞ “Type E-” policies or regulations that have been implemented since the adoption of the CDM M&P (11 November 2001) may not be taken into account in developing a baseline scenario.
 ⇒ i.e. the baseline scenario should refer to a hypothetical situation without the policies or regulations being in place.

Type L+

Sectoral mandatory regulations that aim the reduction of negative local environmental externalities and which incidentally prevent the adoption/diffusion of less GHG emitting technology.

Type L-

Sectoral mandatory regulations that aim the reduction of negative local environmental externalities and/or energy conservation and which would incidentally also reduce GHG emissions.

- ☞ The EB noted that the Meth Panel is to continue to consider possible additional recommendations regarding national and/or sectoral policies or regulations of types L- and L+.

6-3. Baseline approach (para 48 of CDM M&P)

- ◆ In choosing a baseline methodology for a project activity, project participants shall select from among the following approaches the one deemed most appropriate for the project activity, and justify the appropriateness of their choice: [CDM M&P para48,p37]

(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.

- ☞ 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 Rep Anx1 para4]

BOX: Additional guidance on the approach contained in paragraph 48 (c) of CDM M&P [EB08 Rep Anx1 para4-5]

- ☞ Project participants wishing to select this approach shall elaborate in their submission of a proposed new baseline methodology, inter alia, on:
- How they determine “similar social, economic, environmental and technological circumstances”, and
 - How they assess the “performance among the top 20 per cent of their category” defined as GHG emissions performance (in terms of CO₂equ emissions per unit of output).
- ☞ Project participants wishing to use this approach and a related approved methodology shall assess the applicability and use the most conservative of the following options:
- The output-weighted average emissions of the top 20 per cent of similar project activities undertaken in the previous 5 years in similar circumstances;
 - The output-weighted average emissions of similar project activities undertaken in the previous 5 years under similar circumstances that are also in the top 20 per cent of all current operating projects in their category (i.e. in similar circumstances as defined above).

6-4. Baseline methodology

- ◆ A methodology is an application of an approach as defined in paragraph 48 of the CDM M&P, to an individual project activity, reflecting aspects such as sector and region.
- ◆ No methodology is excluded a priori so that project participants have the opportunity to propose a methodology. In considering paragraph 48, the EB agreed that, in the 2 cases below, the following applies: [PDD guidelines ver2,p6]

(a) Case of a new methodology:
In developing a baseline methodology, the 1st step is to identify the most appropriate approach for the project activity and then an applicable methodology.

(b) Case of an approved methodology:
In opting for an approved methodology, project participants have implicitly chosen an approach.

BOX: Proposed project activities applying more than one methodology [EB08 Rep Anx1 para6,p2]

- ☞ If a proposed CDM project activity comprises different “sub-activities” requiring different methodologies, project participants may forward the proposal using one CDM-PDD but shall complete the methodologies sections (sections A.4.2, A.4.3, A.4.4. and B to E of the CDM-PDD (see p69)) for each “sub-activity”.

BOX: Decrease in activity levels [EB08 Rep Anx1 para7-9,p2]

- ☞ Para 47 of CDM M&P stipulates that “the baseline shall be defined in a way that CERs cannot be earned for decreases in activity levels outside the project activity or due to force majeure”.
- ☞ An output- or product-linked definition of baseline values (i.e. CO₂equ. per unit of output) shall be applied, unless the project participants can demonstrate why this is not applicable and provide an appropriate alternative.
- ☞ The Meth Panel shall evaluate, on a case-by-case basis, whether a proposed new methodology complies with this provision.

BOX: Clarifications on ex post calculation of baselines [EB10 Rep Anx1 para6]

- ☞ The ex post calculation of baseline emission rates may only be used if proper justification is provided. Notwithstanding, the baseline emission rates shall also be calculated ex-ante and reported in the draft CDM-PDD (see p69) in order to satisfy the requirements for identification of the elements of a baseline methodology.

BOX: Guidance regarding the treatment of “existing” and “newly built” facilities [EB08 Rep Anx1 para10,p2]

- ☞ 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.

6-5. Clarification for drafting a proposal for a new methodology [EB09 Rep Anx3 para1-7]

Decision tree

☞ When drafting a proposed new baseline methodology, project participants shall follow the following steps:

- (a) Choose and justify why one of the approaches listed in para 48 of CDM M&P is considered to be the most appropriate.
- (b) Elaborate a proposal for a new methodology which, in accordance with earlier guidance provided by the EB (see guidance by the EB at its 5th meeting), is to be an application of the selected approach to a project activity, reflecting aspects such as sector, technology, region. The EB agreed that no methodology is to be excluded a priori so that project participants have the opportunity to propose any methodology which they consider appropriate. The project participant shall take into account guidance by the EB on aspects to be covered by a methodology (Annex 1 to EB report of its 8th meeting).
- (c) Describe the proposed new methodology in the CDM-NMB and the CDM-NMM taking into account guidance given by the EB at its 5th and 8th meeting as well as the information provided in the CDM PDD Glossary of Terms.
- (d) Demonstrate the applicability of the proposed methodology, and, implicitly, that of the approach, to a project activity by providing relevant information in a draft CDM-PDD.

Baseline and additionality

- ☞ A proposed new methodology shall explain how a project activity using the methodology can demonstrate that it is additional i.e. different from the baseline scenario.
- ☞ Project participants shall therefore describe how to develop the baseline scenario and “how the baseline methodology addresses the determination of project additionality.”
- ☞ In addition, the methodology shall provide elements to calculate the emissions of the baseline.
- ☞ The project participants shall ensure consistency between the elaboration of the baseline scenario and the procedure and formulae to calculate the emissions of the baseline.

- ◆ When proposing a new baseline methodology, the following information elements shall be covered and reported through the CDM-NMB: [EB08 Rep Anx1 para1-2]
 - (a) Basis for determining the baseline scenario:
 - ⇒ Explanation of how the baseline is chosen, taking into account relevant national and/or sectoral policies and circumstances;
 - ⇒ Underlying rationale for algorithm/formulae (e.g. marginal vs. average, etc.);
 - ⇒ Explanation of how, through the methodology, it is demonstrated that a project activity is additional and therefore not the baseline scenario (section B4 of the CDM-PDD).
 - (b) Formulae/algorithms shall specify:
 - ⇒ Type of variables used (e.g. fuel(s) used, fuel consumption rates, etc.);
 - ⇒ Spatial level of data (local, regional, national, etc.);
 - ⇒ Project boundary (gases and sources included, physical delineation);
 - ⇒ Vintage of data (relative to project crediting period)
 - (c) Data sources and assumptions:
 - ⇒ Where the data are obtained (official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature, etc.);
 - ⇒ Assumptions used.
- ◆ Project participants selecting an approved baseline methodology shall ensure that elements described in subparagraphs (a) to (c) above apply to their proposed project activity.

6-5. Clarification for drafting a proposal for a new methodology

[EB09 Rep Anx3 para3-7]

Drafting quality

- ☞ Proposals should be written in a concise and clear manner.
- ☞ Important procedures and concepts should be supported by equations and diagrams. Non-essential information should be avoided.
- ☞ The CDM-NMB and the CDM-NMM shall not contain information which is related to the application of the proposed new methodology to the project activity for illustrative purposes.
- ☞ Project participants shall refrain from providing glossaries or using key terminology not used in the COP documents and the CDM glossary (environmental/investment additionality), and from rewriting the CDM-PDD instructions.

Avoid repetitions

- ☞ Not unnecessarily repeat in the main CDM-PDD Sections A-E, submitted as a demonstration of the application of the proposed new methodology, text and methodological explanations already provided in the Annexes. The CDM-PDD Sections A-E are meant to provide information on the application of the methodology(ies) to the project activity.

Provide complete the CDM-NMB and the CDM-NMM

- ☞ All algorithms, formulae, and step-by-step procedures for applying the methodology shall be included here.
- ☞ These Annexes shall provide stand-alone replicable methodologies, and avoid reference to any secondary documents if they wish to convey essential information, except where considered absolutely necessary (e.g. model documentation).

Data requirements and sources

- ☞ Clearly specify data requirements and sources, as well as procedures to be followed if expected data are unavailable.
- ☞ For instance, the methodology could point to a preferred data source (e.g. national statistics for the past 5 years), and indicate a priority order for use of additional data (e.g. using longer time series) and/or fall back data sources to preferred sources (e.g. private, international statistics, etc.).
- ☞ Use International System Units (SI units – refer to http://www.bipm.fr/enus/3_SI/si.html).

Titles

- ☞ Provide an unambiguous title for a proposed methodology. Avoid project-specific titles.
- ☞ The title, once approved, should allow project participants to get an indication of the applicability of an approved methodology.

BOX: Link between baseline and monitoring methodologies [EB10 Rep Anx1 para7,p2]

- ☞ A strong link between baseline and monitoring methodologies are to be provided. New baseline and monitoring methodologies shall be proposed and approved together.
- ☞ If project participants would like to use different combinations of approved baseline and monitoring methodologies, they shall submit a proposal for consideration of the Meth Panel and approval by the EB.

6-6. Procedures for the submission of a proposed new methodology

< <http://cdm.unfccc.int/Reference/Procedures> > [Version 06]

(1) Project participants intend to propose a new baseline or monitoring methodology for approval by the EB, prepare the methodologies forms for baseline and monitoring methodologies (CDM-NMB and CDM-NMM) and a draft PDD and as a minimum, complete sections A to E, including relevant annexes.

(2) The secretariat checks that the "CDM: Proposed new methodology form" (F-CDM-NM) has been duly filled by the DOE and documentation provided by the DOE is complete.

(3) 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. [MP12 Rep Anx1]
 If the grade is 2, the documentation is to be sent back to the project participants.
 If the grade is 1, the documentation is considered as received by the EB, and be forwarded by the secretariat for consideration of the EB and the MP.

The date of receipt of the proposed NM:

if possible at next EB meeting but not later than 4 months

(4) At the same time, the secretariat makes the proposed new methodology (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 ver3)

(5) 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.

(6) 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.

(7) The Chair and the Vice-Chair of the MP select the desk reviewers from a roster of experts, no later than **7 working days** after the receipt of the proposed NM, with the assistance of the 2 MP members and the secretariat.

(8) Each desk reviewer forwards his/her recommendation to the MP, wherever possible, within **10 working days** after having received a proposed NM using the "expert desk review form" (F-CDM-NMex ver3).

(9) The MP may request the project participants additional technical information* within a deadline stipulated by the Chair of MP.

(10) The MP prepares its preliminary recommendation regarding the approval of the proposed NM to the EB using the form "Panel recommendation to the EB" (F-CDM-NMmp ver3).

(11) The MP forwards its preliminary recommendation to project participants.

(12) Within **10 working days** after the receipt of the preliminary recommendation of the MP, the project participants may submit clarifications* to the MP. Technical clarifications provided by the project participants shall include revisions in the CDM-NMB and CDM-NMM in highlighted form.

*Communication will be made through the secretariat, and via the DOE. Information and clarifications provided by the project participants are made available to the EB and to the public soon after they have been received by the secretariat.

(13 a) If project participants do not provide any clarification within the 10-day period, or if the preliminary recommendation by the MP is in favour of approving the proposed NM, it is considered as a final recommendation

(13 b) If project participants provide clarifications related to the preliminary recommendation by the MP, the MP considers these clarifications **at its next meeting** and prepare its final recommendation to the EB.

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

(14) 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 MP makes a recommendation to the EB, **if possible at its next meeting**. A proposed NM shall be available to the MP at least **7 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.

7. Items in the project design document (PDD)

7-1. Project boundary and leakage

Project Boundary

- ◆ The project boundary shall encompass all anthropogenic GHG emissions by sources under the control of the project participants that are significant and reasonably attributable to the CDM project activity. [CDM M&P para52,p37]
 - ☞ 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.” [PDD guidelines ver2,p10]
 - ☞ Pending decisions by the EB on these terms, project participants are invited to explain their interpretation of such terms when completing and submitting the CDM-NMB and CDM-NMM. (see p76 and 78)

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. [CDM M&P para51,p37]
 - ⇒ In an operational context, the terms measurable and attributable should be read as “which can be measured” and “directly attributable”, respectively. [PDD guidelines ver2,p9]
- ☞ Reductions in GHG emissions shall be adjusted for leakage in accordance with the monitoring and verification provisions. [CDM M&P para50,p37]

7-2. Monitoring

- ◆ 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. [PDD guidelines ver2,p9]
- ◆ A monitoring plan for a proposed project activity shall be based on a previously approved monitoring methodology or a new methodology. [CDM M&P para54,p38]
 - ☞ A monitoring methodology refers to the method used by project participants for the collection and archiving of all relevant data necessary for the implementation of the monitoring plan. [PDD guidelines ver2,p9]

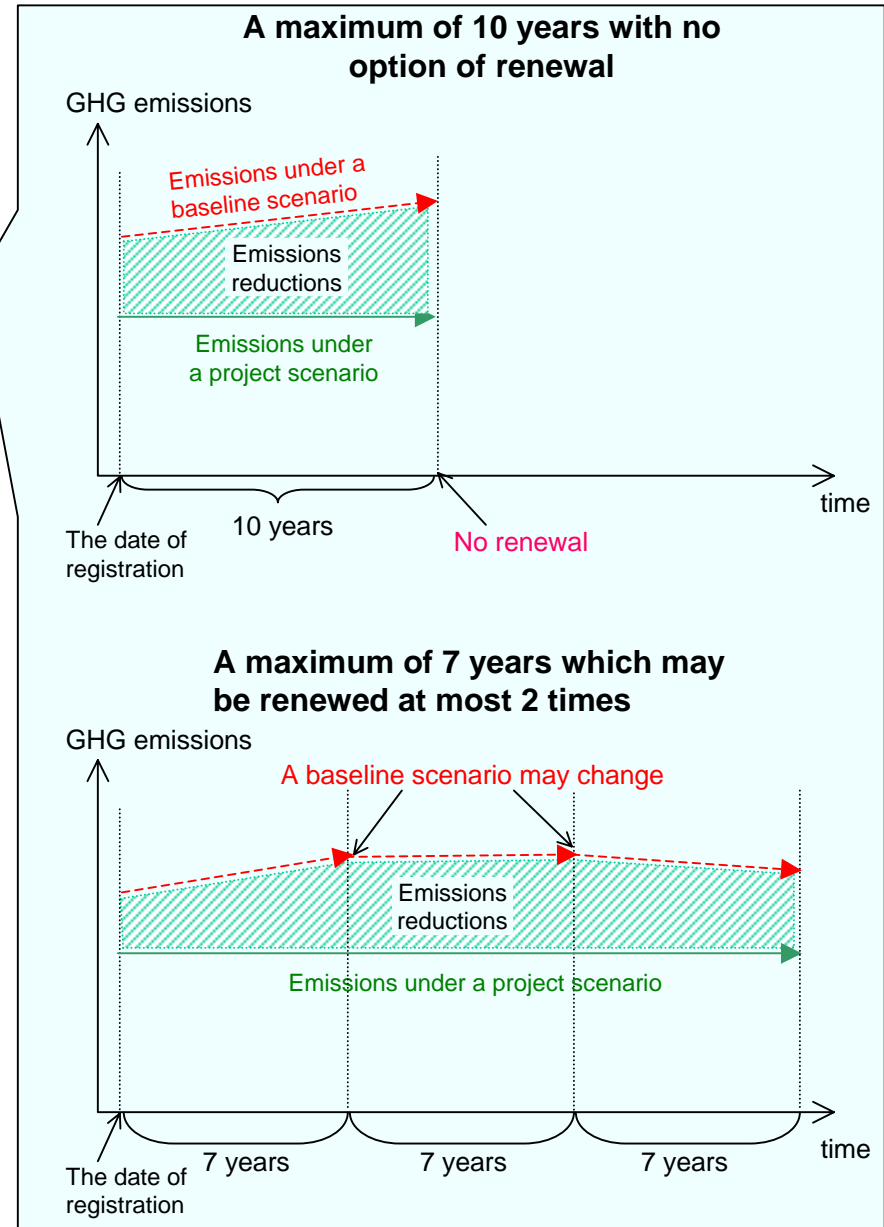
- ☞ A monitoring methodology approved by the EB and made publicly available along with relevant guidance. [PDD guidelines ver2,p9]
- ☞ Project participants may propose a new monitoring methodology. In developing a monitoring methodology, the 1st step is to identify the most appropriate methodology bearing in mind good monitoring practice in relevant sectors.
- ☞ Project participants shall submit a proposal for a new methodology to a DOE by forwarding a completed “Proposed New Methodology: Baseline (CDM-NMB)” along with a completed “Proposed New Methodology: Monitoring (CDM-NMM)” and the CDM-PDD with sections A to E completed in order to demonstrate the application of the proposed new methodology to a proposed project activity.
 - ⇒ Procedures for the submission of a proposed new monitoring methodology is same as that of new baseline methodology.

7-3. 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 para12,p23]
- ◆ Project participants select a crediting period for a proposed project activity from one of the following alternative approaches [CDM M&P para49,p37] :
 - ☞ 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.

Retroactivity of a crediting period

- ☞ A project activity starting between 1 January 2000 and the date of the 1st registration of a CDM project activity (18 Nov. 2004) may use a crediting period starting before the date of its registration. [CP/2001/13/Ad2 para13,p23] [CP/2003/6/Ad2 para1(c),p5]
 - ⇒ Only if the project activity is submitted for registration before 31 December 2005.
- ☞ 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. [PDD guidelines ver2,p11]
 - ⇒ Project activities starting between 1 January 2000 and the date of the registration of a 1st CDM project have to provide documentation, at the time of registration, showing that the starting date fell within this period, if the project activity is submitted for registration before 31 December 2005.



8. Validation of a CDM project activity

<<http://cdm.unfccc.int/Reference/Procedures>>[Version 3 / Nov 2003]

8-1. Overview of validation procedures

CDM project participants

(1) Select a DOE for validation from a list of DOEs and contract with them. [CDM M&P para37,p34]

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

Designated operational entity (DOE)

(3) Review the PDD to confirm that the requirements for the CDM have been met. (see p31)[CDM M&P para37,p34]

(4) Make publicly available the PDD in PDF format, either on a web site with a link to the UNFCCC CDM web site or directly on the UNFCCC CDM web site.

Notify the secretariat **10 days** before the PDD is to be made public. The notification shall specify:

- (a) The address of the web page where the PDD will be found or whether it wishes to post the PDD directly on the UNFCCC CDM web site
- (b) The name of the proposed CDM project activity
- (c) The opening and closing date of comments on the validation requirements.

(7) Receive comments from Parties, stakeholders and accredited NGOs within **30 days**. [CDM M&P para40(c),p35] The DOE promptly acknowledges receipt of comments.

(8) Specify how comments on a PDD are communicated, providing both e-mail and fax details. Display at the end of the **30 days** period all comments received.

(9) Make a determination whether the project activity should be validated. [CDM M&P para40(d),p35]

No Yes

Inform project participants of reasons for non-acceptance

(10) Inform project participants of confirmation of validation. [CDM-M&P para40(e),p35]

Registration Procedure

UNFCCC secretariat

(5) Post on the UNFCCC CDM web site a link to the web page of the DOE or post the CDM PDD on its web site, and make an announcement on the UNFCCC CDM web site and in the CDM news facility about the public availability of the PDD.

(6) Promptly inform the DOE when the announcement has been made.

May be reconsidered for validation and subsequent registration, after appropriate revisions. [CDM M&P para42,p36]

8-2. Validation requirements

- ◆ The DOE selected by project participants 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. [CDM M&P para37,p34]
 - ☞ 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;
 - ☞ Project participants 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 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

- ◆ The DOE shall: [CDM M&P para40,p35]
 - ☞ Prior to the submission of the validation report to the EB, have received from the project participants 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 (see p15) 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 executive board.

9. Registration of a CDM project activity

9-1. Overview of registration procedures

[CP/2003/6/Ad2 Anx2,p9][EB14 Rep Anx7]

Designated operational entity (DOE)

UNFCCC secretariat

CDM executive board (EB)

(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.

F-CDM-REG can be downloaded from <<http://cdm.unfccc.int/Reference/Forms/Registration>>

(2) Submit all required documents using the electronic, internet-based, submission tool provided by the secretariat to each DOE.

(3) Provide, automatically, a unique reference number which is used to identify the bank transfer of the non-reimbursable registration fee. (see p18)

(4) Submit the proof of payment which shall indicate the unique reference number, using the submission tool.

(5) Upon receipt of the non-reimbursable registration fee, the secretariat immediately informs the DOE.

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

(7) After the non-reimbursable 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 through the UNFCCC CDM web site for a period of **8 weeks**.

(10) Marked in the UNFCCC 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. (see p15)

(8) 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 (see p33) within **8 weeks** after the date of receipt of the request for registration. [CDM M&P para41,p36]

No Yes

(9) Registration as CDM project activity.

Can be registered

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 project participants and the public.

Not registered

May be reconsidered for validation and subsequent registration, after appropriate revisions. [CDM M&P para42,p36]

9-2. Procedures for review of registration [EB16 Rep Anx5]

The EB shall recommend to the COP/MOP, for adoption at its next session, procedures for conducting the reviews of registration of the proposed CDM project activity and issuance of CER. Until their adoption by the COP/MOP, the procedures shall be applied provisionally. [CDM M&P para5(o),p28]

(1) Request for review (see p32)

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.

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 project participants 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;
- (c) The project participants 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 UNFCCC CDM 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 project participants 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 project participants. 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 project participants 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.

A request for review shall include the form "CDM Project Activity Registration Review" (F-CDM-RR) and provide reasons, including any supporting documentation.

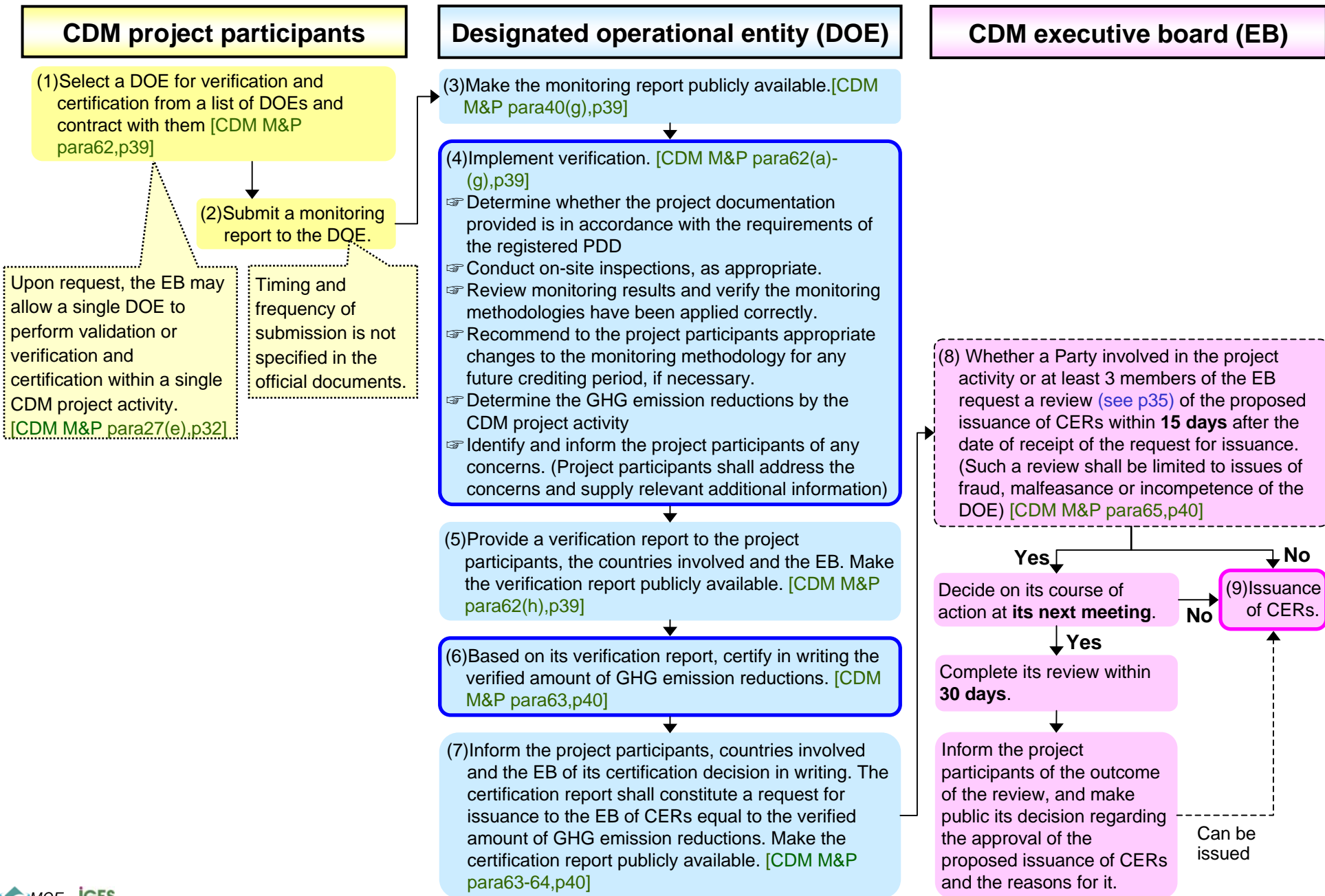
A request for review is considered to be received by the EB as of the date it has been received by the secretariat, and not be considered if it is received after **17:00 GMT** of the last day of the **8 week** period after the receipt of the request for registration.

F-CDM-RR can be downloaded from <http://cdm.unfccc.int/Reference/Forms/Registration>

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

10. Verification, certification and issuance of CERs

10-1. Overview of procedures for verification, certification and issuance of CERs



10-2. Procedures for review of issuance [EB15 Rep Anx12]

The EB shall recommend to the COP/MOP, for adoption at its next session, procedures for conducting the reviews of registration of the proposed CDM project activity and issuance of CER. Until their adoption by the COP/MOP, the procedures shall be applied provisionally. [CDM M&P para5(o),p28]

(1) Request for review (see p34)

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.

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 project participants 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;
- (c) The project participants 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 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 project participants 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 project participants. 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 project participants 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.

A review shall be limited to issues of fraud, malfeasance or incompetence of the DOEs.

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 days** period after the receipt of the request for issuance of CERs.

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.

11. Distribution of CERs

(1) Upon being instructed by the EB to issue CERs for a CDM project activity, the CDM registry administrator promptly issues the specified quantity of CERs. [CDM M&P para66,p40]

- ◆ CERs are issued into the pending account of the EB in the CDM registry.
 - ☞ The CDM registry is established and maintained by the EB in order to ensure the accurate accounting of the issuance, holding, transfer and acquisition of CERs by Parties not included in Annex I. [CP/2001/13/Ad2 Apx D para1,p47] (see p63)
 - ☞ Pending account for the EB is for issuance of CERs before being transferred to other accounts. [CP/2001/13/Ad2 Apx D para3(a),p47] (see p63)

(2) The quantity of CERs corresponding to the “share of proceeds” are deducted. [CDM M&P para66(a),p40]

- ◆ The share of proceeds is utilized to cover administrative expenses and assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.
 - ☞ The share of proceeds to assist in meeting costs of adaptation is 2 per cent of the CERs issued for a CDM project activity. [CP/2001/13/Ad2 para15,p23]
 - ⇒ CDM project activities in least developed country Parties shall be exempt from the share of proceeds to assist with the costs of adaptation. [CP/2001/13/Ad2 para15,p23]
 - ☞ The level of the share of proceeds to cover administrative expenses of the CDM shall be determined by the COP upon the recommendation of the EB. [CP/2001/13/Ad2 para16,p23]
 - ⇒ The EB has not determined the level yet.
- ◆ The share of proceeds is forwarded to the appropriate accounts in the CDM registry.

(3) The remaining CERs are forwarded to the registry accounts of Parties and project participants involved, in accordance with their request. [CDM M&P para66(b),p41]

- ◆ The decision on the distribution of CERs from a CDM project activity shall exclusively be taken by project participants. [PDD guidelines ver2,p11]
 - ☞ Project participants shall communicate with the EB, through the secretariat, in writing in accordance with the “modalities of communication” submitted together with the registration form.
 - ☞ If a project participant 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. [PDD guidelines ver2,p11]

12. Small-scale CDM (SSC)

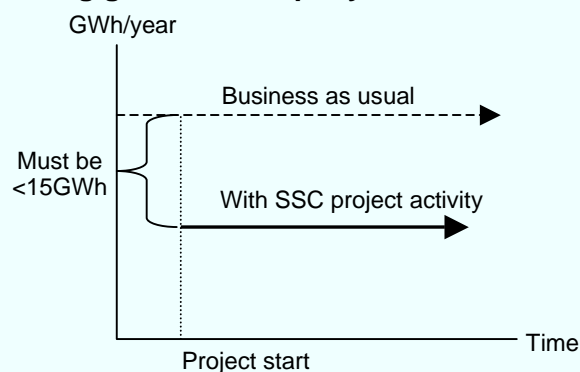
12-1. Definition of a small-scale CDM project activity [CP/2002/7/Ad3,p18]

Simplified modalities and procedures are applicable for the following small-scale clean development mechanism project activities. [CP/2001/13/Ad2 para6(c),p21]

Type (i) : Renewable energy project activities with a maximum output capacity equivalent to up to 15 megawatts (or an appropriate equivalent)

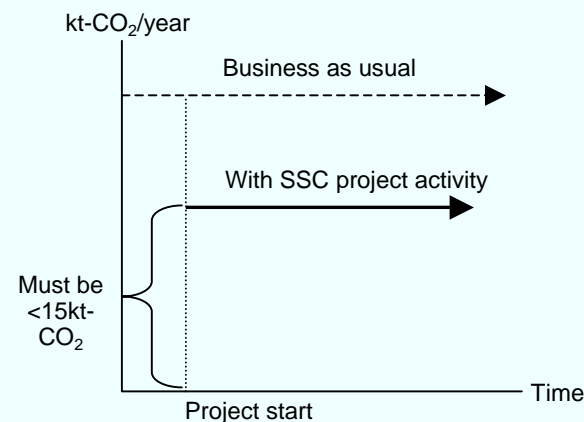
- ☞ The EB has come up with an indicative list of energy sources/eligible project activities under this category.
 - ⇒ Solar, wind, hybrid systems, biogas or biomass, water, geothermal and waste. [EB03 Ann Anx2,p11]
 - ⇒ This list shall evolve and be further elaborated over time as new project activities are proposed and registered.
- ☞ Definition of “output” is installed/rated capacity, as indicated by the manufacturer of the equipment or plant, disregarding the actual load factor of the plant.
- ☞ Project proposals may refer to MW(p), MW(e) or MW(th). As MW(e) is the most common denomination, the EB agreed to define MW as MW(e) and otherwise to apply an appropriate conversion factor.

Type (ii) : Energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to the equivalent of 15 gigawatt hours per year



- ☞ The EB has come up with an indicative list of energy sources/eligible project activities under this category
 - ⇒ Supply side projects and end-use projects (residential, service, industry, transport and cross-cutting technologies). [EB03 Ann Anx2,p13]
 - ⇒ This list shall evolve and be further elaborated over time as new project activities are proposed and registered.
- ☞ Energy efficiency is the improvement in the service provided per unit power.
- ☞ Energy consumption is the consumption reduced and measured in watt-hours with reference to an approved baseline. Lower consumption as a result of lower activity shall not be taken into consideration.

Type (iii) : Other project activities that both reduce anthropogenic emissions by sources and directly emit less than 15 kilotonnes of CO₂ equivalent annually



- ☞ Type (iii) CDM project activities could include agricultural projects, fuel switching, industrial processes and waste management [EB03 Ann Anx2,p16]. Possible examples in the agricultural sector include improved manure management, reduction of enteric fermentation, improved fertilizer usage or improved water management in rice cultivation.
- ☞ Other project activities that could qualify include CO₂ recycling, carbon electrodes, adipic acid production and the use of HFCs, PFCs and SF₆ making reference to the emission reductions generated by such projects expressed in CO₂ equivalent.

12-2. 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: [CP/2002/7/Ad3 para9,p20]
 - ☞ 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 size of the total bundle should not exceed the definition of SSC project activities (see p37);
 - ☞ The requirements for the PDD are reduced;
 - ☞ 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 operational entity may undertake validation, and verification and certification.
- ◆ The other differences from normal CDM project activities are as follows:
 - ☞ The share of proceeds to cover administrative expenses and registration fees may be lower. [CP/2002/7/Ad3 para21,p22]
 - ☞ The registration by the EB shall be deemed final 4 weeks after the date of receipt of the request for registration, unless there is a request for review of the proposed CDM project activity. [CP/2002/7/Ad3 para24,p23]
 - ⇒ 8 weeks, instead of 4, for large CDM project activities.

- ◆ Simplified baseline and monitoring methodologies have been developed for SSC project activity categories (see p40). [CP/2002/7/Ad3 para10,p21]
 - ☞ This list shall not preclude other types of SSC project activities.
- ◆ A simplified baseline and monitoring methodology listed in CP/2002/7/Ad3 ApxB may be used for a SSC project activity if the project participants are able to demonstrate to a DOE that the project activity would otherwise not be implemented due to the existence of one or more of the barriers listed in CP/2002/7/Ad3 ApxB AttA (see p39). [CP/2002/7/Ad3 para28,p23]
 - ☞ Quantitative evidence that the project activity would otherwise not be implemented may be provided instead of a demonstration based on the barriers listed in CP/2002/7/Ad3 ApxB AttA.

BOX: New small-scale project activity category or revisions to a methodology [CP/2002/7/Ad3 para16-18,p21]

- ☞ Project participants willing to submit a new small-scale project activity category or revisions to a methodology make a request in writing to the EB providing information about the technology/activity and proposals on how a simplified baseline and monitoring methodology would be applied to this category.
- ☞ The EB shall expeditiously, if possible at its next meeting, review the proposed methodology.
 - ⇒ The EB may draw on expertise, as appropriate, in considering
- ☞ Once approved, the EB shall amend CP/2002/7/Ad3 ApxB.
- ☞ The EB shall review and amend, as necessary, appendix B at least once a year.
- ☞ Any amendments to appendix B apply only to project activities registered subsequent to the date of amendment and not affect registered CDM project activities during the crediting periods for which they are registered.

The barriers [CP/2002/7/Ad3 ApxB AttA,p26] [EB07 Rep Anx6,p19]

- ◆ Project participants 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;

☞ 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;

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

☞ Other barriers: without the project activity, for another specific reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, financial resources, or capacity to absorb new technologies, emissions would have been higher.

Bundling

- ◆ Project activities may be bundled or portfolio bundled at the following stages in the project cycle.

[CP/2002/7/Ad3 para9(a),p20]

- ☞ An overall monitoring plan that monitors performance of the constituent project activities on a sample basis may be proposed for bundled project activities.
- ☞ If bundled project activities are registered with an overall monitoring plan, this monitoring plan shall be implemented and each verification/certification of the emission reductions achieved shall cover all of the bundled project activities. [CP/2002/7/Ad3 para19,p22]

Debundling

- ◆ To use simplified modalities and procedures for SSC project activities, a proposed project activity shall not be a debundled component of a larger project activity. [CP/2002/7/Ad3 para12(c),p21]
- ☞ A proposed small-scale project activity shall be deemed to be a debundled component of a large project activity if there is a registered small-scale CDM project activity or an application to register another small-scale CDM project activity: [CP/2002/7/Ad3 ApxC,p27]
 - ⇒ With the same project participants;
 - ⇒ In the same project category and technology/measure; and
 - ⇒ Registered within the previous 2 years; and
 - ⇒ Whose project boundary is within 1 km of the project boundary of the proposed small-scale activity at the closest point.

BOX: maximum reference value of a small-scale CDM project activity

- ☞ The EB agreed that if the maximum reference value of a small-scale CDM project activity is exceeded on an annual average basis during any verified period, CERs should be issued only up to the maximum value. [CP/2002/7/Ad3 para8,p20]

12-3. Simplified baseline and monitoring methodologies

- ◆ Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories, including recommendations for determining the project boundary, leakage, baseline and monitoring, have been developed for the following categories except for III.A. [CP/2002/7/Ad3 ApxB] [Version 05: 25 February 2005]

TYPE I - RENEWABLE ENERGY PROJECTS
I.A. Electricity generation by the user
I.B. Mechanical energy for the user
I.C. Thermal energy for the user
I.D. Renewable electricity generation for a grid
TYPE II - ENERGY EFFICIENCY IMPROVEMENT PROJECTS
II.A. Supply side energy efficiency improvements - transmission and distribution
II.B. Supply side energy efficiency improvements - generation
II.C. Demand-side energy efficiency programmes for specific technologies
II.D. Energy efficiency and fuel switching measures for industrial facilities
II.E. Energy efficiency and fuel switching measures for buildings
II.F. Energy efficiency and fuel switching measures for agricultural facilities and activities
TYPE III - OTHER PROJECT ACTIVITIES
III.A. Agriculture
III.B. Switching fossil fuels
III.C. Emission reductions by low-greenhouse gas emitting vehicles
III.D. Methane recovery
III.E. Avoidance of methane production from biomass decay through controlled combustion

13. Afforestation and Reforestation CDM (A/R CDM) project activity

13-1. Overview of A/R CDM project activity

Rules and procedures regarding A/R CDM project activities are similar to those of GHG emission reduction CDM project activity including project cycle, PDD contents, and validation and verification procedure. The most significant difference between the emission reduction CDM and A/R CDM is non-permanence. Once GHG emission reductions are achieved, they are permanent reduction whereas in A/R CDM, CO₂ once sequestered in trees could be 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 new type of CERs, namely temporary CERs (**tCERs**) and long-term CERs (**ICERs**). (see p43)

Types of A/R CDM project activities

◆ Land use, Land-use change and Forestry project activities under the CDM is limited to afforestation and reforestation [CP/2001/13/Ad2 para7(a),p22]

☞ “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.

[FCCC/CP/2001/13/Add.1 Anx para1(b)-(c),p58]

Participation requirements [CDM A/R M&P para7-8,p17]

◆ All provisions of participation requirements of the CDM M&P apply mutatis mutandis to A/R CDM.

◆ An non-Annex I Party may host an A/R CDM project, if it has selected and reported to the EB through its DNA:

- (a) A single minimum tree crown cover value between 10 and 30%; and
- (b) A single minimum land area value between 0.05 and 1 hectare; and
- (c) A single minimum tree height value between 2 and 5 metres.

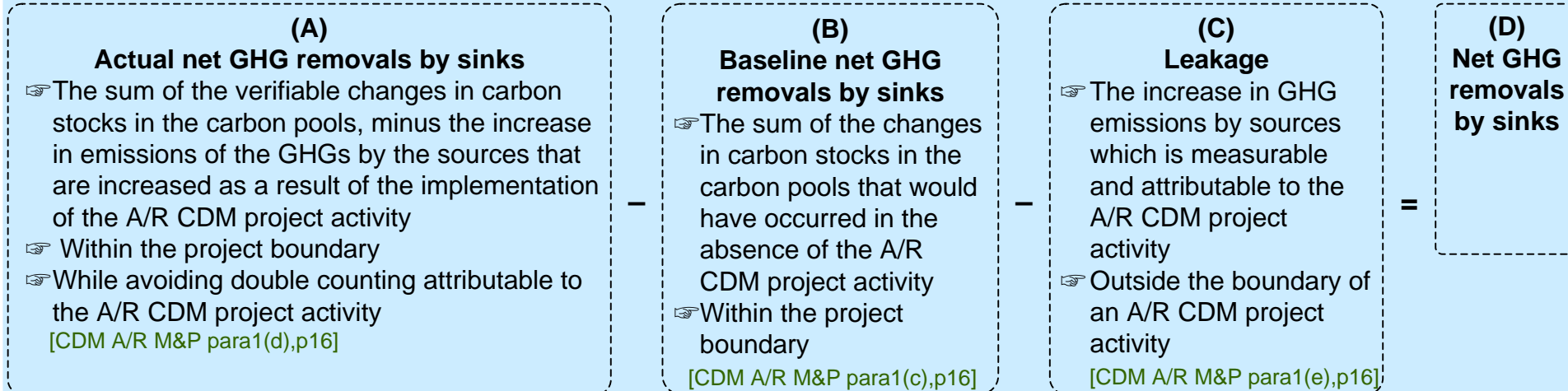
Crediting period of the A/R CDM project activity [CDM A/R M&P para23,p21]

☞ 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

13-2. Calculation of GHG removals

Calculation of net GHG removals by A/R CDM project activities [CDM A/R M&P para1(f),p16]



Carbon pools

- ☞ The carbon pools are above-ground biomass, belowground biomass, litter, dead wood and soil organic carbon. [CDM A/R M&P para1(a),p16]
- ☞ Project participants may choose not to account for one or more carbon pools, and/or emissions of the GHGs measured in CO₂ equivalents, while avoiding double counting. Project participants need to prove that the choice of carbon pools will not increase the expected net GHG removals by sinks. [CDM A/R M&P para21,p10]

Project boundary

- ☞ The “project boundary” geographically delineates the A/R project activity under the control of the project participants. The project activity may contain more than one discrete area of land. [CDM A/R M&P para1(b),p16]

Baseline approach for an A/R CDM project activity [CDM A/R M&P para22,p10]

- ◆ In choosing a baseline methodology for an A/R CDM project activity, project participants shall select from among the following approaches the one deemed most appropriate for the project activity, taking into account any guidance by the EB, and justify the appropriateness of their choice:

(a) Existing or historical, as applicable, changes in carbon stocks in the carbon pools within the project boundary;

(b) Changes in carbon stocks in the carbon pools within the project boundary from a land use that represents an economically attractive course of action, taking into account barriers to investment;

(c) Changes in carbon stocks in the pools within the project boundary from the most likely land use at the time the project starts.

13-3. Non-permanence of A/R CDM project activities (tCER and ICER)

◆ Temporary CERs (tCERs) and Long-term CERs (ICERs):

- ☞ The project participants shall select one of the following approaches to addressing non-permanence of an A/R CDM project activity [CDM A/R M&P para38,p24]:
 - (a) Issuance of **tCERs** for the net GHG removals by sinks achieved by the project activity since the project start date; or
 - (b) Issuance of **ICERs** 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.

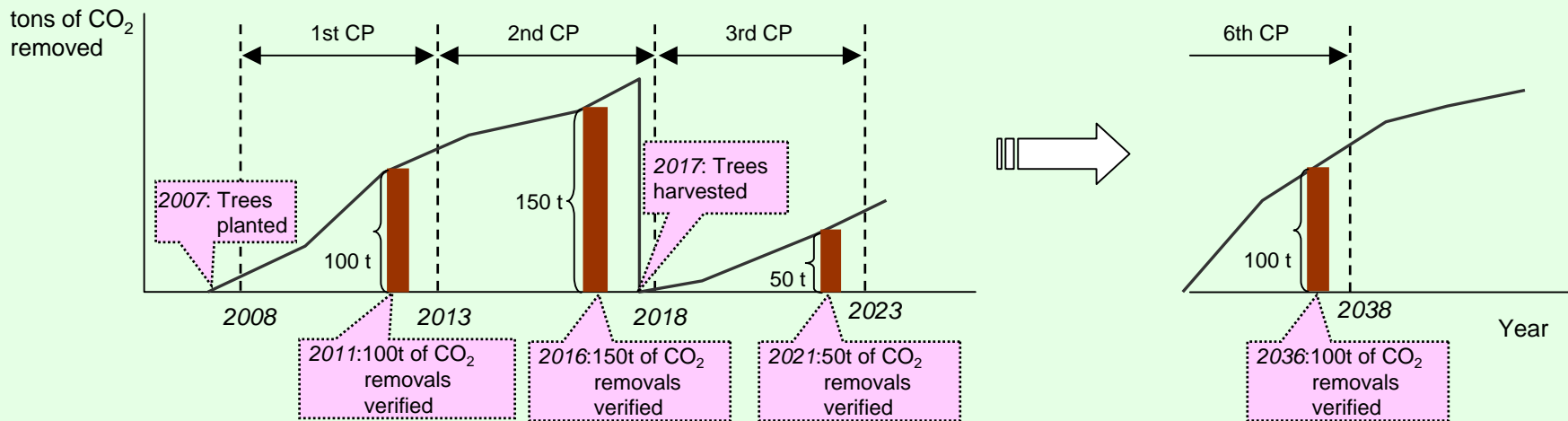
Expiry of tCERs and ICERs

- ☞ Each **tCER** shall expire at the end of the commitment period subsequent to the commitment period for which it was issued. [CDM A/R M&P para42,p24]
- ☞ Each **ICER** 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. [CDM A/R M&P para46,p25]

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

◆ The chart below shows changes in GHG removals by an A/R project activity. In the next two pages, an explanation of issuance and expiration of **tCERs** and **ICERs** will be given based on the assumptions shown in the chart below.

- ☞ Trees are planted in 2007.
- ☞ 1st issuance of **tCERs** or **ICERs** takes place in 2011. Trees are left to grow during the 1st and 2nd commitment periods (assuming each commitment period would be 5 years) and 2nd issuance of **tCERs** or **ICERs** takes place in 2016.
- ☞ 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 2036.
- ☞ Each **tCER** or **ICER** issued will be used for achieving a Party's emission reduction target.
- ☞ Crediting period is 30 years without renewal.



13-3. Non-permanence of A/R CDM project activities (tCER and ICER)

Example: From issuance to replacement of tCERs

Actions taken by project participants

Actions taken by Annex I parties

2007

Trees are planted and A/R CDM project activity registered

1st CP

2011

100 tCERs are issued

The Party holds the 100 tCERs transfers the tCERs to its retirement account at the end of the 1st CP. (Hereafter assume the Party does same thing for subsequent CPs)
 ⇒ tCERs may not be carried over to a subsequent CP. [CDM A/R M&P para41,p24]

2nd CP

2016

150 tCERs are issued

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

2017

Trees are harvested

Each tCER shall expire at the end of the CP subsequent to the CP for which it was issued [CDM A/R M&P para42,p24]. And a tCER shall be replaced before its expiry date [CDM A/R M&P para44,p25]. Therefore, 100 tCERs shall be replaced by the party before the end of 2nd CP.

⇒ To replace tCERs, the concerned Party shall transfer the same quantity of AAUs, CERs, ERUs, RMUs or tCERs to the tCER replacement account of the current CP [CDM A/R M&P para43-44,p25]
 ⇒ This condition may vary depending on each Party's domestic policy, and the project participant may be held responsible for replacement.

3rd CP

2021

50 tCERs are issued

150 tCERs shall be replaced before the end of 3rd CP.

50 tCERs shall be replaced before the end of 4th CP.

The same process continues until the end of the crediting period

6th CP

2036

100 tCERs are issued

The end of crediting period

100 tCERs shall be replaced before the end of 7th CP.

7th CP

13-3. Non-permanence of A/R CDM project activities (tCER and ICER)

Example: From issuance to replacement of ICERs

Actions taken by project participants

Actions taken by Annex I parties

2007

Trees are planted and A/R CDM project activity registered

1st CP

2011

100 ICERs are issued

The Party holds 100 ICERs transfers the ICERs to its retirement account at the end of the 1st CP. (Hereafter assume the Party dose same thing for subsequent CPs)
 ⇒ ICERs may not be carried over to a subsequent CP. [CDM A/R M&P para45,p25]

2nd CP

2016

50 ICERs are issued

The planted trees have GHG removal of 150t, 50 ICERs would be issued. (The difference between the previous and the current GHG removals).

2017

Trees are harvested

3rd CP

2021

Reversal of 100 t-CO₂ removal is found

Where the certification report of the DOE indicates a reversal of GHG removals since the previous certification, an equivalent quantity of ICERs shall be replaced [CDM A/R M&P para49,p25]. Therefore, 100 ICERs shall be replaced by the party.

⇒ To replace ICERs, the concerned Party shall transfer the same quantity of AAs, CERs, ERUs, RMUs or ICER to the ICER replacement account of the current CP within 30 days. [CDM A/R M&P para49(d),p26]

⇒ This condition may vary depending on each Party's domestic policy, and the project participant may be held responsible for replacement.

As far as reversal of removal is not found, ICER does not have to be replaced until the end of crediting period

The same process continues until the end of the crediting period

6th CP

2036

50 ICERs are issued

The end of crediting period

100 ICERs that have been transferred to the retirement account of the Party and have not been replaced yet, shall be replaced before its expiry date.

7th CP

13-4. Small-scale A/R CDM project activity

Definition of small-scale A/R CDM project activity

- ☞ Those that are expected to result in net GHG removals by sinks of less than 8,000 t-CO₂/year; [CDM A/R M&P para1(i),p16]
 - ⇒ The average projected net GHG removals by sinks for each verification period shall not exceed 8,000 t-CO₂/year. [CP/2004/10/Ad2 para1(b),p26]
- ☞ Developed or implemented by low-income communities and individuals as determined by the host Party. [CDM A/R M&P para1(i),p16]
 - ⇒ Prior to the submission of the validation report to the EB, the DOE have received from the project participants a written declaration of that. [CP/2004/10/Ad2 para15(b),p32]

☞ If a small-scale A/R CDM project activity results in net GHG removals by sinks greater than 8,000t of CO₂ per year, the excess removals will not be eligible for the issuance of **tCERs** or **iCERs**. [CDM A/R M&P para1(i),p16]

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: [CP/2004/10/Ad2 para1,p29]
 - ☞ 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. [CP/2004/10/Ad2 para13,p30]

- ◆ The EB shall develop simplified baseline methodologies, for the following types of small-scale A/R CDM project activities: [CP/2004/10/Ad2 para4,p38]
 - ☞ (a) Grassland to forested land
 - ☞ (b) Cropland to forested land
 - ☞ (c) Wetland to forested land
 - ☞ (d) Settlements to forested land
- ◆ No monitoring of the baseline is requested.
- ◆ If project participants demonstrate that the small-scale A/R CDM project activity does not result in the displacement of activities or people, or does not trigger activities outside the project boundary, that would have been attributable to the small-scale A/R CDM project activity, such that an increase in GHG emissions by sources occurs, a leakage estimation is not required.
 - ☞ In all other cases leakage estimation is required.
 - ☞ The EB shall develop guidelines to estimate leakage. [CP/2004/10/Ad2 para9,p39]

14. Joint Implementation (JI)

14-1. JI project cycle

“Joint Implementation (JI)” is a common name for “Article 6 project activity” defined in the Kyoto Protocol. However, this guide employs the term JI since it is widely used and popularly recognized.

Track 1 and track 2

◆ The procedures for issuing emission reduction unit (ERU) based on a project activity which reduces or removes GHG emissions in a host Party (Annex I Party), are different depending on whether a host Party meets the eligibility requirements shown on the right.

Track 1 : Where it is considered a host Party meets the eligibility requirements, the host Party may issue the appropriate quantity of ERUs. [CP/2001/13/Ad2 para23,p13]

☞ Because JI involves credit transfers between Parties both of which have emission caps and the total amount of emission cap of Annex I Parties will not change, a host Party can decide the amount of ERUs to be issued and transferred.

☞ A host Party which meets the eligibility requirements may at any time elect to use the verification procedure under the Art.6-SC (which means track 2). [CP/2001/13/Ad2 para25,p13]

Track 2 : Where it is considered a host Party does not meet the eligibility requirements, the verification of GHG emission reductions or removals by sinks from a JI project shall occur through the verification procedure as set out, which is similar to modalities and procedures for CDM.

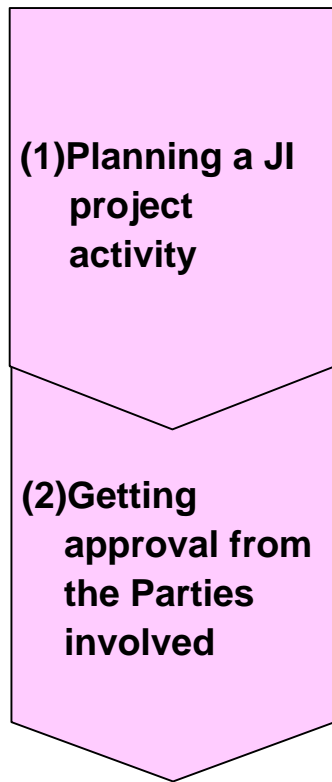
[CP/2001/13/Ad2 para24,p13]

☞ The host Party may however only issue and transfer ERUs upon meeting the requirements below:

- ⇒ It is a Party to the Kyoto Protocol;
- ⇒ Its assigned amount has been calculated and recorded;
- ⇒ It has in place a national registry.

Eligibility requirements [CP/2001/13/Ad2 para21,p12]

- ☞ An Annex I Party is eligible to transfer and/or acquire ERUs issued in accordance with the relevant provisions, if it is in compliance with the following eligibility requirements:
- ⇒ It is a Party to the Kyoto Protocol;
 - ⇒ Its assigned amount (see p1) has been calculated and recorded;
 - ⇒ It has in place a national registry;
 - ⇒ It has in place a national system for the estimation of GHG emissions and removals by sinks of GHGs;
 - ⇒ It has submitted annually the most recent required inventory, including the national inventory report and the common reporting format;
 - ⇒ For the 1st commitment period, the quality assessment needed for the purpose of determining eligibility to use the mechanisms shall be limited to the parts of the inventory pertaining to GHG emissions from sources/sector categories from Annex A to the KP and the submission of the annual inventory on sinks;
 - ⇒ It submits the supplementary information on assigned amount and makes any additions to, and subtractions from, assigned amount, including for the activities under Art.3, para3 and 4 of the KP (land-use, land-use change and forestry).



◆ JI project participants plan a JI project activity
 ☞ There are several conditions for a project activity to be registered as a JI project activity (see p52), and JI project participants should consider those conditions from a planning stage.
 ◆ If it is track 2 JI, JI project participants shall prepare the project design document (PDD) that contains all information needed. (see p52)

◆ JI project participants shall get approvals from designated focal point for approving JI projects of the Parties involved. [CP/2001/13/Ad2 para20(a),p11]
 ☞ A Party involved in JI projects has its national guidelines and procedures for approving JI projects. [CP/2001/13/Ad2 para20(b),p11]
 ☞ The details of approval procedure is up to each Party.

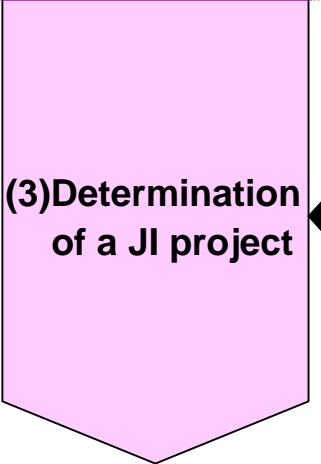
Where a host Party meets the eligibility requirements (see p47)

Where a host Party does not meet the eligibility requirements (see p47)

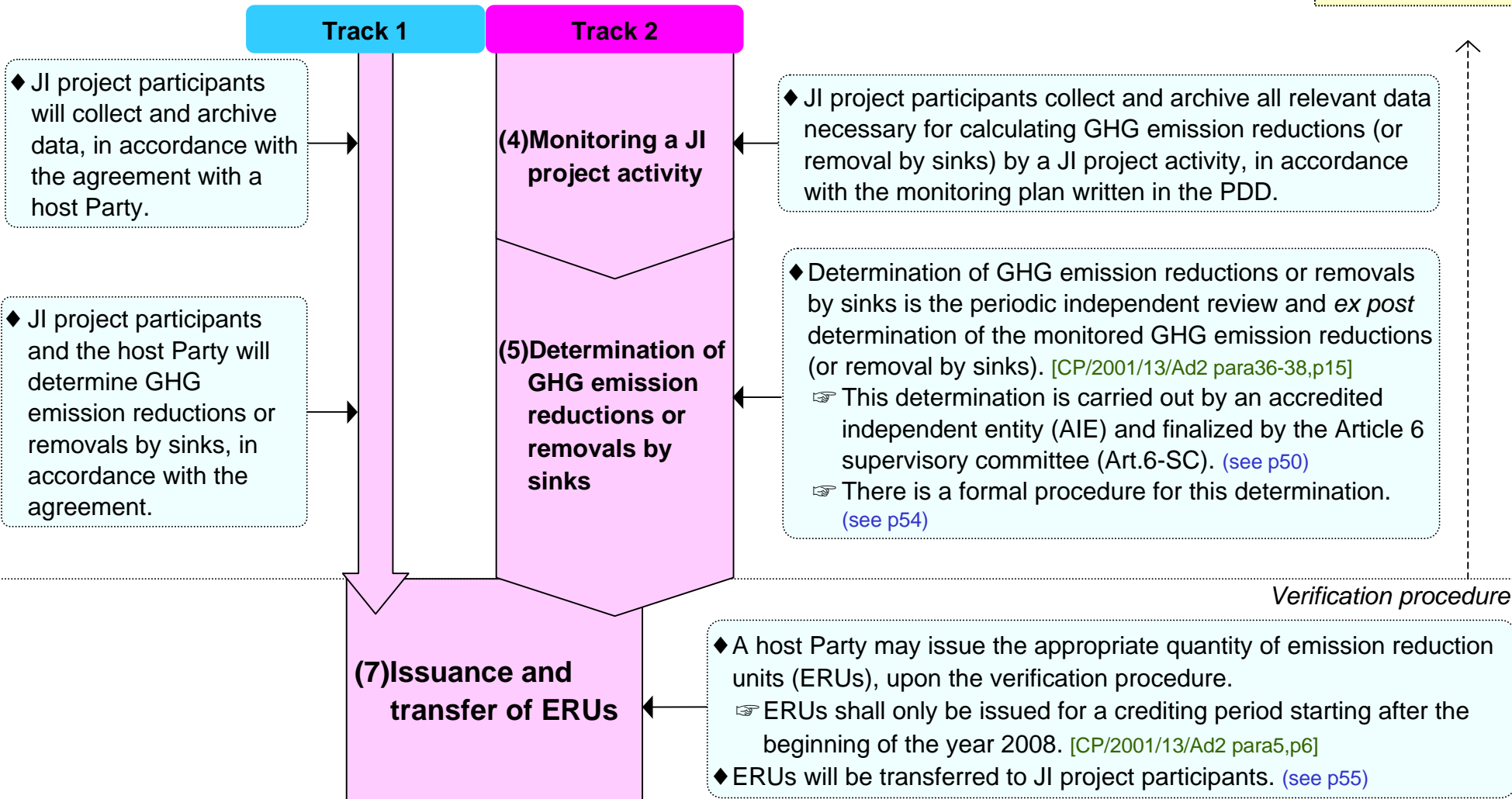


Verification procedure

◆ JI projects will be determined in consultation with the host Party



◆ Determination of a JI project is to judge whether a project meets the relevant requirements of JI and these guidelines. [CP/2001/13/Ad2 para30,p13]
 ☞ This determination is carries out by an independent entity (AIE) (see p51), accredited pursuant to the standards and procedures.
 ☞ There is a formal procedure for this determination. (see p53)



BOX: Future revision of the guidelines for the implementation of JI [CP/2001/13/Ad2 para8,p6]

- ☞ Future revision of the guidelines is decided in accordance with the rules of procedure of the COP/MOP, as applied.
 - ⇒ The 1st review is carried out no later than 1 year after the end of the 1st commitment period, and further reviews are carried out periodically thereafter.
 - ⇒ The 1st review is carried out based on recommendations by the Art.6-SC and by the SBI drawing on technical advice of the SBSTA, as needed.
 - ⇒ Any revision of the decision shall not affect ongoing JI projects.

14-2. JI-related organizations

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP)

- ◆ The COP/MOP shall provide guidance regarding the implementation of Article 6 (JI) and exercise authority over the Article 6 supervisory committee. [CP/2001/13/Ad2 para2,p8]

For Track 2

Article 6 supervisory committee (Art.6-SC)

- ◆ The Article 6 supervisory committee is established at COP/MOP1. [CP/2001/13/Ad2 para3,p6]
- ◆ It shall supervise, inter alia, the verification of ERUs generated by JI project activities. [CP/2001/13/Ad2 para3,p9]
- ◆ And it is responsible for: [CP/2001/13/Ad2 para3,p9]
 - ☞ The accreditation of independent entities (see p51) in accordance with standards and procedures;
 - ☞ The review of standards and procedures for the accreditation of independent entities, giving consideration to relevant work of the CDM Executive Board and making recommendations to the COP/MOP on revisions to these standards and procedures;
 - ☞ The review and revision of reporting guidelines and criteria for baselines and monitoring, for consideration by the COP/MOP, giving consideration to relevant work of the CDM Executive Board;
 - ☞ The elaboration of the Article 6 (JI) project design document (see p52), for consideration by the COP/MOP, taking into consideration of modalities and procedures for a CDM and giving consideration to relevant work of the EB;
 - ☞ etc.
- ◆ Any administrative costs arising from procedures relating to the functions of the Art6-SC shall be borne by both the Parties included in Annex I and the project participants.
 - ☞ Specifications will be set out in a decision by the COP/MOP1. [CP/2001/13/Ad2 para7,p6]

Members of the Art.6-SC [CP/2001/13/Ad2 para4-8,p9]

- ☞ The Art.6-SC comprises 10 members from Parties to the KP.
 - ⇒ 3 members from EIT countries (Annex I Parties), 3 members from Annex I Parties not referred to in above, 3 members from non-Annex I Parties and 1 member from the small island developing States.
 - ⇒ As a result, 6 are from Annex I Parties and 4 are from non-Annex I Parties.
 - ⇒ There is an alternate for each member of the Art.6-SC.
- ☞ Members, including alternate members, of the Art.6-SC are nominated by the relevant constituencies referred above and be elected by the COP/MOP.
 - ⇒ The nomination by a constituency of a candidate member shall be accompanied by a nomination of a candidate alternate member from the same constituency.
- ☞ Members may 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 for a term of 2 years and 5 members and 5 alternate members for a term of 3 years. Thereafter, the COP/MOP elects, every year, 5 new members and 5 alternate members for a term of 2 years.
 - ⇒ The members and alternate members shall remain in office until their successors are elected.
- ☞ The Art.6-SC elects annually a chair and vice-chair from among its members, with one being from an Annex I Party and the other being from a non-Annex I Party.
 - ⇒ The positions of chairperson and vice-chairperson alternate annually between a member from an Annex I Party and the other being from a non-Annex I Party.

Meeting and decision of the Art.6-SC

- ☞ The Art.6-SC meets at least 2 times each year, whenever possible in conjunction with the meetings of the subsidiary bodies, unless decided otherwise. [CP/2001/13/Ad2 para9,p10]
- ☞ At least 2/3 of the members of the Art.6-SC, 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. [CP/2001/13/Ad2 para14,p11]
- ☞ Decisions by the Art.6-SC is taken by consensus, whenever possible. If that is not possible, decisions shall as a last resort be adopted by a 3/4 majority vote of the members present and voting at the meeting. Members abstaining from voting shall be considered as not voting. [CP/2001/13/Ad2 para15,p11]

For Track 2

Accredited Independent Entity (AIE)

- ◆ The AIE is an independent verifier for track 2 JI, which corresponds a DOE for the CDM (see p15), and it shall:
 - ☞ Determine whether a project which reduces GHG emissions (or removes by sinks) meets the relevant requirements of JI and these guidelines; [CP/2001/13/Ad2 para30,p13]
 - ☞ Make a determination of the GHG emission reductions (or removal by sinks) reported by project participants in accordance with criteria for baseline setting and monitoring. [CP/2001/13/Ad2 para37,p15]

Standards and procedures for the accreditation of IEs

- ◆ The AIEs are accredited by the Art.6-SC. [CP/2001/13/Ad2 para3(b),p9]
- ◆ There are standards and procedures for the accreditation of IEs [CP/2001/13/Ad2 ApxA,p16]. For example, an IE shall:
 - ☞ Be a legal entity (either a domestic legal entity or an international organization);
 - ☞ Employ a sufficient number of persons, and have the financial stability and a management structure to have the necessary competence to perform its functions;
 - ☞ Have the necessary expertise to carry out the functions specified in the standards and procedures and relevant decisions by the COP/MOP;
 - ☞ Work in a credible, independent, non-discriminatory and transparent manner;
 - ☞ Etc.

Suspension or withdrawal of a AIE [CP/2001/13/Ad2 para42,p15]

- ◆ The Art.6-SC shall suspend or withdraw the accreditation of an IE if it has carried out a review and found that the entity no longer meets the accreditation standards.
 - ☞ The Art.6-SC may suspend or withdraw accreditation only after the AIE has had the opportunity of a hearing and depending on the outcome of the hearing.
 - ☞ The suspension or withdrawal is with immediate effect.
 - ☞ The affected entity shall be notified, immediately and in writing, once the Art.6-SC has decided upon its suspension or withdrawal. The decision by the Art.6-SC on such a case shall be made public.

Affect to verified JI project by the suspension or withdrawal of accreditation of an AIE [CP/2001/13/Ad2 para43-45,p16]

- ☞ Verified projects shall not be affected by the suspension or withdrawal of the accreditation of an AIE unless significant deficiencies are identified in the determination for which the entity was responsible.
- ☞ In case that significant deficiencies are identified, the Art.6-SC shall decide whether a different AIE shall be appointed to assess and, where appropriate, correct such deficiencies.
 - ⇒ Any costs related to the assessment shall be borne by the AIE whose accreditation has been withdrawn or suspended.
- ☞ If such an assessment reveals that excess ERUs have been transferred as a result of the deficiencies identified in the determination, the IE whose accreditation has been withdrawn or suspended shall acquire an equivalent amount of AAUs and ERUs and place them in the holding account of the Party hosting the project within 30 days from the assessment mentioned above.
- ☞ Any suspension or withdrawal of an AIE that adversely affects verified projects shall be decided on by the Art.6-SC only after the affected project participants have had the opportunity of a hearing.

14-3. Conditions for JI projects

For Track 1

For Track 2

- ◆ When planning a JI project activity, it is necessary to keep in mind following points:
 - ☞ Annex I Parties are to refrain from using ERUs generated from nuclear facilities to meet their commitments of the KP; [CP/2001/13/Ad2,p5]
 - ☞ JI projects aimed at enhancing removals by sinks shall conform to definitions, accounting rules, modalities and guidelines under Art.3, para 3 and 4, of the KP. [CP/2001/13/Ad2 para4,p6]
 - ⇒ For the 1st commitment period, ERUs resulting from forest management project activities shall not exceed the value inscribed in the [CP/2001/13/Ad1 Apx,p63], times five.
- ◆ A Party involved in a JI project shall inform the UNFCCC secretariat of its designated focal point for approving projects and its national guidelines and procedures for approving JI projects as well as monitoring and verification. [CP/2001/13/Ad2 para20,p11]
- ◆ Projects starting as of the year 2000 may be eligible as JI projects. [CP/2001/13/Ad2 para5,p6]
 - ☞ ERUs shall only be issued for a crediting period starting after the beginning of the year 2008.

For Track 2

Project design document (PDD)

- ◆ JI project participants shall submit to an AIE a PDD that contains all information needed for the determination of whether the project: [CP/2001/13/Ad2,para31,p14]
 - ☞ Has been approved by the Parties involved;
 - ☞ Would result in GHG emission reductions or removals by sinks that is additional to any that would otherwise occur;
 - ☞ Has an appropriate baseline and monitoring plan in accordance with the criteria set out.

- ◆ Project design document of JI will be elaborated for consideration by the COP/MOP, taking into consideration of modalities and procedures for a CDM and giving consideration to relevant work of the CDM Executive Board, as appropriate. [CP/2001/13/Ad2,para3(e),p9]
- ◆ Criteria for baselines and monitoring will be reviewed and revised by the Art.6-SC for consideration by the COP/MOP, giving consideration to relevant work of the CDM Executive Board, as appropriate. [CP/2001/13/Ad2,para3(d),p9]

14-4. Determination of JI projects

For Track 2

JI project participants

- (1) Select a AIE for determination and contract with them.
- (2) Submit a PDD that contains all information needed for the determination to the selected AIE. [CP/2001/13/Ad2 para31,p14]

Accredited independent entity (AIE)

- (3) Make the PDD publicly available through the UNFCCC secretariat, subject to confidentiality provisions. Receive comments from Parties, stakeholders and UNFCCC accredited observers for **30 days** from the date the PDD is made publicly available. [CP/2001/13/Ad2 para32,p14]
- (4) Determine whether the project meets the relevant requirements of JI and these guidelines. [CP/2001/13/Ad2 para33,p14]

Article 6 supervisory committee

- (6) Whether there is a Party involved in the project or 3 of the members of the Art.6-SC request a review by Art.6-SC within **45 days** after the date on which the determination is made public. [CP/2001/13/Ad2 para35,p14]

No Yes

- (5) Make its determination publicly available through the UNFCCC secretariat, together with an explanation of its reasons, including a summary of comments received and a report of how due account was taken of these. [CP/2001/13/Ad2 para34,p14]

No Yes

- (7) Determination of JI project.
- The Art.6-SC shall finalize the review no later than **6 months** or **at the 2nd meeting** following the request for review, and shall communicate its decision on the determination and the reasons for it to the project participants and the public. [CP/2001/13/Ad2 para35,p14]

May be reconsidered for determination after appropriate revisions.

Can be determined

Not determined

14-5. Determination of the reductions or removals by JI projects

For Track 2

JI project participants

Accredited independent entity (AIE)

Article 6 supervisory committee

(1) Submit to an AIE a report in accordance with the monitoring plan on GHG emission reductions or removals by sinks that have already occurred.
 ☞ The report shall be made publicly available.
 [CP/2001/13/Ad2 para36,p15]

Timing and frequency of submission is not specified in the official documents.

(2) Make a determination of the GHG emission reductions or removals by sinks reported by project participants, provided that they were monitored and calculated in accordance with the monitoring plan.
 [CP/2001/13/Ad2 para37,p15]

(3) Make its determination publicly available through the UNFCCC secretariat, together with an explanation of its reasons.
 [CP/2001/13/Ad2 para38,p15]

(4) Whether there is a Party involved in the project or 3 of the members of the Art.6-SC request a review by Art.6-SC within **15 days** after the date on which it is made public.
 [CP/2001/13/Ad2 para39,p15]

Yes No

Decide on its course of action at its next meeting or no later than **30 days** after the formal request for the review.

No review

(5) Determination of the reductions or removals.

Review

Complete its review within **30 days** following its decision to perform the review.

Inform the project participants of the outcome of the review, and make public its decision and the reasons for it.

Can be determined

14-6. Issuance and transfer of ERUs

(1) A host Party will issue ERUs into its national registry by converting AAUs or RMUs previously issued by that Party and held in its national registry. [CP/2001/13/Ad2 para29,p63]

◆ Each Annex I Party shall 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. [CP/2001/13/Ad2 para17,p61]

(2) JI project participants will acquire ERUs (a host Party will transfer ERUs)

◆ If JI project participant is a Party, it is necessary that the Party meets eligibility requirements in order to acquire ERUs. (see p58)
 ◆ If JI project participant is an entity, it is necessary that the authorizing Party is eligible to do so at that time in order to acquire ERUs. [CP/2001/13/Ad2 para29,p13]

15. Emissions trading

15-1. Overview of emissions trading

The Kyoto Protocol (KP) and the Marrakech Accords do not clearly specify practical steps for emissions trading. However, it can be assumed that the following steps would apply when a Party or legal entity transfers and acquires KP units (ERUs, CERs, tCERs, ICERs, AAUs and RMUs) through international emissions trading under the KP (IET).

(1) Agreement of trading

- ◆ A buyer and seller (in another country) make an agreement regarding transfer and acquisition of KP units.
 - ☞ Terms to be agreed would be the amount of KP units to be traded, serial number (see p62), price, timing of trading, and payment methods.

(2) Verification by the transaction log

- ◆ The seller directs its national registry to transfer specified KP units to the buyers account within another registry.
- ◆ The initiating registry sends a record of the proposed transaction to the transaction log (see p64).
- ◆ The transaction log conducts an automated check to verify that there is no discrepancy with regard to the rules of IET.
 - ☞ Transaction log is a computerized automatic verification system maintained by the UNFCCC secretariat
 - ☞ An example of the rules of IET is the requirement to maintain a commitment period reserve (CPR). (see p57)
 - ☞ Refer to p.59 for other limitations.
 - ☞ If a discrepancy is notified by the transaction log, the initiating registry shall terminate the transaction.

(3) Transfer and acquisition of KP units

- ◆ The buyer acquires KP units (transferred from the seller).
 - ☞ The transfer and acquisition of KP units is formally complete when the transaction has been reflected in both the initiating registry and acquiring registry.
- ◆ Transfer and acquisition of KP units can formally take place after the Parties that authorize the buyer and seller have met the eligibility requirements to participate in the Kyoto Mechanisms. (it is envisaged that will take place approximately around the year 2008) (see p66)
 - ☞ It is conceivable, however, that "(1) agreement of transfer/acquisition" would take place before 2007.

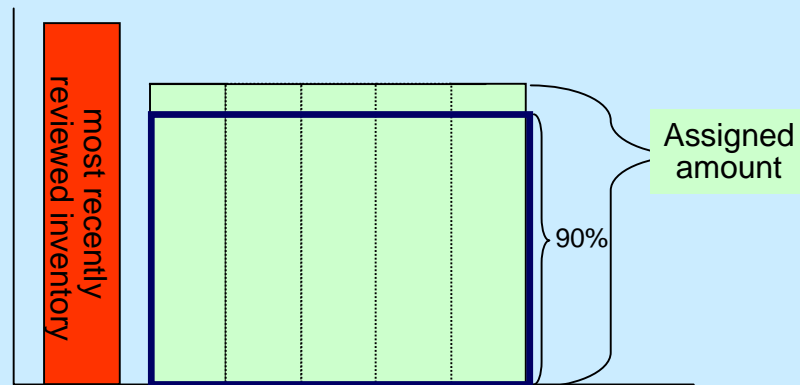
Reference: Future revision of the modalities, rules and guidelines for emissions trading [CP/2001/13/Ad2 para2, p50]

- ☞ The future revision is to be decided in accordance with the rules of procedures of the COP/MOP.
 - ⇒ The first review shall be carried out no later than 1 year after the end of the 1st commitment period.
 - ⇒ The review will be based on recommendations by the SBI drawing on technical advice of the SBSTA, as needed. Further reviews shall be carried out periodically thereafter.

15-2. Commitment period reserve (CPR)

- ◆ Commitment period reserve (CPR) aims at preventing Annex I Parties to oversell KP units through IET, and as a result for their GHG emissions to exceed its holdings of KP units at the end of the 1st commitment period.
- ◆ Each Annex I Party maintains holdings of KP units (AAUs, ERUs, CERs, tCERs, ICERs and/or RMUs), in its national registry, the lower of (1) or (2) below as a CPR., [CP/2001/13/Ad2 para6-7, p54]

(1) 90% of the Party's assigned amount calculated pursuant to Art 3, para7 and 8, of the Kyoto Protocol

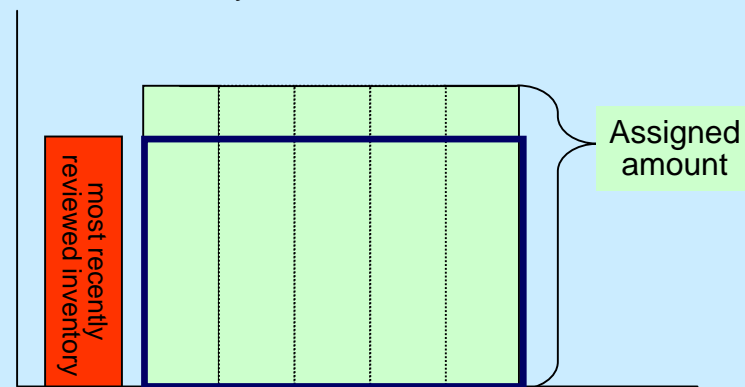


KP units to be maintained as CPR.

Holdings of KP units should exceed 90% of assigned amount

(2) 100% of 5 times its most recently reviewed inventory.

☞ In case (2) above applies, the amount of KP units to be maintained as a CPR would vary every year depending on the inventory.



KP units to be maintained as CPR.

Holdings of KP units should exceed 100% of 5 times the most recent inventory

- ◆ A Party cannot make a transfer which would result in the holdings of KP units being below the required level of the CPR. [CP/2001/13/Ad2 para8, p54]
- ◆ In case of (2) above, if the amount of KP units to be maintained as a CPR fluctuates, and as a result, the required level of the CPR surpasses the Party's holdings of KP units valid for the relevant commitment period, which have not been cancelled, the Party would be notified by the secretariat. [CP/2001/13/Ad2 para9, p54]
 - ☞ The Party must bring its holdings to the required level within 30 days of the notification.
- ◆ Any provisions relating to the CPR shall not apply to transfers by a Party of ERUs issued into its national registry which were verified in accordance with the verification procedure under the Article 6 supervisory committee (i.e. JI track 2). [CP/2001/13/Ad2 para41, p15] [CP/2001/13/Ad2 para10, p54]

16. Terms for the Kyoto Mechanisms

16-1. Eligibility requirements to participate the Kyoto Mechanisms

Eligibility requirements for a Party

- ◆ For an Annex I Party to participate the KM, it has to be in compliance with the following eligibility requirements.
[CP/2001/13/Ad2 para21, p12] [CDM M&P para31, p32] [CP/2001/13/Ad2 para2, p52]
 - ☞ It is a Party to the Kyoto Protocol;
 - ☞ Its assigned amount (see p1) has been calculated and recorded, and it submits the supplementary information (see p65);
 - ☞ It has in place a national registry(see p61);
 - ☞ It has in place a national system for the estimation of GHG emissions and removals by sinks of GHGs;
 - ☞ It has submitted annually the most recent required inventory.
⇒ For the 1st commitment period, to have passes the quality assessment. (see p65);

Eligibility requirements for an entity

- ◆ Entities of an Annex I Party may develop CDM/JI projects, and CERs can be issued into the CDM registry and be forwarded to accounts in the CDM registry, even if the Party does not meet the eligibility requirements.
- ◆ The following must be satisfied for entities to acquire and transfer KP units by the KM:
 - ☞ The Party authorizing the entities to participate in the KM meets the eligibility requirements to participate in the KM.
[CP/2001/13/Ad2 para29, p13] [CDM M&O para33, p33]
[CP/2001/13/Ad2 para5, p53]
 - ☞ A holding account for each entity authorized by the Party has been set up within the national registry
 - ☞ It is possible to prepare CDM and JI projects before the Party fulfills eligibility requirements.

Here, “participate” means:

- ☞ to transfer/acquire KP units through emissions trading;
- ☞ to use CERs to meet emissions reduction target of an Annex I Party. Eligibility requirement for issuance and acquisition of CERs is, the Party designate a national authority for the CDM (which is called DNA);
- ☞ to acquire ERUs through JI, and to issue and transfer ERUs through track 1 procedures. Eligibility requirements to issue and transfer ERUs through track 2 procedures are; to be a Party to the KP; its assigned amount has been calculated; and it has in place a national registry.

BOX: Obtaining eligibility to participate the KM

- ☞ An Annex I Party shall be considered to meet the eligibility requirements to participate the KM, after 16 months have elapsed since the submission of its report regarding the eligibility to the UNFCCC, unless “the enforcement branch of the compliance committee” finds that the Party does not meet these requirements.
⇒ A Party may acquire eligibility before 16 months have elapsed after the submission of the report if the enforcement branch so permits.
⇒ A Party is considered to continue to meet the eligibility requirements unless and until the enforcement branch of the compliance committee decides that the Party does not meet the eligibility requirements.
[CP/2001/13/Ad2 para22, p12] [CDM M&P para32, p33]
[CP/2001/13/Ad2 para3, p53]

BOX: Suspension and reinstatement of a Party’s eligibility

- ☞ Where the enforcement branch has determined that a Party does not meet the eligibility requirements, it shall suspend the eligibility of that Party (as well as entities authorized by that Party) to participate the KM.
[CP/2001/13/Ad3 para4, p76]
- ☞ Where the eligibility of a Party has been suspended, the Party concerned may submit a request to reinstate its eligibility to the enforcement branch after having taken necessary measures for reinstatement. [CP/2001/13/Ad3 para4, p73]
- ☞ The enforcement branch shall reinstate that Party’s eligibility, unless it considers that there continues to be a question of implementation. (the same applies to entities authorized by that Party).
- ☞ The secretariat maintains publicly accessible lists of Annex I Parties that do not meet the requirements or have been suspended. [CP/2001/13/Ad2 para27, p13] [CDM M&P para34, p33] [CP/2001/13/Ad2 para4, p53]

16-2. Limitations of the acquisition and issuance of KP units

Supplementarity of the Kyoto Mechanisms

- ◆ The use of the KM must be supplemental to domestic action and that domestic action shall thus constitute a significant element of the effort made by each Annex I Party to meet its quantified emission limitation and reduction commitments under Art 3, para1 of the KP. [CP/2001/13/Ad2, p2]
 - ☞ This does not set any quantitative limits to the utilization (acquisition of KP units) of the KM.

Limitation for net acquisitions of tCERs and ICERs

- ◆ For the 1st commitment period, the total of credits from eligible A/R CDM project activities (see p41) additions to a Party's assigned amount, shall not exceed 1 % of base year emissions of that Party, times five. [CP/2001/13/Ad2 para7(b), p22]
 - ☞ This means net additions (acquisitions – transfers)

Limitation for ERUs issuance from forest management

- ◆ For the 1st commitment period only, there is a limitation to amount of ERUs issuance from forest management JI project activities for each Party. [CP/2001/13/Ad1 para10-11, p60]
 - ☞ A limit is set to the total amount of RMUs resulting from domestic forest management activities and ERUs resulting from forest management JI project activities, for each Party.
- ◆ There is no limitation for ERUs resulting from afforestation and reforestation JI project activities.

☞ These limitations apply to Parties that participate the Kyoto Mechanisms. However, entities can also be indirectly affected by such limitations.

16-3. Restrictions to carry over KP units

Each Party may carry over KP units held in its registry, that have not been cancelled or retired for the 1st commitment period, to the subsequent commitment period [CP/2001/13/Ad2 para36, p64]. But there are some restrictions as follows.

☞ These restrictions apply to Parties that participate the Kyoto Mechanisms. However, entities can also be indirectly affected by such limitations.

Restrictions on carrying over of ERUs

- ◆ A maximum amount of ERUs acquired through JI project activities that can be carried over is limited to 2.5 % of the assigned amount of each Party.
- ◆ ERUs that have been converted from RMUs cannot be carried over [CP/2001/13/Ad2 para15, p61]

Restrictions on carrying over of CERs

- ◆ A maximum amount of CERs acquired through CDM project activities that can be carried over is limited to 2.5 % of the assigned amount of each Party. [CP/2001/13/Ad2 para15(b), p61]

Restrictions on carrying over of tCERs and ICERs

- ◆ tCERs and ICERs may not be carried over. [CP/2003/6/Ad2 para41, p24] [CP/2003/6/Ad2 para45, p25]

Restrictions on carrying over of RMUs

- ◆ RMUs may not be carried over. [CP/2001/13/Ad2 para16, p61]

- ◆ There is no restrictions on carrying over of AAUs [CP/2001/13/Ad2 para15(c), p61]

16-4. Restrictions in case a Party is not in compliance for its commitments

- ◆ At the end of the additional period for fulfilling commitments (see p67), if “the enforcement branch of the compliance committee” has determined that the emissions of a Party have exceeded its emission cap, suspension of the eligibility to make transfers under emissions trading will be applied until the Party is reinstated. [CP/2001/13/Ad3 para5, p76]
 - ☞ Suspension of the eligibility will apply to a legal entity in the Party as well.
- ◆ If it is declared that a Party is not in compliance with its commitments, a number of tonnes equal to 1.3 times the amount in tonnes of excess emissions will be deducted from the Party’s assigned amount for the 2nd commitment period [CP/2001/13/Ad3 para5(a), p76]

17. Modalities for dealing with KP units

Mainly related to Art.7, para4 of the KP

17-1. National registries

- ◆ 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.

[CP/2001/13/Ad2 para17, p61]

- ☞ Each Party designates an organization as its registry administrator to maintain the national registry of that Party. [CP/2001/13/Ad2 para18, p61]
⇒ 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 (see p63) and the transaction log (see p64) should be ensured. [CP/2001/13/Ad2 para19, p61]

- ◆ Each national registry has the following accounts in order to account for KP units (AAUs, ERUs, CERs, tCERs, ICERs and RMUs): [CP/2001/13/Ad2 para21, p61] [CDM A/R M&P para43, p25] [CDM A/R M&P para47, p25]

(1) Holding account for the Party

(3) Cancellation account for LULUCF activities,
to cancel the KP units in case such activities result in a net source of GHG emissions.

(6) tCER replacement account,
to cancel AAUs, CERs, ERUs, RMUs and/or tCERs for the purposes of replacing tCERs prior to expiry.

(2) Holding account for each legal entity authorized by the Party,
to hold KP units under its responsibility.

(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

(7) ICER replacement account,
to cancel AAUs, CERs, ICERs, ERUs and/or RMUs for the purposes of replacing ICERs.

(5) Cancellation account for other cancellations by the Party,
to cancel KP units for purposes of cancellations other than (3) and (4) above.

(8) Retirement account,
used to retire KP units valid for that commitment period for use towards meeting the Party's commitments.
[CP/2001/13/Ad2 para14, p60]

- ☞ 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. [CP/2001/13/Ad2 para22, p62]

- ◆ 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. [CP/2001/13/Ad2 para35, p64]

- ◆ KP units transferred to the retirement account may not be further transferred or carried over to the subsequent commitment period. [CP/2001/13/Ad2 para35, p64]

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

- ◆ Every t-CO₂ 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.

[CP/2001/13/Ad2 para20, p61]

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 = ICER
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 ICERs

[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.

[CP/2001/13/Ad2 para44-48, p67]

☞ 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.

17-2. CDM registry

- ◆ The EB (see p13) 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. [CP/2001/13/Ad2 para1-2, p47]
 - ☞ 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. [CP/2001/13/Ad2 para3, p47] [CP/2003/6/Ad2 para3, p31]

(1) A pending account for the EB, into which CERs are issued before being transferred to other accounts.

(2) Holding accounts for non-Annex I Party of hosting a CDM project activity or requesting an account.

(3) Cancellation account for excess CERs, to cancel KP units equal to excess CERs issued, as determined by the EB. (see p16)

(4) Cancellation account for tCERs and ICERs, that have expired in a holding account of the CDM registry, and ICERs that have become ineligible. (see p43)

(5) Account for the share of proceeds, to hold and transfer CERs corresponding to the share of proceeds. (see p36)

- ◆ Accounts described in (2)(3)(5) 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. [CP/2001/13/Ad2 para5, p47]
- ◆ 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. [CP/2001/13/Ad2 para4, p47]

Publicly accessible information through the CDM registry

The CDM registry shall make non-confidential information publicly available through the Internet. [CP/2001/13/Ad2 para9-12, p48]

- ◆ Information on accounts
 - ☞ The holder of the account, representative name and contact information of the account holder.
- ◆ Information on the total quantity of CERs
 - ☞ The total quantities of CERs issued and transferred, and the identity of the acquiring accounts and registries
 - ☞ The total quantity of KP units cancelled for excess CERs issued.
- ◆ Information on CER holdings in each account
 - ☞ The total quantity of CERs in each account currently and at the beginning of the year.
- ◆ CDM project activity information
 - ☞ Project name, location, years of CER issuance, the OEs involved, and downloadable electronic versions of documentation to be made publicly available.

17-3. International transaction log (ITL)

- ◆ The UNFCCC secretariat establishes and maintain an international transaction log (ITL) to verify the validity of transactions, including issuance, transfer and acquisition between registries, cancellation, expiration and replacement (in case of tCER and ICER), retirement and the carry-over of KP units. [CP/2001/13/Ad2 para38, p65] [CDM A/R M&P para55-56,p26]
 - ☞ The ITL is in the form of a standardized electronic database. The accurate, transparent and efficient exchange of data between national registries (see p61), the CDM registry (see p63) and the ITL should be ensured

- ◆ The ITL conducts the following automated check. [CP/2001/13/Ad2 para42, p65]

(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. (see p17)

(2) Transfers between registries

- ☞ the eligibility of Parties involved in the transaction to participate in the KM; (see p58)
- ☞ infringement upon the commitment period reserve of the transferring Party. (see p57)

(3) Acquisitions of CERs from A/R CDM projects

- ☞ infringement of the limits (Limitation for net acquisitions of tCERs and ICERs) (see p59)

(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. [CP/2001/13/Ad2 para41, p65]
- ◆ The ITL shall records, and makes publicly available, all transaction records and the date and time of completion of each transaction. [CP/2001/13/Ad2 para43(d), p66]
- ◆ The ITL notifies the Annex I Party that a replacement of the tCER or ICER has to occur, 1 month prior to the expiry of each tCER or ICER. [CDM A/R M&P para55,p26]
 - ☞ Where a Annex I Party does not replace tCERs or ICERs in accordance with the rules, the ITL shall forward a record of non-replacement to the secretariat, for consideration as part of the review process for the relevant Party, under Art.8 of the KP, to the EB and to the Party concerned. [CDM A/R M&P para56,p26]

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. [CP/2001/13/Ad2 para43(a), p66]
- ☞ 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. [CP/2001/13/Ad2 para43(b), p66]

17-4. From issuance to retirement of KP units

1. Issuance of AAUs

(1) Submission of reports to calculate a Party's assigned amount

◆ To demonstrate its capacity to account for its emissions and assigned amount, each Party should submit a report, in 2 parts, to the secretariat. [CP/2001/13/Ad2 para6, p58]

☞ The report is to be submitted prior to 1 January 2007 or 1 year after the entry into force of the Kyoto Protocol for that Party, whichever is later. [CP/2001/13/Ad2 para2, p56]

Contents of part 1 of the report: [CP/2001/13/Ad2 para7, p58]

- ☞ Complete inventories of GHG emissions and removals for all years from 1990, or another approved base year or period to the most recent year available.
- ☞ Selected base year for HFCs, PFCs, and SF₆
- ☞ The agreement under Art4, where the Party has reached such an agreement to fulfill its commitments jointly with other Parties
- ☞ Calculation of its assigned amount on the basis of its inventory of GHG emissions and removals.

Contents of part 2 of the report: [CP/2001/13/Ad2 para8, p58]

- ☞ Calculation of its commitment period reserve (see p57) ;
- ☞ Identification of its selection of minimum values for use in accounting for its LULUCF activities;
- ☞ Identification of its election of activities under Art3, para4 of the KP;
- ☞ Identification of whether, for each activity under Art3, para3 and 4, it intends to account annually or for the entire commitment period;
- ☞ A description of its national system for the estimation of GHG emissions and removals ;
- ☞ A description of its national registry.

(2) Review of information by the expert review team (ERT)

◆ After initial review by the ERT and resolution of any questions, the assigned amount of each Party shall be recorded in the database for the compilation and accounting of emissions and assigned amounts

One of the eligibility requirements to participate in the Kyoto Mechanisms (see p58) is that a Party's has submitted annually the most recent required inventory, and to have passes the quality assessment.

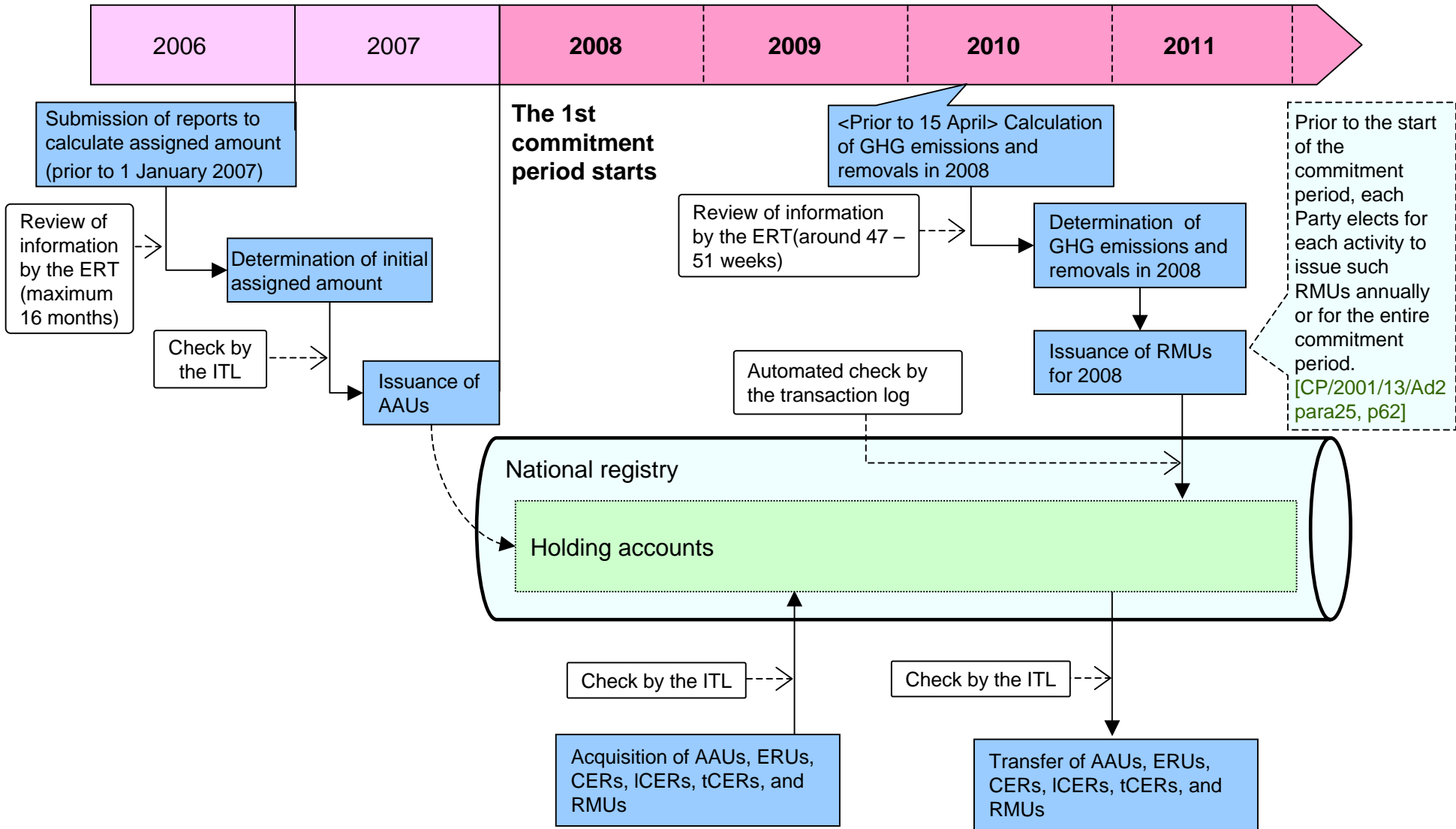
(3) Issuance of AAUs

◆ Each Party will issue a quantity of AAUs equivalent to its assigned amount in its national registry

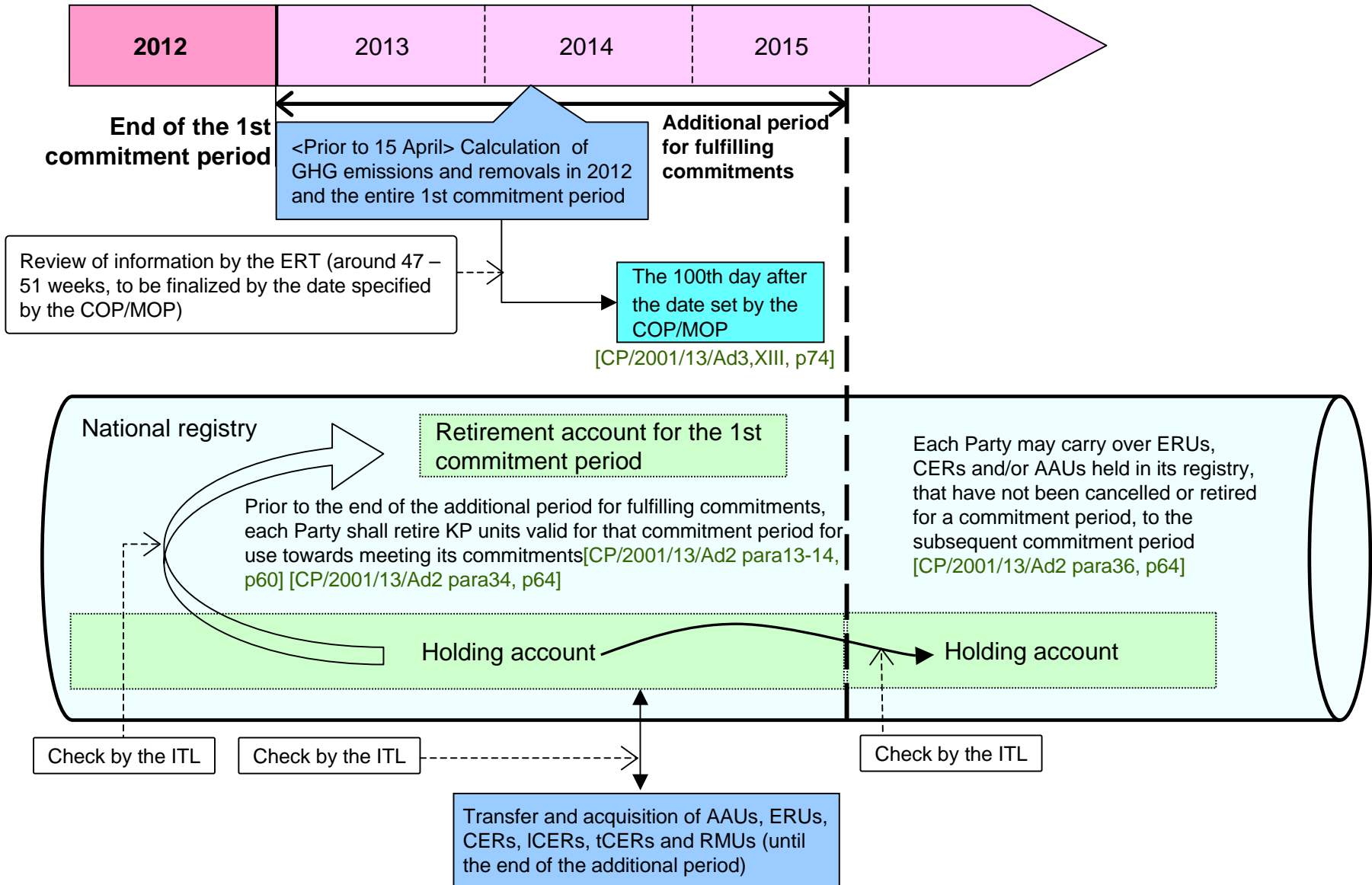
☞ AAUs should be issued prior to any transactions taking place for that commitment period

☞ For the 1st commitment period, the quality assessment needed for the purpose of determining eligibility shall be limited to the parts of the inventory pertaining to GHG emissions.

2. Issuance, transfer and acquisition of KP units



3. Retirement and carry-over of KP units



Attachment 1: Specific guidelines for completing the CDM-PDD, CDM-NMB and CDM-NMM

1-1. General Information on CDM-PDD, CDM-NMB and CDM-NMM [PDD guidelines ver2,p3]

CDM-PDD, CDM-NMB and CDM-NMM

- ◆ The CDM-PDD, CDM-NMB and CDM-NMM were developed by the EB in conformity with the relevant modalities and procedures for the PDD for CDM project activities as defined in Appendix B of CDM M&P
 - ☞ If project participants wish to submit a project activity for validation and registration, they shall submit a fully completed CDM-PDD.
 - ☞ If project participants wish to propose new baseline and monitoring methodologies they shall complete and submit the CDM-NMB, CDM-NMM and a draft CDM-PDD with only sections A-E filled.
- ◆ The CDM-PDD, CDM-NMB and CDM-NMM may be obtained electronically from the UNFCCC CDM web site <http://unfccc.int/cdm>,
- ◆ It is recommended that before or during the completion of the forms that project participants consult the most recent version of the “CDM-PDD Glossary of Terms”.
- ◆ Project participants should also consult the section “Guidance – clarifications” available on the UNFCCC CDM web site <http://unfccc.int/cdm>.

Revision of CDM-PDD, CDM-NMB and CDM-NMM

- ◆ The EB may revise the CDM-PDD, the CDM-NMB, and the CDM-NMM, if necessary.
 - ☞ Revisions come into effect, once adopted by the EB.
- ◆ Revisions to the CDM-PDD do not affect projects:
 - ☞ 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 of the adoption of the revised CDM-PDD
 - ☞ The EB will not accept documentation using previous versions of the CDM-PDD 6 months after the adoption of the new version.
- ◆ Revisions to the CDM-NMB and CDM-NMM do not affect new baseline and monitoring methodologies:
 - ☞ Submitted to the OEs prior to the adoption of the revised CDM-NMB and CDM-NMM;
 - ☞ Submitted to the OEs within a month of the adoption of the revised CDM-NMB and CDM-NMM.
 - ☞ The EB will not accept documentation using previous versions of the CDM-NMB and CDM-NMM 3 months after the adoption of the new versions.

Language and templates

- ◆ In accordance with the CDM M&P, the working language of the EB is English. The CDM-PDD, the CDM-NMB and the CDM-NMM shall therefore be completed and submitted in English language to the EB.
 - ☞ However, the CDM-PDD, CDM-NMB and CDM-NMM are available on the UNFCCC CDM web site for consultation in all 6 official languages of the United Nations.
- ◆ The CDM-PDD, CDM-NMB and CDM-NMM templates shall not be altered, that is, shall be completed using the same font without modifying its format, font, headings or logo.
 - ☞ Tables and their columns shall not be modified or deleted. Rows may be added, as needed.
- ◆ The CDM-PDD, CDM-NMB and CDM-NMM are not applicable to afforestation and reforestation (A/R) CDM project activities.

1-2. Specific guidelines for completing the Project Design Document (CDM-PDD)

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p14]

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 (maximum 1 page):

A.4.2. Category(ies) of project activity

A.4.3. Technology to be employed by the project activity

A.4.4. Brief explanation of how the anthropogenic emissions of anthropogenic GHGs by sources are to be reduced by the proposed CDM project activity, including why the emission reductions would not occur in the absence of the proposed project activity, taking into account national and/or sectoral policies and circumstances

A.4.4.1. Estimated amount of emission reductions over the chosen crediting period

A.4.5. Public funding of the project activity

A.2. Please include in the description

- the purpose of the project activity
- the view of the project participants of the contribution of the project activity to sustainable development (max. 1 page).

A.3. Please list project participants and provide contact information in Annex 1.

A.4.1.4. Please fill in the field and do not exceed 1 page.

A.4.2. Please use the list of categories of project activities and of registered CDM project activities by category available on the UNFCCC CDM web site, please specify the category(ies) of project activities into which this project activity falls. If no suitable category(ies) of project activities can be identified, please suggest a new category(ies) descriptor and its definition, being guided by relevant information on the UNFCCC CDM web site.

A.4.3. This section should include a description of how environmentally safe and sound technology and know how to be used is transferred to the Host Party.

A.4.4. Please explain briefly how anthropogenic greenhouse gas (GHG) emission reductions are to be achieved (detail to be provided in section B) and provide the estimate of anticipated total reductions in tonnes of CO₂ equivalent as determined in section E. Max. length 1 page.

A.4.4.1. Please indicate the chosen crediting period and provide the total estimation of emission reductions as well as annual estimates for the chosen crediting period.

A.4.5. In case public funding from Parties included in Annex I is involved, please provide in Annex 2 information on sources of public funding for the project activity from Parties included in Annex I which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties.

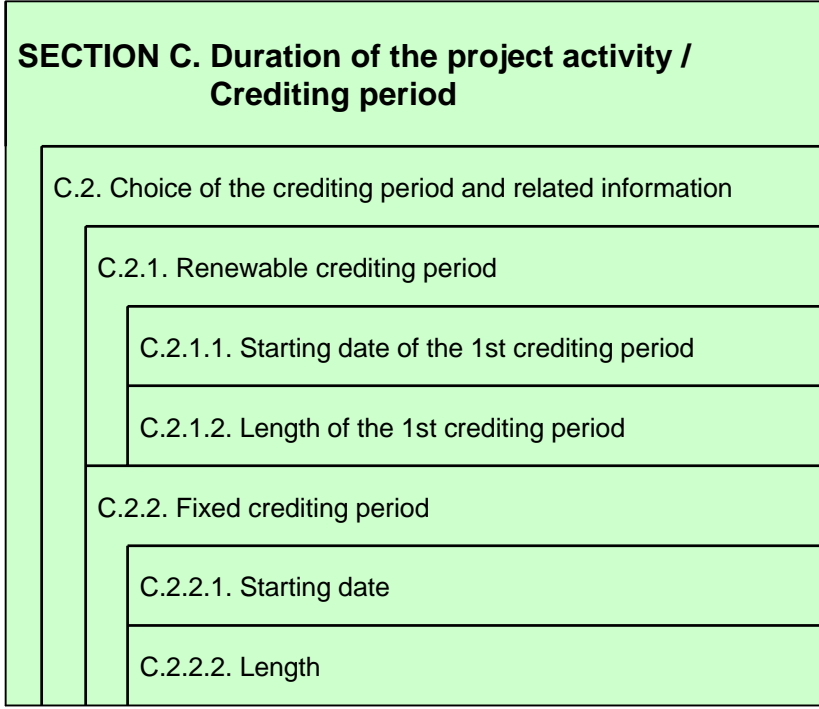
1-2. Specific guidelines for completing the CDM-PDD

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p16]

<p>SECTION B. Application of a baseline methodology</p>	<p>B.1. Please refer to the UNFCCC CDM web site for the title and reference list as well as the details of approved baseline methodologies2. Please note that the table “Baseline Information” contained in Annex 3 is to be prepared in parallel to completing the remainder of this section.</p>
<p>B.1. Title and reference of the approved baseline methodology applied to the project activity</p>	<p>B.1.1. Please justify the choice of methodology by showing that the proposed project activity meet the applicability conditions under which the methodology is applicable.</p>
<p>B.1.1. Justification of the choice of the methodology and why it is applicable to the project activity</p>	<p>B.2. Please explain the basic assumptions of the baseline methodology in the context of the project activity and show that the key methodological steps are followed in determining the baseline scenario. Provide the key information and data used to determine the baseline scenario (variables, parameters, data sources etc.) in table form.</p>
<p>B.2. Description of how the methodology is applied in the context of the project activity</p>	<p>B.3. Explanation of how and why this project is additional and therefore not the baseline scenario in accordance with the selected baseline methodology. Include 1) a description of the baseline scenario determined by applying the methodology, 2) a description of the project scenario, and 3) an analysis showing why the emissions in the baseline scenario would likely exceed emissions in the project scenario.</p>
<p>B.3. 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</p>	<p>B.5. Please attach detailed baseline information in Annex 3. Please provide date of completion in DD/MM/YYYY. Please provide contact information and indicate if the person/entity is also a project participant listed in Annex 1.</p>
<p>B.4. Description of how the definition of the project boundary related to the baseline methodology selected is applied to the project activity</p>	<p>C.1.1. The starting date of a CDM project activity is the date on which the implementation or construction or real action of a project activity begins. Project activities starting between 1 January 2000 the date of the registration of a 1st clean development mechanism project, if the project activity is submitted for registration before 31 December 2005; have to provide documentation, at the time of registration, showing that the starting date fell within this period.</p>
<p>B.5. Details of baseline information, including the date of completion of the baseline study and the name of person (s)/entity (ies) determining the baseline</p>	<p>C.1.2. Please state the expected operational lifetime of the project activity in years and months.</p>
<p>SECTION C. Duration of the project activity / Crediting period</p>	
<p>C.1. Duration of the project activity</p>	
<p>C.1.1. Starting date of the project activity</p>	
<p>C.1.2. Expected operational lifetime of the project activity</p>	

1-2. Specific guidelines for completing the CDM-PDD

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p18]



C.2. Please state whether the project activity will use a renewable or a fixed crediting period and complete C.2.1 or C.2.2 accordingly.
 Note that the crediting period may only start after the date of registration of the proposed activity as a CDM project activity. In exceptional cases, (see instructions for section C.1.1. above) the starting date of the crediting period may be prior to the date of registration of the project activity as provided for in paragraphs 12 and 13 of decision 17/CP.7, paragraph 1 (c) of decision 18/CP.9 and through any guidance by the Executive Board, available on the UNFCCC CDM web site.

C.2.1. Each crediting period shall be at most 7 years and may be renewed at most 2 times, provided that, for each renewal, a designated operational entity determines and informs the executive board that the original project baseline is still valid or has been updated taking account of new data where applicable;

C.2.1.1. Please state the dates in the following format: (DD/MM/YYYY).

C.2.1.2. Please state the length of the 1st crediting period in years and months.

C.2.2. Fixed crediting period shall be at most ten (10) years.

C.2.2.1. Please state the dates in the following format: (DD/MM/YYYY).

C.2.2.2. Please state the length of the crediting period in years and months.

SECTION D. Application of a monitoring methodology and plan

Where project participants wish to propose a new monitoring methodology, please complete form "Proposed New Methodology: Monitoring"(CDM-NMM)) in accordance with procedures for submission and consideration of proposed new methodologies (see Part III of these Guidelines). This section shall provide a detailed description of the monitoring plan, including an identification of the data and its quality with regard to accuracy, comparability, completeness and validity, taking into consideration any guidance contained in the methodology. The monitoring plan is to be attached in annex 4.

The monitoring plan needs to provide detailed information related to the collection and archiving of all relevant data needed to - estimate or measure emissions occurring within the project boundary, - determine the Baseline, and - identify increased emissions outside the project boundary.

The monitoring plan should reflect good monitoring practice appropriate to the type of project activity. The plan should follow the instructions and steps defined in the approved monitoring methodology. Project participants shall implement the registered monitoring plan and provide data, in accordance with the plan, through their monitoring report.

Please note that data monitored and required for verification and issuance are to be kept for 2 years after the end of the crediting period or the last issuance of CERs for this project activity, whatever occurs later.

1-2. Specific guidelines for completing the CDM-PDD

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p19]

SECTION D. Application of a monitoring methodology and plan	
D.1. Name and reference of approved monitoring methodology applied to the project activity	
D.2. Justification of the choice of the methodology and why it is applicable to the project activity	
D.2.1. Option 1: Monitoring of the emissions in the project scenario and the baseline scenario	
D.2.1.1. Data to be collected in order to monitor emissions from the project activity, and how this data will be archived	
D.2.1.2. Description of formulae used to estimate project emissions (for each gas, source, formulae/algorithm, emissions units of CO ₂ equ.)	
D.2.1.3. Relevant data necessary for determining the baseline of anthropogenic emissions by sources of GHGs within the project boundary and how such data will be collected and archived	
D.2.1.4. Description of formulae used to estimate baseline emissions (for each gas, source, formulae/algorithm, emissions units of CO ₂ equ.)	
D.2.2. Option 2: Direct monitoring of emission reductions from the project activity (values should be consistent with those in section E).	
D.2.2.1. Data to be collected in order to monitor emissions from the project activity, and how this data will be archived	
D.2.2.2. Description of formulae used to calculate project emissions (for each gas, source, formulae/algorithm, emissions units of CO ₂ equ.)	
D.2.3. Treatment of leakage in the monitoring plan	
D.2.3.1. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project activity	
D.2.3.2. Description of formulae used to estimate leakage (for each gas, source, formulae/algorithm, emissions units of CO ₂ equ.)	

D.1. Please refer to the UNFCCC CDM web site for the name and reference as well as details of approved methodologies. Where project participants wish to propose a new monitoring methodology, please complete the form for "Proposed New Methodology: Monitoring" (CDM-NMM) and subsequently complete, sections A-E of the CDM-PDD to demonstrate the application of the proposed new methodology to the project activity. If a national or international monitoring standard has to be applied to monitor certain aspects of the project activity, please identify this standard and provide a reference to the source where a detailed description of the standard can be found. Please fill sections D.2.2 or D.2.3 below in accordance with the approved monitoring methodology selected.

D.2. Please justify the choice of methodology by showing that the proposed project activity and the context of the project activity meet the conditions under which the methodology is applicable.

D.2.1.1. Description of data to be collected and how data will be archived. Data shall be archived for 2 years following the end of the crediting period. Please add rows to the table, as needed.

D.2.1.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

D.2.1.3. Description of data to be collected and how data will be archived. Data shall be archived for 2 years following the end of the crediting period. Please add rows to the table below, as needed.

D.2.1.4. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

D.2.2.1. Description of data to be collected and how data will be archived. Data shall be archived for 2 years following the end of the crediting period. Please add rows to the table below, as needed.

D.2.2.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

D.2.3.1. Monitored data shall be archived for 2 years following the end of the crediting period. Please add rows to the table below, as needed.

D.2.3.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

1-2. Specific guidelines for completing the CDM-PDD

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p21]

SECTION D. Application of a monitoring methodology and plan	
D.2.4. Description of formulae used to estimate emission reductions for the project activity (for each gas, source, formulae/algorithm, emissions units of CO ₂ equ.)	
D.3. Quality control (QC) and quality assurance (QA) procedures are being undertaken for data monitored	
D.4. Please describe the operational and management structure that the project operator will implement in order to monitor emission reductions and any leakage effects, generated by the project activity	
D.5. Name of person/entity determining the monitoring methodology	
SECTION E. Estimation of GHG emissions by sources	
E.1. Estimate of GHG emissions by sources	
E.2. Estimated leakage	
E.3. The sum of E.1 and E.2 representing the project activity emissions	
E.4. Estimated anthropogenic emissions by sources of greenhouse gases of the baseline	
E.5. Difference between E.4 and E.3 representing the emission reductions of the project activity	
E.6. Table providing values obtained when applying formulae above	
SECTION F. Environmental impacts	
F.1. Documentation on the analysis of the environmental impacts, including transboundary impacts	
F.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	

- D.2.4. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.
- D.3. Data items in tables contained in sections D.2.1 or D.2.2, as applicable.
- D.5. Please provide contact information and indicate if the person/entity is also a project participant listed in Annex 1 of this document.
- Please fill section E. following the selected baseline and monitoring methodologies.
- E.1. Please provide estimated anthropogenic emissions by sources of greenhouse gases of the project activity within the project boundary (for each gas, source, formulae/algorithm, emissions in units of CO₂ equivalent). Alternatively, provide directly estimated emission reductions due to the project activity.
- E.2. Please provide estimate of any leakage, defined as: the net change of anthropogenic emissions by sources of greenhouse gases which occurs outside the project boundary, and that is measurable and attributable to the project activity. Estimates should be given for each gas, source, formulae/algorithm, emissions in units of CO₂ equivalent.
- E.4. Estimates should be given for each gas, source, formulae/algorithm, emissions in units of CO₂ equivalent.
- E.6. The ex post calculation of baseline emission rates may only be used if proper justification is provided. Notwithstanding, the baseline emission rates shall also be calculated ex-ante and reported in the CDM-PDD.
- F.1. Please attach the documentation to the CDM-PDD.

1-2. Specific guidelines for completing the CDM-PDD

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p22]

<p>SECTION G. Stakeholders' comments</p>	
<p>G.1. Brief description how comments by local stakeholders have been invited and compiled</p>	<p>G.1. Please describe the process by which comments by local stakeholders have been invited and compiled. An invitation for comments by local stakeholders shall be made in an open and transparent manner, in a way that facilitates comments to be received from local stakeholders and allows for a reasonable time for comments to be submitted. In this regard, project participants shall describe a project activity in a manner which allows the local stakeholders to understand the project activity, taking into account confidentiality provisions of the CDM modalities and procedures.</p>
<p>G.2. Summary of the comments received</p>	<p>G.2. Please identify stakeholders that have made comments and provide a summary of these comments.</p>
<p>G.3. Report on how due account was taken of any comments received</p>	<p>G.3. Please explain how due account have been taken of comments received.</p>
<p>Annex 1. Contact information on participants in the project activity</p>	<p>Annex 1. Please copy and paste table as needed.</p>
<p>Annex 2. Information regarding public funding</p>	<p>Annex 2. Please provide information from Parties included in Annex I on sources of public funding for the project activity which shall provide an affirmation that such funding does not result in a diversion of official development assistance and is separate from and is not counted towards the financial obligations of those Parties.</p>
<p>Annex 3. Baseline information</p>	
<p>Annex 4. Monitoring plan</p>	<p>Annex 3. Please provide a table containing the key elements used to determine the baseline for the project activity including elements such as variables, parameters and data sources. For approved methodologies you may find a draft table on the UNFCCC CDM web site.</p>

1-3. Specific guidelines for completing the proposed new methodology: baseline (CDM-NMB)

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p28]

SECTION A. Identification of methodology

A.1. Title of the proposed methodology

A.2. List of category(ies) of project activity to which the methodology may apply

A.3. Conditions under which the methodology is applicable to CDM project activities

A.4. What are the potential strengths and weaknesses of this proposed new methodology?

SECTION B. Overall summary description**SECTION C. Choice of and justification as to why one of the baseline approaches listed in paragraph 48 of CDM modalities and procedures is considered to be the most appropriate**

C.1. General baseline approach

C.2. Justification of why the approach chosen in 3.1 above is considered the most appropriate

SECTION D. Explanation and justification of the proposed new baseline methodology

D.1. Explanation of how the methodology determines the baseline scenario (that is, indicate the scenario that reasonably represents the anthropogenic emissions by sources of GHG that would occur in the absence of the proposed project activity)

D.2. Criteria used in developing the proposed baseline methodology

A.1. Provide an unambiguous title for a proposed methodology. Avoid project-specific titles. The title, once approved, should allow project participants to get an indication of the applicability of an approved methodology.

A.2. Use the list of categories of project activities and of registered CDM project activities by category available on the UNFCCC CDM web site, please specify the category(ies) of project activities for which this proposed new methodology may be used. If no suitable category(ies) of project activities can be identified, please suggest a new category(ies) descriptor and its definition, being guided by relevant information on the UNFCCC CDM web site.

A.3. Provide conditions under which the methodology is applicable to CDM project activities: (e.g. circumstances, region, data availability, resource availability). Please indicate if an approved methodology exists for the same conditions of application.

A.4. Please outline how the accuracy and completeness of the new methodology compares to that of approved methodologies, in particular with regard to approved methodologies for the same conditions of application.

Summarize the description of the proposed new methodology. Provide information on how baseline emissions are determined. Provide step by step instructions for the baseline methodology, including how through the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario (detailed explanation of the methodology to be provided in section 6). Please do not exceed more than 1 page.

C.1. Please check a single option.
If the 3rd approach is being checked kindly refer to additional guidance provide by the Executive Board (see guidance and clarifications by the Executive Board on the "Guidance clarifications" web page of the UNFCCC CDM web site).

D.1. Please state the basic assumptions of the baseline methodology and describe the key analytical steps that should be followed in determining the baseline scenario. Describe how the methodology determines the most likely scenario the baseline scenario from among the plausible scenario alternatives.

1-3. Specific guidelines for completing the CDM-NMB

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p29]

SECTION D. Explanation and justification of the proposed new baseline methodology

D.3. Explanation of how, through the methodology, it can be demonstrated that a project activity is additional and therefore not the baseline scenario (section B.3 of the PDD)

D.4. How national and/or sectoral policies and circumstances can be taken into account by the methodology

D.5. Project boundary (gases and sources included, physical delineation)

D.6. Elaborate and justify formulae/algorithms used to determine the baseline scenario. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates)

D.7. Elaborate and justify formulae/algorithms used to determine the emissions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates)

D.8. Description of how the baseline methodology addresses any potential leakage of the project activity

D.9. Elaborate and justify formulae/algorithms used to determine the emissions reductions from the project activity. Variables, fixed parameters and values have to be reported (e.g. fuel(s) used, fuel consumption rates)

SECTION E. Data sources and assumptions

E.1. Describe parameters and or assumptions (including emission factors and activity levels)

E.2. List of data used indicating sources (e.g. official statistics, expert judgment, proprietary data, IPCC, commercial and scientific literature) and precise references and justify the appropriateness of the choice of such data

E.3. Vintage of data (e.g. relative to starting date of the project activity)

E.4. Spatial level of data (local, regional, national)

SECTION F. Assessment of uncertainties (sensitivity to key factors and assumptions)

SECTION G. Explanation of how the baseline methodology allows for the development of baselines in a transparent and conservative manner

D.3. Paragraph 43 of the CDM modalities and procedures stipulates that a CDM project activity is additional if its emissions are below those of its baseline (see guidance by the EB at its 5th meeting). "The baseline for a CDM project activity is the scenario that reasonably represents the anthropogenic emissions by sources of greenhouse gases that would occur in the absence of the proposed project activity" (paragraph 44 CDM modalities and procedures).

Please refer to guidance and clarifications on baseline and monitoring methodologies in the Guidance/Clarifications section of the UNFCCC CDM web site.

Please also include information on algorithms and formulae, if used.

D.5. Please describe and justify the project boundary bearing in mind that it shall encompass all anthropogenic emissions by sources of greenhouse gases under the control of the project participants that are significant and reasonably attributable to the project activity. Please describe and justify which the boundary.

D.8. Please note: Leakage is defined as the net change of anthropogenic emissions by sources of greenhouse gases which occurs outside the project boundary and which is measurable and attributable to the CDM project activity.

Please explain how leakage is to be estimated ex-ante and indicate in the monitoring methodology form (CDM-NMM) how it is to be monitored ex-post. Explain if leakage will be assumed or calculated either as a relative amount (i.e. percentage) of the total emission reductions due to the project activity or as an absolute amount of emissions.

Please describe algorithms, data, information and assumptions and provide the total estimate of leakage.

Also include formulae and algorithms to be used in section E of the CDM-PDD attached.

Please highlight any factors and assumptions that would have a significant impact on the baseline and/or the calculation of baseline emission levels and how uncertainty related to those assumptions and factors are to be addressed.

1-4. Specific guidelines for completing the proposed new methodology: monitoring (CDM-NMM)

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p34]

SECTION A. Identification of methodology

A.1. Title of the proposed methodology

A.2. List of category(ies) of project activity to which the methodology may apply

A.3. Conditions under which the methodology is applicable to CDM project activities

A.4. What are the potential strengths and weaknesses of this proposed new methodology?

A.1. Provide an unambiguous title for a proposed methodology. Avoid project-specific titles. The title, once approved, should allow project participants to get an indication of the applicability of an approved methodology.

A.2. Using the list of categories of project activities and of registered CDM project activities by category available on the UNFCCC CDM web site, please specify the category(ies) of project activities for which this proposed new methodology can be used. If no suitable category(ies) of project activities can be identified, please suggest a new category(ies) descriptor and its definition, being guided by relevant information on the UNFCCC CDM web site.

A.3. Provide conditions under which the methodology is applicable to CDM project activities: (e.g. circumstances, region, data availability, resource availability). Please indicate if an approved methodology exists for the same conditions of application.

A.4. Please outline how the accuracy and completeness of the new methodology compares to that of approved methodologies, in particular with regard to approved methodologies for the same conditions of application.

SECTION B. Proposed new monitoring methodology

B.1. Brief description of the new methodology

B.2. Option 1: Monitoring of the emissions in the project scenario and the baseline scenario

B.2.1. Data to be collected or used in order to monitor emissions from the project activity, and how this data will be archived

Please provide a detailed description of the monitoring plan, including the identification of data and its quality with regard to accuracy, comparability, completeness and validity. Different types of project activities will have different monitoring requirements. For some project activities, emission reductions are calculated as the difference between the project activity and the baseline emissions. For others emission reductions are monitored directly. Depending on the type of project activity, please fill out their option 1 or option 2.

Option 1 (section 2.2): Please describe the data and information that will be collected in order to monitor the emissions in the baseline scenario and the project scenario.
Option 2 (section 2.3): Describe the data and information that will be collected in order to directly monitor and calculate the emission reductions from the project activity.

B.1. Please outline the main points and give a reference to a detailed description of the monitoring methodology.

B.2.1. Monitored data shall be archived for 2 years following the end of the crediting period. Please add rows to the table below, as needed.
Header of tables and titles of columns shall not be modified and columns shall not be deleted. Please add rows to the table below, as needed.

1-4. Specific guidelines for completing the CDM-NMM

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p35]

SECTION B. Proposed new monitoring methodology

B.2.2. Description of formulae used to estimate project emissions (for each gas, source, formulae/algorithm, emissions units of CO₂ equ.)

B.2.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

B.2.3. Relevant data necessary for determining the baseline of anthropogenic emissions by sources of greenhouse gases (GHG) within the project boundary and how such data will be collected and archived

B.2.3. Monitored data shall be archived for 2 years following the end of the crediting period. Header of tables and titles of columns shall not be modified and columns shall not be deleted. Please add rows to the table below, as needed.

B.2.4. Description of formulae used to estimate baseline emissions (for each gas, source, formulae/algorithm, emissions units of CO₂ equ.)

B.2.4. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

B.3. Option 2: Direct monitoring of emission reductions from the project activity

B.3. Values should be consistent with those in section E of the CDM-PDD.

B.3.1. Data to be collected or used in order to monitor emissions from the project activity, and how this data will be archived

B.3.1. Monitored data shall be archived for 2 years following the end of the crediting period. Header of tables and titles of columns shall not be modified and columns shall not be deleted. Please add rows to the table below, as needed.

B.3.2. Description of formulae used to calculate project emissions (for each gas, source, formulae/algorithm, emissions units of CO₂ equ.)

B.3.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

B.4. Treatment of leakage in the monitoring plan

B.4. Please explain if leakage will be monitored during the implementation of the project activity. If relevant, please explain and justify if leakage will not be estimated ex-post. Explain if leakage will be calculated as the difference between emissions occurring outside the boundaries of the project and emissions in the baseline scenario, or if leakage will be monitored directly.

B.4.1. If applicable, please describe the data and information that will be collected in order to monitor leakage effects of the project activity

B.4.1. Monitored data shall be archived for 2 years following the end of the crediting period. Header of tables and titles of columns shall not be modified and columns shall not be deleted. Please add rows to the table below, as needed.

B.4.2. Description of formulae used to estimate leakage (for each gas, source, formulae/algorithm, emissions units of CO₂ equ.)

B.4.2. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

1-4. Specific guidelines for completing the CDM-NMM

(Version 02 - in effect as of 1 July 2004) [PDD guidelines ver2,p36]

SECTION B. Proposed new monitoring methodology

- B.5. Description of formulae used to estimate emission reductions for the project activity (for each gas, source, formulae/algorithm, emissions units of CO₂ equ.)
- B.6. Assumptions used in elaborating the new methodology
- B.7. Please indicate whether quality control (QC) and quality assurance (QA) procedures are being undertaken for the items monitored
- B.8. Has the methodology been applied successfully elsewhere and, if so, in which circumstances?

B.5. Formulae should be consistent with the formulae outlined in the description of the baseline methodology.

B.6. Please list information used in the calculation of emissions which is not measured or calculated, for example use of any default emission factors.

B.7. See tables in sections B.2 or B.3 and B.4 above.
Header of tables and titles of columns shall not be modified and columns shall not be deleted. Rows are allowed to be added, as needed.

The tool provides a general framework for demonstrating and assessing additionality. Project participants proposing new baseline methodologies may incorporate this consolidated tool in their proposal. Project participants may also propose other tools for the demonstration of additionality to the EB for its consideration.

Step 0. Preliminary screening based on the starting date of the project activity

If project participants wish to have the crediting period starting prior to the registration of their project activity, they shall provide:

- ☞ Evidence that the starting date of the CDM project activity falls within the definition of a crediting period (see p29).
- ☞ Evidence that the incentive from the CDM was seriously considered in the decision. This evidence shall be based on (preferably official, legal and/or other corporate) documentation that was available to 3rd parties at, or prior to, the start of the project activity.

↓ Pass

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(s) available to the project participants 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(s) shall be in compliance with all applicable legal and regulatory requirements. If an alternative does not comply with all 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 project participants that is in compliance with all regulations with which there is general compliance, then the proposed CDM project activity is not additional.

↓ Pass

Step 2 or Step 3

Step 2. Investment analysis

Determine whether the proposed project activity is economically or financially less attractive than other alternatives 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.

Sub-step 3a. Identify barriers that would prevent the implementation of type of the proposed project activity:

- ☞ Establish that there are 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 and barriers due to prevailing practice.
- ☞ 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.

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

Step 5. Impact of CDM registration

Explain how the approval and registration of the project activity as a CDM activity, and the attendant benefits and incentives derived from the project activity, will alleviate the economic and financial hurdles (Step 2) or other identified barriers (Step 3) and thus enable the project activity to be undertaken.

Pass

The proposed CDM project activity is additional

Attachment 3: Approved consolidated baseline methodology

3-1. Consolidated baseline methodology for landfill gas project activities (ACM0001) [EB15 Rep Anx1]

Applicability

This methodology is applicable to landfill gas capture project activities, where the baseline scenario is the partial or total atmospheric release of the gas and the project activities such as the captured gas is flared or used to produce energy (e.g. electricity/thermal energy).

- ☞ In case emission reductions are claimed for displacing or avoiding energy generation from other sources, a baseline methodology for electricity and/or thermal energy displaced shall be provided or an approved one used, including the ACM0002.
- ⇒ If capacity of electricity generated is less than 15MW, and/or thermal energy displaced is less than 54 TJ (15GWh), small-scale methodologies can be used.

Emission reductions (see p83)

Additionality

- ☞ Tool for the demonstration and assessment of additionality shall apply.

Project boundary

- ☞ The project boundary is the site of the project activity where the gas is captured and destroyed/used.
- ☞ Possible CO₂ emissions resulting from combustion of other fuels than the methane recovered should be accounted as project emissions.
- ☞ In addition, electricity required for the operation of the project activity, including transport of heat, should be accounted and monitored.
- ☞ Where the project activity involves electricity generation, only the net quantity of electricity fed into the grid should be used to account for emission reductions due to displacement of electricity in other power plants.
- ☞ Where the project activity does not involve electricity generation, project participants should account for CO₂ emissions by multiplying the quantity of electricity required with the CO₂ emissions intensity of the electricity.

Leakage

- ☞ No leakage effects need to be accounted under this methodology.

Monitoring

- ☞ This baseline methodology shall be used in conjunction with the approved monitoring methodology ACM0001 (“Consolidated monitoring methodology for landfill gas project activities”). .

3-1. Consolidated baseline methodology for landfill gas project activities (ACM0001)

Emission reductions

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

=

The amount of methane destroyed/combusted during the year

+

CO₂ emission reduction by the electricity displaced during the year

+

CO₂ emission reduction by the thermal energy displaced during the year

$$(MD_{project, y} - MD_{reg, y}) * GWP_{CH_4}$$

$$EG_y * CEF_{electricity, y}$$

EG_y:the net quantity of electricity displaced during the year measured in [MWh]
CEFelectricity, y:CO₂ emissions intensity of the electricity displaced determined by other the methodology in [t-CO₂equ/MWh]

$$ET_y * CEF_{thermal, y}$$

ET_y:the net quantity of thermal energy displaced during the year measured in [TJ]
CEFthermal, y:CO₂ emissions intensity of the thermal energy displaced measured in [t-CO₂equ/TJ]

The methane destroyed by the project activity during a year

The amount of methane that would have been destroyed/combusted (as per a regulatory or contractual requirements) during the year in the absence of the project activity

Global Warming Potential value for methane for the 1st commitment period is 21 [t-CO₂equ/t-CH₄]

In cases where regulatory or contractual requirements do not specify MD_{reg, y}, an “Adjustment Factor” (AF) shall be used and justified, taking into account the project context
MD_{reg, y} = MD_{project, y} * AF

$$MD_{project, y} = MD_{flared, y} + (MDelectricity, y + MDthermal, y)$$

The quantity of methane destroyed by generation of electricity and/or thermal energy
MDelectricity, y = LFG_{electricity, y} * WCH_{4, y} * DCH_{4, y}
MDthermal, y = LFG_{thermal, y} * WCH_{4, y} * DCH_{4, y}
LFG_{electricity, y} :The quantity of landfill gas fed into electricity generator during the year measured in [m³]
LFG_{thermal, y} :The quantity of landfill gas fed into the boiler during the year measured in [m³]
WCH_{4, y} :The average methane fraction of the landfill gas as measured during the year and expressed as a fraction in [m³-CH₄/m³-LFG]
DCH₄ : The methane density expressed in [t-CH₄/m³-CH₄]

The quantity of methane destroyed by flaring
MD_{flared, y} = LFG_{flare, y} * WCH_{4, y} * DCH_{4, y} * FE
LFG_{flare, y} :The quantity of landfill gas flared during the year measured in [m³]
WCH_{4, y} :The average methane fraction of the landfill gas as measured during the year and expressed as a fraction in [m³-CH₄/m³-LFG]
FE :The flare efficiency (the fraction of the methane destroyed)
DCH₄ : The methane density expressed in [t-CH₄/m³-CH₄]

This methodology might be revised in order to incorporate considerations by the EB on the impact of oxidation of biogas in the calculation of emission reductions of methane (CH₄) for landfill gas project activities. Any revisions shall not affect CDM project activities already registered using this current version of the methodology.

3-2. Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM0002)

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, 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.

Emission reductions and baseline (see p85)

Additionality

- ☞ Tool for the demonstration and assessment of additionality shall apply.

Project boundary

- ☞ For the baseline determination, project participants shall only account CO₂ emissions from electricity generation in fossil fuel fired power that is displaced due to the project activity.
 - ⇒ For geothermal project activities, project participants shall account fugitive emissions of methane and CO₂ from non-condensable gases contained in geothermal steam and CO₂ emissions from combustion of fossil fuels required to operate the geothermal power plant.
- ☞ 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 (see p83), a (regional) project electricity system is defined by the spatial extent of the power plants that can be dispatched without significant transmission constraints. In determining the project electricity system, project participants should justify their assumptions.
- ☞ Electricity transfers from connected electricity systems to the project electricity system are defined as electricity imports and electricity transfers to connected electricity systems are defined as electricity exports.
 - ⇒ For the purpose of determining the emission factor of the baseline emissions, project participants shall take into account electricity imports and exports. (for the detail, see [EB15 Rep Anx2,p2])

Leakage

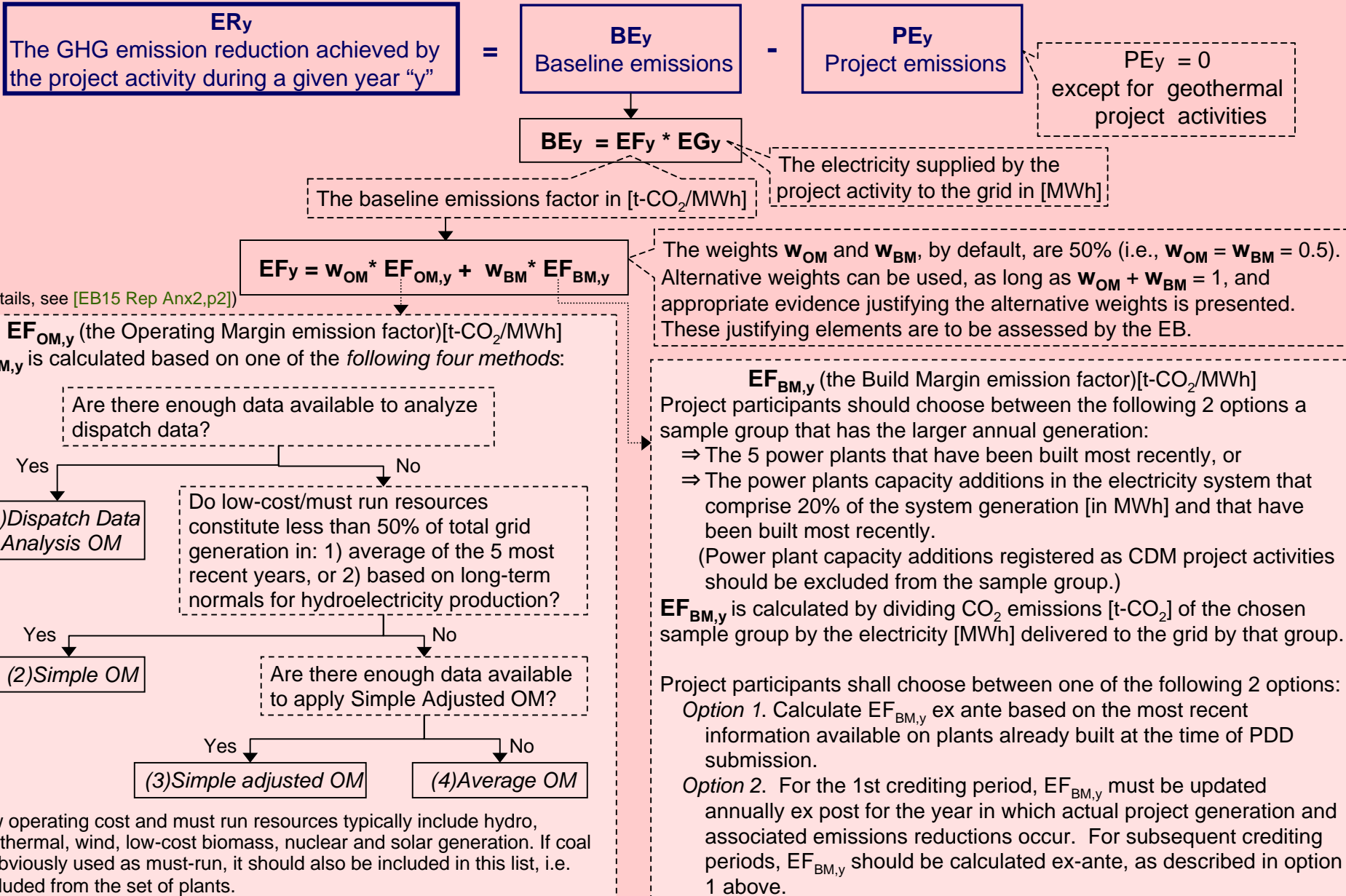
- ☞ Project participants do not need to consider emissions arising due to activities such as power plant construction, fuel handling (extraction, processing, and transport), and land inundation as leakage in applying this methodology.

Monitoring

- ☞ This baseline methodology shall be used in conjunction with the approved monitoring methodology ACM0002 (Consolidated monitoring methodology for grid-connected electricity generation from renewable sources).

3-2. Consolidated baseline methodology for grid-connected electricity generation from renewable sources (ACM0002)

Emission reductions



Attachment 4: Examples of simplified baseline and monitoring methodologies for SSC

Example 1

Type I.A. Renewable energy projects: Electricity generation by the user

Technology/measure

☞ This category comprises renewable energy generation units that supply individual households or users. Upgrading of existing equipment is not allowed. These units include technologies such as solar power, hydropower, wind power, and other technologies that produce electricity all of which is used on-site by the user, such as solar home systems, and wind battery chargers.

⇒ The renewable generating units may be new or replace existing fossil fuel fired generation. The capacity of these renewable energy generators shall not exceed 15 MW.

⇒ Combined heat and power (co-generation) systems are eligible under categories I.C and I.D.

Boundary

☞ The physical, geographical site of the renewable energy generating unit and the equipment that uses the electricity produced delineates the project boundary.

Baseline

$$\text{Baseline emissions} = (\text{Annual energy baseline [kWh/year]}) \times (\text{CO}_2 \text{ emission coefficient for the fuel displaced [kg-CO}_2\text{/kWh]})$$

(The estimated annual output of the renewable energy technologies [kWh/year]) / (1- fraction (%))

Average technical distribution losses that would have been observed in diesel powered mini-grids in isolated areas. A reasonable default value for distribution losses on low voltage rural distribution grid could be **20%**.

IPCC default values for emission coefficients may be used. A default value **0.9 kg CO₂/kWh**, which is derived from diesel generation units, may be used. A higher emissions factor may be used, with adequate justification.

Note: There are 2 options to calculate annual energy baseline. The other option is described in [CP/2002/7/Ad3 ApxB \[Version 05: 25 February 2005\]](#).

Leakage

☞ If the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered.

Monitoring

☞ (a) An annual check of all systems or a sample thereof to ensure that they are still operating (other evidence of continuing operation, such as on-going rental/lease payments could be a substitute).

or

☞ (b) Metering the electricity generated by all systems of a sample thereof.

Example 2

Type I.D. Renewable electricity generation for a grid

Technology/measure

- ☞ This category comprises renewable energy generation units, such as photovoltaics, hydro, tidal/wave, wind, geothermal, and biomass, that supply electricity to an electricity distribution system that is or would have been supplied by at least one fossil fuel or non-renewable biomass fired generating unit.
 - ⇒ If the unit added has both renewable and non-renewable components, the eligibility limit of 15MW for a SSC project activity applies only to the renewable component. If the unit added co-fires [non-]renewable biomass and fossil fuel, the capacity of the entire unit shall not exceed the limit of 15MW.
 - ⇒ Biomass combined heat and power (co-generation) systems that supply electricity to a grid are included in this category. To qualify under this category, the sum of all forms of energy output shall not exceed 45 MW_{thermal}.

Boundary

- ☞ The project boundary encompasses the physical, geographical site of the renewable generation source.

Baseline

Baseline emissions = (the kWh produced by the renewable generating unit [kWh]) x (CO₂ emission coefficient [kg-CO₂/kWh])

The average of the “approximate operating margin” and the “build margin”

or

The weighted average emissions [kg-CO₂/kWh] of the current generation mix

The weighted average emissions [kg-CO₂/kWh] of all generating sources serving the system, excluding hydro, geothermal, wind, low-cost biomass, nuclear and solar generation.

The weighted average emissions [kg-CO₂/kWh] of recent capacity additions to the system, which capacity additions are defined as the greater [in MWh] of **most recent 20%** of existing plants or the **5 most recent plants**.

Note: For a system where all fossil fuel fired generating units use fuel oil or diesel fuel, an emission coefficient is a modern diesel generating unit of the relevant capacity operating at optimal load as given in Table I.D.1. in CP/2002/7/Ad3 ApxB [Version 05: 25 February 2005].

Leakage

- ☞ If the energy generating equipment is transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered.

Monitoring

- ☞ Monitoring shall consist of metering the electricity generated by the renewable technology. In the case of co-fired plants, the amount of biomass input and its energy content shall be monitored.

Example 3

Type II.C. Demand-side energy efficiency programmes for specific technologies

Technology/measure

- ☞ This category comprises programmes that encourage the adoption of energy-efficient equipment, lamps, ballasts, refrigerators, motors, fans, air conditioners, appliances, etc. at many sites.
- ☞ These technologies may replace existing equipment or be installed at new sites.
- ☞ The aggregate energy savings by a single project may not exceed the equivalent of 15 GWh per year.

Boundary

- ☞ The project boundary is the physical, geographical location of each measure (each piece of equipment) installed.

Baseline

Baseline emissions = (Annual energy baseline [kWh/year]) x (CO₂ emission coefficient [kg-CO₂/kWh])

$$\left(\sum_i (n_i * p_i * o_i) \text{ [kWh/year]} \right) / (1 - \text{fraction} [\%])$$

n_i = the number of installed devices

p_i = the power of the devices replaced

⇒ In the case of a retrofit programme, “power” is the weighted average of the devices replaced.

⇒ In the case of new installations, “power” is the weighted average of devices on the market.

o_i = the average annual operating hours of the installed devices.

Fraction is average technical distribution losses for the grid serving the locations where the devices are installed.

An emission coefficient is calculated in accordance with provisions of category I.D projects.

Note: If the energy displaced is a fossil fuel, see CP/2002/7/Ad3 ApxB [Version 05: 25 February 2005].

Leakage

- ☞ If the energy efficiency technology is equipment transferred from another activity, leakage calculation is required.

Monitoring

Recording the “power” of the device installed using nameplate data or bench tests of a sample of the units installed and metering a sample of the units installed for their operating hours using run time meters.

or

Metering the “energy use” of an appropriate sample of the devices installed. For technologies that represent fixed loads while operating, such as lamps, the sample can be small while for technologies that involve variable loads, such as air conditioners, the sample may need to be relatively large.

- ☞ In either case, monitoring shall include annual checks of a sample of non-metered systems to ensure that they are still operating (other evidence of continuing operation, such as on-going rental/lease payments could be a substitute).
- ☞ If the devices installed replace existing devices, the number and “power” of the replaced devices shall be recorded and monitored.

Example 4

Type III. D. Methane recovery

Technology/measure

- ☞ This project category comprises methane recovery from coalmines, agro-industries, landfills, wastewater treatment facilities and other sources. Measures shall both reduce anthropogenic emissions by sources and directly emit less than 15,000 t-CO₂ equivalent annually.
- ☞ CO₂ emissions from combustion of non-biogenic methane shall be accounted for in the project activity.

Boundary

- ☞ The project boundary is the physical, geographical site of the methane recovery facility.

Baseline

Baseline emissions = [the amount of methane that would be emitted during the crediting period in the absence of the project activity]

The baseline shall cover only the capture and flaring that would not have happened in the absence of the project activity.

In the case of landfill gas, waste gas, waste water treatment and agro-industries projects:
 If the recovered methane is used for electricity generation, the project activity is also eligible under category I.D.
 If the recovered methane is used for heat generation it is also eligible under category I.C.
 In these cases project participants may submit 1 single project design document for all of the components of the project activity.

Leakage

- ☞ No leakage calculation is required.

Monitoring

- ☞ The amount of methane recovered and used as fuel or combusted shall be monitored, using flow meters and analyzing the methane content of the combusted gases either online, or with samples taken at least quarterly, and more frequently if the results show significant deviations from previous values.
- ☞ Regular maintenance should ensure optimal operation of flares. The flare efficiency, defined as the fraction of time in which the gas is combusted in the flare, multiplied by the efficiency of the flaring process, shall be monitored.
- ☞ Flow meters, sampling devices and gas analyzers shall be subject to regular maintenance, testing and calibration to ensure accuracy.

Attachment 5: The list of sectoral scope

Scope Number	Sectoral Scope	Approved Methodologies	Approved Small Scale Methodologies		
1	Energy industries (renewable - / non-renewable sources)	ACM0002 AM0004 AM0005 AM0007 AM0010 AM0014 AM0015 AM0019	AMS-I.A. AMS-I.D.	AMS-I.B. AMS-II.B.	AMS-I.C.
2	Energy distribution		AMS-II.A.		
3	Energy demand	AM0017 AM0018 AM0020	AMS-II.B.	AMS-II.C.	AMS-II.E.
4	Manufacturing industries	AM0007 AM0008 AM0014	AMS-II.D.		
5	Chemical industries	AM0021			
6	Construction				
7	Transport		AMS-III.C.		
8	Mining/mineral production				
9	Metal production				
10	Fugitive emissions from fuels (solid, oil and gas)	AM0009	AMS-III.D.		
11	Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride	AM0001			
12	Solvent use				
13	Waste handling and disposal	ACM0001 AM0002 AM0003 AM0006 AM0010 AM0011 AM0012 AM0013 AM0016	AMS-III.D.	AMS-III.E.	
14	Afforestation and reforestation				
15	Agriculture	AM0006 AM0016	AMS-III.A.		

Attachment 6: Glossary

AAU	Assigned Amount Unit
ACM	Approved Consolidated Methodology
AIE	Accredited Independent Entity
AM	Approved Methodology
A/R CDM	Afforestation and Reforestation Project Activities under the Clean Development Mechanism
AR	Afforestation and Reforestation
Art.6-SC	Article 6 Supervisory Committee
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
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	the CDM Executive Board
EIT	Economies in Transition
ERT	Expert Review Team
ERU	Emission Reduction Unit
GHG	Greenhouse Gas
GWP	Global Warming Potential
HFCs	Hydrofluorocarbon
IE	Independent Entity
IET	International emissions trading under the Kyoto Protocol
IPCC	Intergovernmental Panel on Climate Change
ITL	International Transaction Log
JI	Joint Implementation
KM	Kyoto Mechanisms
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
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
SSC	Small Scale CDM
UNFCCC	United Nations Framework Convention on Climate Change



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