THE CLEAN DEVELOPMENT MECHANISM

GUIDE - 2009

This revised and expanded version of the Guide to the Clean Development Mechanism (CDM) was commissioned by the Ministry of Science and Technology (Ministério da Ciência e Tecnologia, MCT) and drawn up under the sponsorship of the United Nations Development Programme (UNDP). The contents were revised with the direct assistance of the MCT and the United Nations Conference on Trade and Development (UNCTAD). Publication was sponsored by the Brazilian Social and Economic Development Bank (BNDES).

The CDM is the sole mechanism through which industrialized countries with quantified emission reduction and limitation commitments (commonly known as "targets"), established by the Kyoto Protocol, can offset part of these targets by acquiring Certified Emission Reductions (CERs) generated by CDM projects in developing countries.

Given that the first commitment period defined by the Kyoto Protocol (2008-2012) began on January 1, 2008, the window of opportunity in relation to the CDM is still open. In addition, during the ongoing negotiations, the Parties to the Protocol have manifested their interest in its continuation after 2012, more specifically in the second commitment period.

This Guide has three main objectives: (i) to provide information to all those interested in CDM project activities; (ii) to detail the specific regulations governing the submission of CDM project activities in Brazil; and (iii) to facilitate an understanding of the process and, consequently, promote the development of CDM projects in the country.

Chapter 1 outlines the general context of the international efforts to deal with the challenge of global climate change from both the scientific and political point of view. For those interested in developing CDM project activities, Chapter 2 deals directly with the CDM and Chapter 3 with the procedures for submitting such projects to the Interministerial Commission on Climate Change (Comissâo Interministerial de Mudança Global do Clima – CIMGC) – in order to receive a Letter of Approval from the Brazilian government.

The Guide's contents are based on: (i) CDM-related decisions by the Conferences of the Parties (COPs) and the Conferences of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOPs) up to COP 14 (COP/MOP 4) in Poznan, 2008; (ii) resolutions of the CDM Executive Board (EB) up to its 46th meeting in March 2009. Other sources include the BNDES publication entitled Efeito Estufa e a Convenção sobre Mudança do Clima (The Greenhouse Effect and the Convention on Climate Change) and the 2002 MCT publication entitled O Mecanismo de Desenvolvimento Limpo – Guia de Orientação (The Clean Development Mechanism): A Brazilian Implementation Guide), coordinated by the Getúlio Vargas Foundation (FGV) and sponsored by UNCTAD and the BNDES.

Finally, it should be noted that the CDM regulations are dynamic, reflecting not only the COP/MOP negotiations, but also the resolutions taken by the periodic meetings of the CDM Executive Board. Consequently, new decisions may alter the contents of this Guide. Although the principles, rules and overall framework of the CDM are already defined, certain regulations are specific to the first commitment period, from 2008 to 2012, and may be renegotiated for subsequent periods.

Different parties were consulted during the drafting of the Guide in order to ensure that the main issues and questions of interest to potential readers were addressed, always aiming to present the CDM rules and procedures in a clear and concise manner. In Brazil these rules are rigorously applied in order to ensure the reduction and/or removal of greenhouse gases from the atmosphere, thereby preserving the environmental integrity of the Kyoto Protocol and the acknowledged quality of the projects implemented in the country.

Isaura Frondizi

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FOREWORD

I am deeply honored to have been asked to write the foreword to the 2009 edition of the CDM Guide, an essential document for all those involved in activities related to the Clean Development Mechanism. This concise, but comprehensive, work has been coordinated by Isaura Frondizi, who has a profound knowledge of the subject.

For the developing countries, the CDM is the most visible face of the Kyoto Protocol and the struggle against climate change. In Brazil, as elsewhere, a series of meticulously prepared and carefully monitored CDM projects have reduced greenhouse gas emissions, generating certified emission reductions, or carbon credits. For the local business community, whose dynamism has put Brazil in third place in terms of CDM projects, this is a unique opportunity to make production more sustainable and obtain the necessary financing to do so. It is, in fact, a win-win situation.

That is not all, however. The CDM has also proved to be an extraordinarily effective mechanism for encouraging good practices, promoting the dissemination of knowledge, and fostering the adoption of production standards that are more in tune with the new sustainability paradigms, in turn becoming increasingly evident in market demand and consumer preference for products that respect nature and conserve the environment. Nowadays, the fight against climate change has become an inextricable part of corporate responsibility.

The Kyoto Protocol undoubtedly has its critics, many of whom believe the obligatory emission reduction targets of the industrialized nations are woefully inadequate. Such criticism certainly has its place, and Brazil is seeking to change this situation in the negotiations that will culminate in Copenhagen in 2009. We are proposing that those countries who were primarily responsible for climate change be subjected to substantially more ambitious targets (in the 25% to 40% band) during the Protocol's second commitment period, as proposed by the IPCC. We also support the IPCC's suggestion regarding the developing countries: a substantial difference in emissions growth in relation to the business-as-usual scenario.

Time and time again, the Brazilian government has demonstrated its full engagement in the global fight against climate change and our energy matrix is exceptionally clean. But we are certainly not resting on our laurels. Proof of this came in December 2008, when President Luiz Inácio Lula da Silva announced the National Plan to Combat Climate Change, with clear and ambitious emission reduction targets. It is my firm opinion that the establishment of new and more far-reaching post-2012 targets for the industrialized nations will consolidate the CDM and pave the way for further projects, reinforcing the great agility and competitiveness of the Brazilian economy.

This Guide should therefore be regarded as part of a collective effort by Brazilian society to enhance sustainability.

Luiz Alberto Figueiredo Machado,

Director of the Department of Environment and Special Issues at the Ministry of External Relations

President of the *Ad Hoc* Working Group on Long-Term Cooperative Action under the Convention (Bali Road Map)

CONTENTS

1 CONTEXT

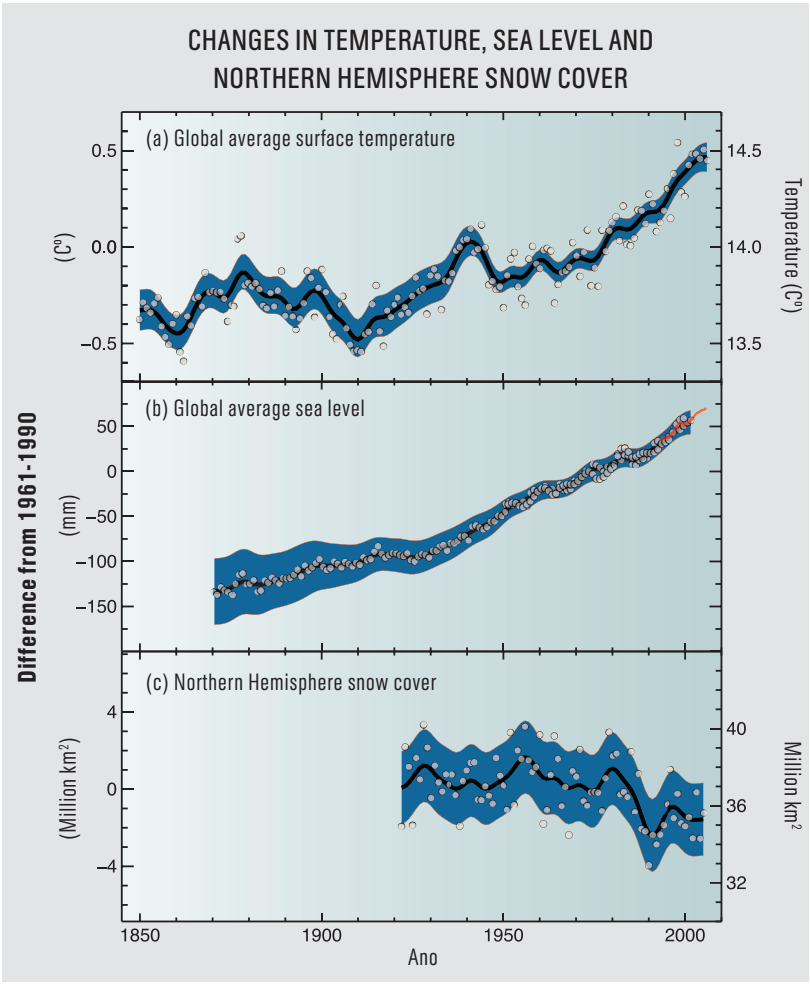
1.1 Global Climate Change

Global climate change is one of the most important challenges of the 21st century. In the last 100 years, the average surface temperature of the planet has risen by approximately 0.7º Celsius and there is overwhelming scientific evidence that this is due to the intensification of the greenhouse effect, in turn caused by the increased atmospheric concentration of certain gases, notably carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).

To illustrate this, the following charts show the impact of increased emissions* on the planet's surface temperature, on sea level and on snow cover in the Northern Hemisphere.

The intensification of the greenhouse effect, thanks to the higher concentration of the so-called greenhouse gases **(1)** in the atmosphere, caused by anthropogenic (human) activities, primarily from the burning of fossil fuels, notably coal, petroleum by-products and natural gas, which occurs on a worldwide basis due to domestic and commercial uses and in transportation, energy production, industry and agriculture. Other, non-combustion-related anthropogenic emission sources include industrial processes, agricultural activities, waste disposal and deforestation.

* Underlined words or expressions are described in the glossary.

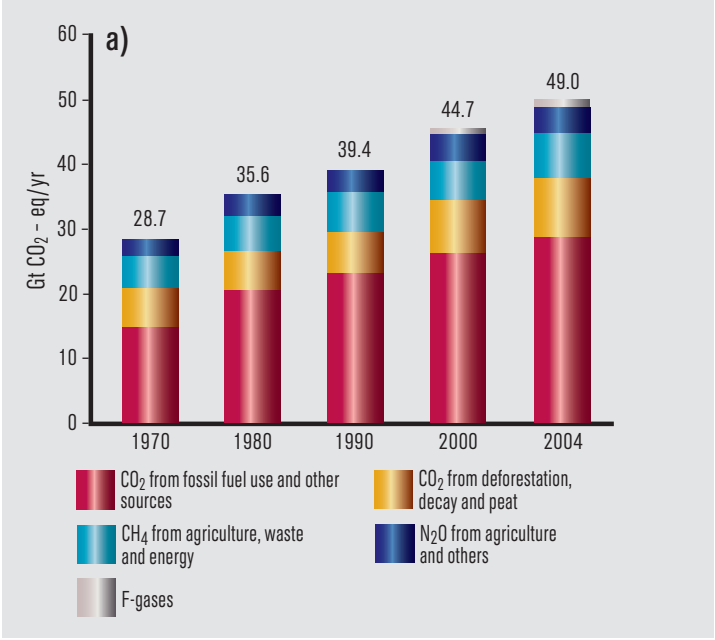


Source: IPCC Fourth Assessment Report, December 2007

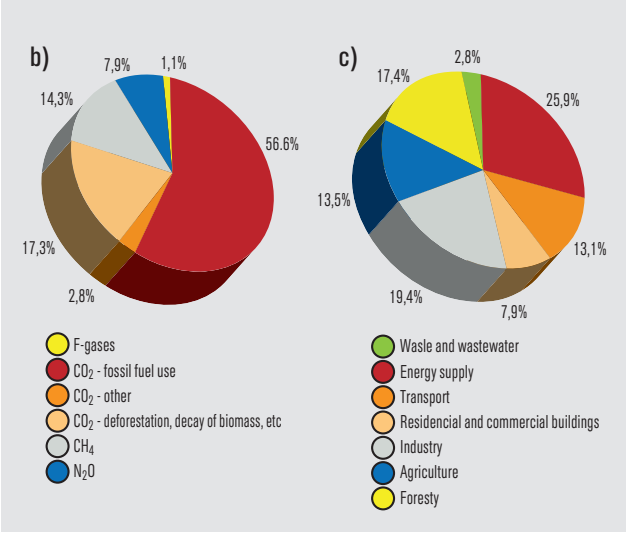
(1) For the purposes of this Guide, greenhouse gases will be designated by the acronym GHGs and will include only those listed in Annex A of the Kyoto Protocol: (i) carbon dioxide (CO_2); (ii) methane (CH_4); (iii) nitrous oxide (N_2O); (iv) sulphur hexafluoride (SF_6); (v) the hydrofluorocarbons (HFCs); and (vi) the perfluorocarbons (PFCs). Other gases not covered by the Kyoto Protocol also contribute to the greenhouse effect. These are dealt with by the Montreal Protocol and are not addressed in this Guide.

The enormity of the global climate problem is further underlined by the variation in the atmospheric concentration of these gases, measured in metric tons of CO_2 equivalent[1]. According to the IPCC Fourth Assessment Report (2007), this increased from 280 parts per million in the period before the industrial revolution to around 380 parts per million in 2005, the result of anthropogenic emissions over time as illustrated in the following chart:

GLOBAL ANTHROPOGENIC GHG EMISSIONS



[1] Measurement used to compare different greenhouse gases. The Kyoto Protocol adopted, for the first commitment period, the Global Warming Potential (GWP) from the IPCC Second Assessment Report (1995), as explained in item 2.1 (Introduction).



Source: IPCC Fourth Assessment Report, December 2007

1.2 Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC), whose activities are related to the United Nations Framework Convention on Climate Change (UNFCC – dealt with in more detail in item 1.3), is charged with assessing the scientific literature on global climate change. The IPCC is an intergovernmental body of a scientific nature, created in 1988 on the initiative of the World Meteorological Organization (WMO) and with the support of the United Nations Development Programme (UNDP).

The IPCC counts on the participation of hundreds of scientists from around the world, who contribute as authors, contributing authors and reviewers. Its reports are exemplary compilations of the current findings in the various areas of study associated with climate change and are characterized by their clear, direct, open and transparent nature. Four Assessment Reports have been published to date, covering the scientific basis of climate change, as well as its effects and such aspects as vulnerability and adaptation and mitigation options. The IPCC also publishes a series of special reports focusing on specific issues – including carbon capture and storage; emission scenarios; and land use, land use change and forestry (LULUCF) – as well as methodology reports, such as guidelines for the drawing up of GHG inventories.

One of its functions is to provide decision-makers and others interested in climate change with objective scientific information on the subject by compiling and supplying the most up-to-date and important scientific, technical and socio-economic data related to human-induced climate change and its possible impacts, as well as the adaptation and mitigation options.

Finally, it is worth noting that the IPCC does not conduct research, nor does it monitor data related to climate change or make policy recommendations. Its job is to survey the current status of the research and compile the data. For more information, see the Panel's official website: http://www.ipcc.ch. In Brazil, the Summaries for Policymakers of the latest reports can be found on the Climate Change page of the Ministry of Science and Technology (MCT) website: http:/www.mct.gov.br/clima.

1.3 United Nations Framework Convention on Climate Change (UNFCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) is an international treaty approved and opened for signature by the Parties during the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. Until now, 192 countries plus the European Union have ratified, accepted, approved or signed up to the Convention. The signatories recognized global climate change as "a common concern of mankind" and undertook to establish a global strategy "to protect the climate system for present and future generations".

On entering into force in 1994, the UNFCCC established an international legal regime whose main objective, defined in Article 2, is to stabilize GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. This would be achieved within a time frame sufficient to allow ecosystems to adapt without endangering food production and enabling economic development to proceed in a sustainable manner. In Article 4, the Convention establishes the commitments of the Parties, clearly distinguishing between the Annex I Parties **(2)** – which the instrument defines as the developed nations plus industrialized countries in transition to a market economy – from the non-Annex I Parties, defined as the developing countries.

(2) Annex I of the Convention comprises those signatories of the UNFCCC who belonged, in 1990, to the OEDC, plus the industrialized nations of the former Soviet Union and Eastern Europe.

As for mitigation, the Convention establishes that the developed country Parties shall take the initiative in combating climate change and should therefore return to their pre-1990 levels of GHG emissions by around 2000.

Article 3 of the UNFCCC establishes the principle of "common but differentiated responsibilities" – common because all countries contribute to climate change and all will suffer the consequences, and differentiated because some countries are more responsible for global warming than others due to their historic and current emission levels and are better equipped than others, both technologically and economically, to confront the problem.

Article 7 establishes that the Conference of the Parties (COP), the supreme body of the Convention (dealt with in more detail in item 1.4) shall meet once a year to discuss matters related to its effective implementation. It also establishes a permanent secretariat[2], based in Bonn; two subsidiary bodies (also dealt with in more detail below): the Subsidiary Body for Scientific and Technological Advice[3] (SBSTA) and the Subsidiary Body for Implementation[4] (SBI); and a financial mechanism[5]. The Convention also establishes procedures for the settlement of disputes, the drafting of amendments and the adoption of annexes and protocols. Although each Party has the right to one vote, all issues have been resolved by consensus, since no agreement has been reached on the voting rules.

The secretariat functions as the Convention's institutional framework, responsible for all activities related to organization, operations, coordination, support and internal and external integration, include:

- organizing and providing the necessary support services for sessions of the COP and the subsidiary bodies;
- collating, transmitting, compiling and publishing information and reports in accordance with the provisions of the Convention, particularly in regard to the developing country Parties;
- establishing administrative and contractual mechanisms, preparing activity reports and undertaking other secretariat functions, under the guidance of the COP; and
- maintaining communications with the IPCC and other international bodies, such as the Global Environment Facility (GEF), the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP), among others.

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2 Established in Article 8 of the Convention – Secretariat.

3 Established in Article 9 of the Convention – Subsidiary Body for Scientific and Technological Advice.

4 Established in Article 10 of the Convention – Subsidiary Body for Implementation.

5 Established in Articles 11 and 21 of the Convention – Financial Mechanism and Interim Arrangements, respectively.

1.4 Conference of the Parties (COP) and Subsidiary Bodies

The Conference of the Parties (COP)[6] is the Convention's supreme body, responsible for monitoring and implementing the Convention and any related legal instruments.

The first such Conference took place in Berlin in 1995 and was attended by those countries that had ratified the Convention, as well as other interested Parties. COPs are convened on an annual basis to approve a series of resolutions, subsequently published in the respective Conference report. As mentioned, decisions are taken by consensus, which can imply a lengthy negotiating process.

By the end of 2008, 14 COPs had been held (see item 1.7 - Chronology). COP 13, held in Bali, adopted the Bali Action Plan, which established two parallel processes: (i) the continuation of negotiations related to the second commitment period of the Kyoto Protocol, initiated at COP/MOP 1 in Montreal in 2005; and (ii) in accordance with the Convention's long-term objective, to initiate and maintain negotiations between those countries with no quantified commitments under the Kyoto Protocol (essentially the developing countries, including Brazil, and those Parties that have not yet ratified it, including the United States).

Decisions adopted by the COPs use the Decision x / CP.y numbering model where x is the number of the decision and y the number of the COP.

Meetings of the Convention's subsidiary bodies are held twice a year, one of which in conjunction with the COP for that year. Most of the work resulting in decisions by the COP and the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP), the supreme body of the Kyoto Protocol, is undertaken during the meetings of these subsidiary bodies.

The SBSTA was established to provide the COP with scientific and technological advice. It should not be confused with the IPCC, since it is political in nature

6 Article 7 of the Convention – Conference of the Parties.

and discussions within the SBSTA form part of the negotiating process. Its main functions are as follows:

- to assess the current status of scientific knowledge on climate change and its impacts;
- to prepare scientific assessments of the effects of the measures adopted, with a view to the implementation of the Convention; and
- to respond to scientific, technological and methodological enquiries from the COP and its subsidiary bodies.

The SBI advises the COP on all matters concerning the effective implementation of the Convention under the direct guidance of the COP. Its main functions are:

- to examine information communicated by the Parties[7] to meet the objectives of the Convention in light of the most recent scientific assessments of climate change, with a particular emphasis on national inventories of GHG emissions by sources and removals by sinks;
- to examine information communicated by the Annex I Parties[8] in order to help the COP determine the effectiveness of their national policies and the corresponding measures adopted to ensure that they meet their commitments[9], in the light of more up-to-date and accurate scientific information on and assessments of climate change and its impacts; and
- to advise the COP, whenever appropriate, on the preparation and implementation of its decisions.

In addition, Article 11 of the Convention establishes a mechanism for the provision of financial resources on a grant or concessional basis, including for the transfer of technology. Its objectives are clearly defined: to provide financial resources in such a way as to ensure that funding decisions and the funded projects to address climate change are in conformity with the policies, program priorities and eligibility criteria established by the COP.

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7 In accordance with paragraph 1 of Article 12 – Communication of Information Related to Implementation.

8 In accordance with paragraph 2 of Article 12.

9 Established by item (d) of paragraph 2 of Article 4 – Commitments.

Initially, these resources would have two sources:

- the developed country Parties, for the purpose of implementing the Convention, through bilateral, regional and other multilateral channels; and
- an entity or entities entrusted with the operation of the financial mechanism charged with providing resources on an equitable basis.

Over time, these financial mechanisms have been improved in order to ensure transparent accounting and to cover all the operating costs of the Convention, under the guidance of the COP.

1.5 Kyoto Protocol

Notwithstanding the mitigation objective envisaged in the Convention, the first COP, held in Berlin in 1995, concluded that the vast majority of the developed countries would not succeed in reducing their emissions to pre-1990 levels by around 2000, as they were committed to do under the Convention. It was therefore necessary to review these commitments and a resolution known as the Berlin Mandate was approved in order to do so.

The Berlin Mandate declared that the developed countries, based on the principle of common but differentiated responsibilities laid down by the Convention, should establish, by means of a Protocol or other legal instrument, quantitative emission reduction targets, as well as a description of the policies and measures needed to achieve these targets. The deadline was COP 3, which was to be held in 1997.

Following two years of intense negotiations, COP 3, held in Kyoto in December 1997, adopted a Protocol to the Convention, known as the Kyoto Protocol, which established quantified anthropogenic GHG emission reduction or limitation commitments for the developed countries.

It should be emphasized that these commitments depended on the political disposition of each country. At that time, there was no consensus on a criterion or criteria governing the allocation of the burden of mitigating climate change in line with the historic responsibility of each nation for the high concentration of GHGs in the atmosphere. It is also worth noting that the Protocol did not establish additional commitments for the developing countries.

The Kyoto Protocol defines legally binding emission targets for the Annex I Parties and establishes mechanisms for meeting them. However it did not enter into international force until February 16, 2005, after ratification by the Russian Federation at the end of 2004.

In accordance with Article 3.1, the Annex I Parties undertook not to exceed their assigned limits and to reduce their GHG emissions by at least 5% over their 1990 levels. These targets should be achieved between 2008 and 2012, known as the first commitment period. Thus, the phase of recognizing and accounting the reductions by the Annex I Parties began on January 1, 2008. As mentioned previously, the targets were attributed exclusively to the Annex I Parties and it will be up to them to lead the process, initiating the fight against climate change and its impacts, in accordance with the Convention and the Kyoto Protocol.

Should the Annex I Parties fail to comply with the targets established in the Protocol, they will be subject to the legally binding consequences in accordance with Article 18.

The Kyoto Protocol established three Additional Implementation Mechanisms to complement the domestic GHG reduction targets implemented by the Annex I Parties: the Clean Development Mechanism (CDM[10]), Joint Implementation (JI[11]) and Emissions Trading (ET[12]).

The CDM is the only additional implementation mechanism that permits the participation of non-Annex I Parties (so-called because they are not included in Annex I of the Convention), which do not have reduction targets and are made up of the developing nations, such as Brazil. This economic instrument aims to make it easier for the Annex I countries to meet their targets since it is frequently more cost efficient to reduce or remove GHG emissions outside their frontiers.

The basic regulations needed to implement the CDM formed part of the Marrakesh Accords, established in November 2001 during COP 7. Small-scale projects were regulated during COP 8, forestry projects during COP 9 and small-scale forestry during COP 10. Since the Kyoto Protocol entered into force, further additions to and detailing of CDM-related issues have taken place within the scope of the COP/MOPs.

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10 Article 12 of the Kyoto Protocol.

11 Article 6 of the Kyoto Protocol.

12 Article 17 of the Kyoto Protocol.

1.6 Conference of the Parties Serving as the Meeting of the Parties to the Kyoto Protocol (COP/MOP)

The COP/MOP is the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol. Like the COP in regard to the Convention, the COP/MOP is the supreme body of the Kyoto Protocol, responsible for monitoring its implementation through periodic reviews and taking the necessary decisions to ensure effective implementation[13].

The COP/MOP is also responsible for assessing the Parties' progress towards meeting their targets by publishing periodic reports containing information related to the process; promoting the development and improvement of implementation methodologies; and establishing whatever subsidiary bodies it considers necessary.

The Kyoto Protocol entered into force on February 16, 2005, and the first COP/MOP was held in conjunction with COP 11 in Montreal in December of the same year. Prior to its becoming effective, decisions regarding the Protocol dealt with during the COPs and provisionally approved were known as draft decisions. All of these decisions were officially approved at COP/MOP 1 and its respective annexes were approved jointly as decisions of the Kyoto Protocol and duly numbered. The COP/MOPs are held in conjunction with the COPs.

Decisions adopted by the COP/MOPs use the Decision x / CMP. y numbering model where x is the number of the decision and y the number of the COP/MOP.

Only Kyoto Protocol signatories can participate in the decision-taking process at these meetings. Parties to the Convention who have not ratified the Protocol may only take part in the COP/MOPs as observers.

It is also worth noting that the Subsidiary Body for Scientific and Technological Advice and the Subsidiary Body for Implementation established within the Convention also operate as the Kyoto Protocol's Subsidiary Body for Scientific and

[13] Article 13, paragraph 4 of the Kyoto Protocol.

Technological Advice and Subsidiary Body for Implementation. Meetings of the Protocol's subsidiary bodies are held in conjunction with those of the Convention's subsidiary bodies, although their agendas are different.

1.7 Chronology

There follows a brief chronology of the main events related to the Clean Development Mechanism, from the First World Climate Conference, in 1979, to the last COP and COP/MOP, in December 2008.

1979	. First World Climate Conference
1988	. Establishment of the IPCC
1990	. IPCC First Assessment Report . Second World Climate Conference . UN General Assembly announces negotiations for an international convention on climate change
1992	. The Intergovernmental Negotiating Committee (INC) adopts the UNFCCC . United Nations Conference on Environment and Development (Rio 92) . UNFCCC is opened for signatures
1994	. UNFCCC enters into force
1995	. COP 1 – Berlin Adoption of the Berlin Mandate (Decision 1/CP.1), permitting the stipulation of GHG emission limits . IPCC Second Assessment Report
1996	. COP 2 – Geneva
1997	. COP 3 – Kyoto Adoption of the Kyoto Protocol (Decision 1/CP.3)
1998	. COP 4 – Buenos Aires Creation of the Buenos Aires Plan of Action (decisions 1 to 8/CP.4)
1999	. COP 5 – Bonn
2000	. COP 6 – The Hague

2001	. COP 6 reconvened – Bonn – agreement on the modalities of the Kyoto Protocol . COP 7 – Marrakesh – finalization of the Kyoto Protocol (Marrakesh Accords) . IPCC Third Assessment Report
2002	. World Summit on Sustainable Development . COP 8 – New Delhi – New Delhi Declaration – Regulation of Small-Scale CDM Projects
2003	. World Climate Conference – Moscow . COP 9 – Milan – Regulation of Afforestation and Reforestation CDM Projects
2004	. COP 10 – Buenos Aires – Regulation of Small-Scale Afforestation and Reforestation CDM Projects
2005	. COP 11 and COP/MOP 1 – Montreal First COP with the Kyoto Protocol in force First COP/MOP, establishment of an *ad-hoc* group to negotiate targets for the second commitment period (Article 3.9 of the Protocol)
2006	. COP 12 and COP/MOP 2 – Nairobi
2007	. COP 13 and COP/MOP 3 – Bali . IPCC Fourth Assessment Report
2008	. COP 14 and COP/MOP 4 – Poznan

2 THE CLEAN DEVELOPMENT MECHANISM (CDM)

2.1 Introduction

The Clean Development Mechanism (CDM) arose from the Brazilian proposal to create a Clean Development Fund, funded by those developed countries that had not complied with their quantified GHG emission reduction or limitation targets, which would be used to promote projects in developing countries. However, certain developed nations refused to accept the concept of penalization and the initial idea was transformed into the Clean Development Mechanism, through which those countries with emission reduction commitments (i.e. the Annex I countries) could acquire Certified Emission Reductions (CERs) **(3)** generated by projects in the non-Annex I (developing) countries as a means of complying with part of their emission reduction targets under the Protocol. The idea is that the implemented project will generate environmental benefits (reduction of GHG emissions and/or net removal of CO_2) in the form of transferrable financial assets (CERs), which will be dealt with in more detail. Such projects should result in greater emission reductions than would have occurred in their absence, ensuring real, measurable and long term benefits for the mitigation of climate change, pursuant to Article 12 of the Protocol.

(3) One CER is equivalent to one tonne of carbon dioxide equivalent, calculated in accordance with the Global Warming Potential, which is a means of comparing and quantifying the various GHGs in terms of their carbon dioxide equivalent. A GWP for 100 years was adopted for the first commitment period (2008-2012), published in the IPCC Second Assessment Report (1995) and presented in Appendix III (page 100).

The purpose of the CDM, as defined in the Article 12 of the Protocol, is to: (i) help the non-Annex I Parties contribute to the ultimate objective of the Convention – i.e. achieving and sustaining levels of atmospheric GHG concentrations that do not imply dangerous anthropogenic interference in the climate system – and achieve sustainable development through the implementation of project activities; and (ii) help the Annex I Parties comply with their quantified emission limitation and reduction commitments.

The CDM therefore represents a substantial voluntary contribution on the part of the Annex I countries towards effectively changing the global warming tendency in accordance with the Convention, the Kyoto Protocol and the principle of common but differentiated responsibilities. By means of the CDM, the developing countries will continue to develop in a sustainable manner, combating poverty and, at the same time, contributing to the global effort to mitigate the greenhouse effect.

The CDM is based on the development of projects and part of its success is due to the enterprising nature of the business community. CDM project activities in the developing countries must be directly related to GHGs and produce real, measurable and long-term benefits. Such projects must therefore result in a reduction in GHG emissions or an increase in the net removal of CO_2 and can involve the replacement of fossil fuels by renewable ones, the rationalization of energy use, afforestation and reforestation activities and more efficient urban services, among others (see Appendix IV). Projects must involve one or more of the gases listed in Annex A of the Protocol related to various sectors/sources of activities, as shown in the following table:

MAIN SECTORS RESPONSIBLE FOR AND SOURCES OF GHG EMISSIONS

Sector/Activity	Sources	Gases
Energy	Fuel combustion Energy industries Manufacturing industries and construction Transport Other sectors Fugitive emissions from fuels Solid fuels Oil and natural gas Other	Carbon dioxide (CO_2) Nitrous oxide (N_2O) Methane (CH_4) Sulphur hexafluoride (SF_6)
Industrial Processes	Mineral products Chemical industry Metal production Other production Production of halocarbons and sulphur hexafluoride Consumption of halocarbons and sulphur hexafluoride Other	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O) Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs) Sulphur hexafluoride (SF_6)
Solvents and Other Product Use	-	Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs) Sulphur hexafluoride (SF_6) Carbon dioxide (CO_2) Nitrous oxide (N_2O)

Sector/Activity	Sources	Gases
Agriculture	Enteric fermentation Manure management Rice cultivation Agricultural soils Prescribed burning of savannas Field burning of agricultural residues Other	Carbon dioxide (CO_2) Methane (CH_4) Nitrous oxide (N_2O)
Waste	Solid waste disposal on land Wastewater handling Waste incineration Other	Methane (CH_4) Carbon dioxide (CO_2) Nitrous oxide (N_2O)

Annex I and non-Annex I Party public entities, private entities and public-private partnerships may participate in CDM projects provided they are duly authorized by the respective countries. The CDM is a market mechanism which encourages the active involvement of the private sector, with its recognized speed, flexibility and capacity to respond. In addition, the engagement of this sector is crucial for ensuring the effectiveness of the mitigation activities.

The reduction of GHG emissions and/or increase in the net removal of CO_2 is measured in metric tons of carbon dioxide equivalent – tCO_2e. Each tCO_2e reduced or removed from the atmosphere, duly verified according to a process that will be specified subsequently, corresponds to one Certified Emission Reduction unit (CER) issued by the CDM Executive Board.

CERs can be used by the Annex I Parties that have ratified the Kyoto Protocol to meet part of their quantified GHG emission limitation or reduction targets. It also allows them to do so at a lower cost and, at the same time, invest in the developing countries, thereby contributing to the latter's sustainable development.

It was hoped that each CDM project would count on the involvement of an Annex I and non-Annex I Party from the beginning. In practice, however, this has not always been the case. For example, most of the Brazilian projects registered by the CDM Executive Board have been developed by national players only, without the direct involvement of any Annex I Party. These are known as "unilateral projects". Nevertheless, the final purpose of any CDM project activity is the use of the resulting CERs by the Annex I Parties to meet part of their targets and the internalization of this external benefit in the form of resources envisaged since the conception of the project. The project proponent will receive the entire benefits accruing from the sale of the CERs, popularly known as carbon credits (although this is a more generic term, since it includes other reduction units from other mechanisms) at the market price, as has already occurred through private negotiations or through the São Paulo Commodities and Futures Exchange (BM&F Bovespa S.A.).

Annex I Party compliance or non-compliance with their targets will be verified after the end of the first commitment period, when they must show that their emissions between 2008 and 2012 are equal to or less than a pre-determined limit. The calculation of this limit involves various specific factors whose explanation goes beyond the scope of this Guide. In general, however, the calculation is based on the country's 1990 emissions multiplied by 5 with the application of a percentage established in Annex B of the Protocol. For example, a country that emitted 100 $GtCO_2e$ in 1990 and has a reduction commitment of 92% in Annex B would have a limit of (100 x 5 x 0.92), or 460 $GtCO_2e$. If the country emits more than this between 2008 and 2012, it will have to make up the difference with carbon credits generated by the three mechanisms specified in the Protocol, including the CDM.

A total of 4,352 CDM project activities were wholly or partially in place through February 06, 2009, and Brazil was responsible for 346, or approximately 8%. Of this total, 1,120 are already registered and the other 3,232 are in another phase of the project cycle.

2.2 Institutional Framework

The institutions related to the CDM are listed below.

COP/MOP – Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol

Complementing Chapter 1, the purpose of the COP/MOP is to regulate and monitor the implementation of the Protocol. In terms of the CDM, the COP/MOP:

- has authority over the CDM and its guidelines;
- decides on recommendations concerning the CDM rules determined by the Executive Board in accordance with Decision 17/CP.7;
- decides on the designation of the Designated Operational Entities (DOEs), provisionally certified by the Executive Board;
- reviews the annual reports of the Executive Board;
- reviews the regional and sub-regional distribution of the DOEs and the project activities; and
- assists in obtaining funding for CDM project activities.

CDM Executive Board

The CDM Executive Board had met 46 times through March 2009. It comprises representatives of the Parties, in the proportion defined by the Convention, with the necessary technical capacity to analyze the projects. It acts under the authority and guidance of the COP/MOP and is responsible for supervising the functioning of the CDM. Among other attributes, it:

- makes recommendations to the COP/MOP regarding CDM modalities and procedures and/or any amendment or addition to the Executive Board's rules of procedure;
- approves new methodologies related to baselines, monitoring plans and project boundaries;
- reviews provisions with regard to the simplified modalities, procedures and definitions of small-scale project activities (CDM-SSC) and, if necessary, makes recommendations to the COP/MOP;
- is responsible for the accreditation of the DOEs and recommending their designation to the COP/MOP;
- publishes technical reports, giving the public at least eight weeks to comment on the methodologies and directives therein;
- develops and maintains the CDM Registry;

- formally accepts a project validated as a CDM project activity (registration); and
- instructs the administrator of the CDM Registry to issue CERs resulting from a project activity.

The Executive Board can also establish committees, panels or working groups to assist it in performing its functions. Currently, these are as follows:

1 Methodologies Panel

The Methodologies Panel develops recommendations to the Executive Board on guidelines for existing baseline and monitoring methodologies and makes recommendations on proposals for new baseline and monitoring methodologies.

2 Accreditation Panel / Accreditation Assessment Team

The Accreditation Panel provides input for Executive Board decisions in accordance with the procedure for accrediting operational entities. In order to do so, it appoints an Accreditation Assessment Team, which makes a previous assessment of the DOEs.

3 Afforestation and Reforestation Working Group

The complexity of the forestry and land-use issue led to the creation of a specific group – the Afforestation and Reforestation Working Group – to prepare recommendations on proposals for new baseline and monitoring methodologies for afforestation and reforestation (A/R) project activities.

4 Small-scale Working Group

The Small-scale Working Group prepares recommendations on proposals for new baseline and monitoring methodologies for small-scale project activities.

5 Registration and Issuance Team (RIT)

The RIT is a group of specialists appointed by the Executive Board to assist it by appraising requests for the registration of project activities and the issuance of CERs.

Designated National Authorities (DNAs)

The Parties involved in a CDM project activity must designate a Designated National Authority (DNA) with the UNFCCC. The DNAs must attest to the voluntary nature of the involvement of the project participants and, in the case of the host Party, attest that the project activities contribute to that country's sustainable development. Approval of CDM project activities is granted through a Letter of Approval (LoA) issued by the DNAs.

The specifications of Brazil's DNA (the Interministerial Commission on Global Climate Change) and its procedures for issuing a Letter of Approval are dealt with in Chapter 3.

Designated Operational Entities (DOEs)

A Designated Operational Entity (DOE) is a certification entity accredited by the CDM Executive Board and designated by the COP/MOP, which ensures that project activities are correctly applying the rules and procedures established by the Kyoto Protocol and the Executive Board. In Brazil, it is a basic criterion that the DOE must be legally established in the country.

The DOE has two basic functions within the CDM project cycle, which will be dealt with in more detail subsequently:

- validation – phase in which the DOE analyzes the Project Design Document (PDD) – where the main information concerning the project is given –, visits the undertaking, checks the documentation and requests changes and additions, among other measures, in order to ensure that the project activity complies with CDM regulations before requesting its registration by the Executive Board; and

- verification/certification – phase in which the DOE confirms that the monitoring procedures have been correctly applied and that their data accurately reflect an effective reduction in GHG emissions (or net CO_2 removals), resulting in a Certification Report which is sent to the Executive Board for the issuance of the corresponding CERs.

In the case of large-scale project activities (see item 2.4, Project Cycle), each of these steps will be undertaken by a different DOE. In the case of small-scale project activities (item 2.5), the same DOE can handle both steps.

In addition, DOEs should: maintain a public list of CDM project activities, send an annual report to the Executive Board and ensure that information on the project activities not considered confidential by the participants is available to the public.

2.3 Basic Concepts

It is important to note that the CDM arose from the negotiating table and therefore represents the resulting consensus. Consequently, as a political instrument, it must have sufficient scope to accommodate the interests of all the Parties involved, in turn reflected in the complexity of its language and procedures. The Executive Board, with the support of all the institutions involved with the CDM, has been attempting to streamline and simplify the mechanism without jeopardizing its underlying fundamentals and environmental integrity. It is undeniable that the CDM, in addition to allowing the Annex I countries to reduce their emissions at the lowest possible cost, also promotes the flow of capital resources and the transfer of technologies from the industrialized to the developing countries, without jeopardizing the latter's legitimate opportunities for economic growth and social well-being.

The CDM is therefore a resourceful solution to a complex issue addressed by the Conference of the Parties which:

- understood that the cost of reducing GHGs was much greater in the Annex I Parties than in the non-Annex I Parties;
- determined that the industrialized countries would take the initiative in reducing their GHG emissions, given their historical responsibility since the industrial revolution;
- sought to ensure the effectiveness of the GHG reductions and/or removals, instituting sophisticated and rigorous monitoring and validation mechanisms with the Executive Board and other political, technical and scientific bodies;
- incorporated the need for contributing to the sustainable development and social well-being of the project activity host countries into the eligibility criteria;
- mobilized financial institutions, especially those dealing with the capital market, and created an appropriate environment for the economic agents to adopt the cleanest and most efficient processes and technologies; and

- instilled a sense of urgency and an awareness of the threat to the global environment, including through the IPCC Assessment Reports, whose scientific probity is unquestionable, and, consequently, ensuring that the issue of climate change became not only part of the political agenda but also a major concern of the business community.

There follows a description of the two main concepts needed to understand the CDM: Baseline and Additionality.

2.3.1 Baseline

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"[14]. It should cover emissions from all gases, sectors and source categories within the project boundary and should be established:

- by the project participants in accordance with provisions for the use of approved and new methodologies (which will be explained subsequently);
- in a transparent and conservative manner regarding the choice of approaches, assumptions, methodologies, parameters, data sources, key factors and additionality, always taking uncertainty into account;
- on a project-specific basis; and
- taking into account the relevant national and/or sectoral policies, as well as the particular circumstances and characteristics of the place where the activity is being proposed.

The determination of a baseline for a project activity is one of the crucial phases in the project's development. It needs to have credibility and must be defined in an entirely unambiguous manner, given that it constitutes the base for calculating the project's reduction or removal of GHG emissions. There are certain standard procedures for establishing the baseline, which are detailed in the "Tool for the demonstration and assessment of additionality"[15] and the "Combined tool to

[14] Paragraph 44 of the Annex to Decision 3/CMP.1

[15] See http://cdm.unfccc.int/Reference/tools/ls/meth_tool01_v05_1.pdf

identify the baseline scenario and demonstrate additionality"[16]. There are simplified procedures for small-scale projects (see item 2.5). All such procedures include identifying the hypothetical scenarios in the absence of the project activity and assessing if the project would be developed anyway without the CDM. The selected hypothetical scenario serves as the comparative base for the CDM project for the purpose of assessing the reduction or removal of GHG emissions and the future issuance of CERs.

2.3.2 Additionality

The concept of additionality is absolutely crucial to the understanding of what a CDM project should be. Considerable attention should be given to this issue, given that the lack of additionality is one of the main reasons why projects are rejected in the registration phase.

According to paragraph 5 of Article 12 of the Kyoto Protocol, "Emission reductions resulting from each project activity shall be (...) additional to any that would occur in the absence of the certified project activity."

In paragraph 43 of the Annex to Decision 3/CMP.1, the concept is defined as follows: "A CDM project activity is additional if anthropogenic emissions of greenhouse gases by sources are reduced below those that would have occurred in the absence of the registered CDM project activity."

In short, this means that a proposed project is only considered additional if its implementation is linked to the registration of a CDM activity, or rather that the project would not be executed without the expectation that it would generate CERs (extra financial resources).

Additionality is relatively easy to prove in projects that do not generate economic benefits beyond the sale of the resulting CERs – this is the case, for example, with the simple combustion of biogas or the destruction of N_2O when there is no legal obligation to do so.

When other financial benefits exist, such as a hydroelectric power plant, which can sell the electricity it produces, it must be proved that this plant would not have been

16 See http://cdm.unfccc.int/Reference/tools/ls/meth_tool02_v02_1.pdf

built without CDM funding. Also, if a thermal power plant were more feasible from an economic and financial point of view, but the contractor still opted for a hydro plant for CDM reasons, such a project can be considered as additional.

Frequently, however, a project can be economically justified but faces obstacles of another nature. In such cases where proof is not simple and which involve certain subjective issues, additionality tools were created to help in this task, namely the "Tool for the demonstration and assessment of additionality" and the "Combined tool to identify the baseline scenario and demonstrate additionality" cited in the previous item.

All this concern with demonstrating additionality is due to the project's nature as an off-set mechanism – the resulting CERs will be used by the Annex I countries to offset unfulfilled domestic emission reductions, which is why everything possible must be done to ensure the environmental integrity of the Kyoto Protocol and the CDM.

If the CDM project did not exist, the Annex I country would have to effect the same reductions internally. Thus, for global purposes, it is not important where the reduction occurs, but that it does occur.

From this stems an important fact: if a CDM project activity is effected without additionality, permission for the Annex I country to emit GHGs from undue carbon credits would be prejudicial to the climate, contradicting the very purpose of the UNFCCC.

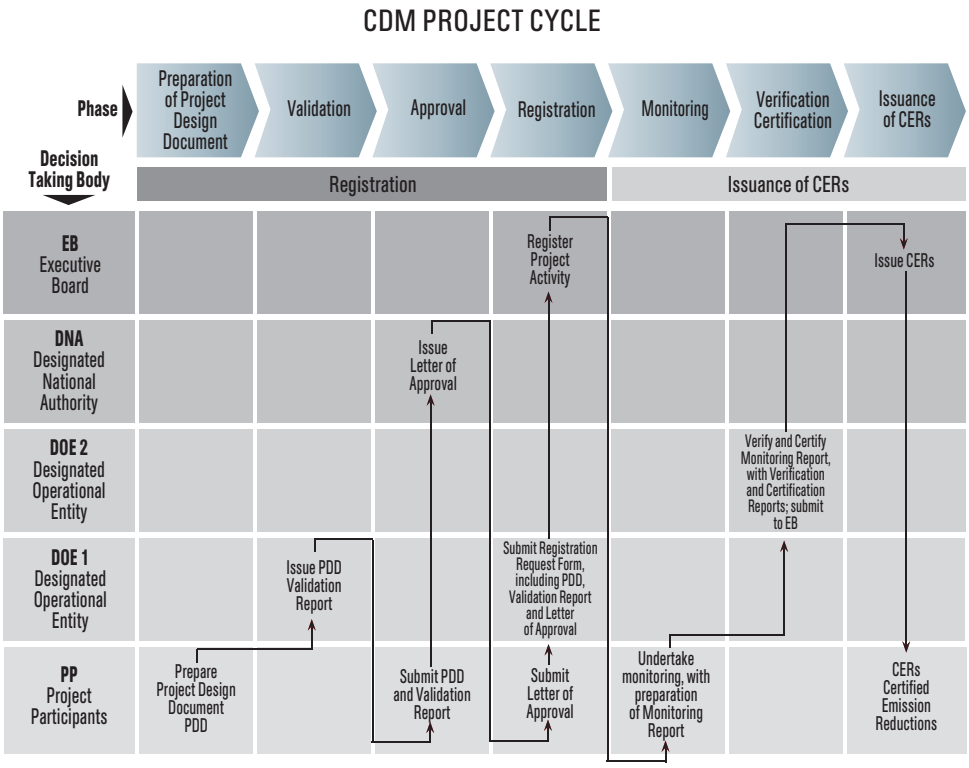
There are various precautionary measures within the Kyoto Protocol to ensure that the reduction in GHG emissions or increased removal of CO_2 are, in fact, additional. For example, as mentioned previously, if a given activity that reduces GHG emissions is obligatory in the country, it cannot be registered as a CDM project activity unless there has been general non-compliance with this obligation or, in the case of the Programme of Activities, if the project increases the degree of this compliance. However, if the activity in question is encouraged, but not mandatory, it may be considered additional[17].

[17] See EB16 – Annex 3 – "Type E": Policies or legislation which give comparative advantages to less emissions-intensive technologies over more emissions-intensive technologies (e.g. public subsidies to promote the diffusion of renewable energy or to finance energy efficiency programs) and which have been implemented since November 11, 2001 (adoption of Decision 17/CP.7) may not be taken into account in developing a baseline scenario (i.e. the baseline scenario should refer to a hypothetical situation without considering these policies or legislation).

As a result, for every project activity, this point should be clearly explained in the Project Design Document (PDD), which contains all the important information, and duly validated by the DOE (see item 2.4.1, Preparation of the PDD, for more details).

2.4 Project Cycle

The chart below illustrates, in schematic form, the entire CDM project cycle.



Using this representation as a model, there follows a detailed description of each stage of the project cycle in order to clarify the overall process of project activities under the CDM. These are divided into two main types: (i) activities to reduce GHG emissions; and (ii) activities to remove CO_2.

In the case of projects designed to reduce GHG emissions, the Marrakesh Accords (Decision 11/CP.7) determined that, during the first commitment period, in the case of land use, land use change and forestry (sinks), activities would be restricted to afforestation and reforestation, which will be addressed in item 2.5 of this Guide. Item 2.4 deals with the general requirements for all CDM projects. The specific requirements for forestry projects, small-scale projects and programmatic projects will be detailed in subsequent sub-items.

In order to be eligible, any project activity will have to meet the following criteria:

- result in additional reductions in GHG emissions, or net removals of CO_2, to those that would have occurred in its absence;
- contribute to the sustainable development objectives defined by the host country;
- voluntary participation in the CDM;
- discount any increase in GHG emissions occurring outside the boundaries of the project activities which are measurable and can be attributed to these activities – leakage (addressed in more detail under "Preparation of the Project Design Document");
- take into consideration the opinions of all the stakeholders in the project activity, who should be consulted for this purpose;
- document the assessment of the environmental impacts and, if these exist, undertake an environmental impact study in accordance with the procedures of the host country;
- result in real, measurable and long-term benefits in terms of mitigating the negative effects of climate change;
- be related to those gases and sectors listed in Annex A of the Kyoto Protocol or to afforestation or reforestation project activities; and
- obtain Letters of Approval (LoA) from each country participating in the project activity.

The basic stages of the project cycle are as follows:

- Preparation of the Project Design Document (PDD);
- Validation and Approval;

- Registration;
- Monitoring;
- Verification and Certification; and
- Issuance of CERs.

2.4.1 Preparation of the Project Design Document

All stages of a project cycle are essential, the starting point being the preparation of the Project Design Document.

Its format has been standardized by international rules and it is accompanied by specific instructions[18] designed to guide the project participants through the process of preparing and presenting the required information and documentation.

The PDD is the document that details a project activity in line with the procedures established by the CDM, covering its technical and organizational aspects, justifying the choice of baseline and monitoring methodology and demonstrating its additionality.

The PDD should follow the current model established by the Executive Board available on the website http://unfccc.int/cdm, which also contains instructions on how it should be filled in[19]. We will now show the mandatory stages constituting the PDD.

A. Overall description of the project activity

The first step in preparing the PDD is to provide a general description of the project activity. This description must contain:

- the title of the project activity, including the version number and date of the document;
- description of the project activity, containing:

18 See http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid04_v06_2.pdf

19 See http://cdm.unfccc.int/Reference/Guidclarif/pdd/index.html

- the purpose of the project activity;

- details of the technology being employed and other measures that explain how the project activity will reduce GHG emissions;

- the view of the project participants on the project activity's contribution to sustainable development;

- a list of the Parties and participants involved in the project, including contact information to be included in Annex I of the PDD;

- a technical description of the project activity:

  - location of the project activity;

  - category of the project activity, in accordance with the list available on the website of the Convention[20];

  - the technology to be employed by the project activity, including a description of how the necessary expertise and clean technologies will be transferred to the host country(ies);

  - the estimated amount of emission reductions over the chosen crediting period, including annual estimates; and

  - public funding of the project activity by Annex I Parties **(4)** – details should be provided in Annex 2 of the PDD.

(4) The aim of this item is to show that these sources are additional and not part of Official Development Assistance (ODA), through which least-developed, developing or emerging countries sign co-operation agreements with developed countries and international bodies resulting in the transfer of non-reimbursable funds for development programs and programs to improve the quality of life. One Brazilian example in the environment area, negotiated during Rio-92, is the Pilot Program to Conserve the Brazilian Rain Forest

20 "Guidelines For Completing The Project Design Document (CDM-PDD), And The Proposed New Baseline And Monitoring Methodologies (CDM-NM)", version 06.2, available at http://cdm.unfccc.int/Reference/Documents/Guidel_Pdd_most_recent/English/Guidelines_CDMPDD_NM.pdf

(PPG-7), through which the then G7 countries agreed to contribute to socio-environmental projects, particularly in the Amazon region.

B. Application of a baseline and monitoring methodology

A clear understanding of the project's baseline, boundaries and leakage is essential for this stage of the PDD and, consequently, for calculating the net GHG emission reductions promoted by a CDM project activity.

Baseline

The baseline of a CDM project activity refers to the most likely future scenario for anthropogenic GHG emissions that would occur in the absence of the proposed project activity, including emissions of all the gases listed in Annex A of the Kyoto Protocol within the project boundaries. It serves as the basis for verifying additionality (see item 2.3.2) and quantifying the CERs resulting from the project activity. The baseline is qualified and quantified based on the business-as-usual scenario.

There are three possible approaches to constructing the baseline scenario. The most appropriate for the project activity in question should be indicated and justified.

- *Status quo* emissions: current or historic emissions, whichever is the case.
- Market conditions: emissions from a recognized and economically attractive technology, taking investment obstacles into consideration.
- Best available technology: the average volume of emissions from similar project activity emissions in the five years prior to the drafting of the PDD under similar social, economic, environmental and technological circumstances, and whose performance is among the top 20% in its category.

Additionality

Project participants must describe the project activity's additionality in a transparent and conservative manner, allowing interested Parties to rationally reproduce the project[21] in accordance with the scope and details presented in the PDD.

21 See footnote 20

There are various means and instruments for demonstrating additionality, the most used being the "Tool for the demonstration and assessment of additionality"[22], developed by the Executive Board. There is also the "Combined tool to identify the baseline scenario and demonstrate additionality"[23]. Other baseline and monitoring methodologies contain a means of demonstrating additionality for the specific cases in question. However, project participants may decide not to use a tool and simply present their arguments demonstrating the additionality of their project (except in cases where a specific tool is cited as part of the adopted methodology[24]).

One key factor in demonstrating additionality is the project's starting date. Evidence that the incentive from the CDM was seriously considered in the decision to implement the project activity is also vital.

In accordance with Annex 46 of the 41st meeting of the CDM Executive Board, project activities with a starting date on or after August 2, 2008, must comply with the following criteria.

- The project participant must inform a host Party DNA and/or the UNFCCC secretariat in writing of the initiation of the project activity and of its intention to seek CDM status. This notification must be made within six months of the project activity starting date and must contain the precise geographical location and a brief description of the proposed project activity. This notification is not necessary under two circumstances: the PDD was already published for global stakeholder consultation; or a new methodology was already proposed to the Executive Board before the project activity starting date.

- When validating a project activity with a starting date on or after August 2, 2008, DOEs shall ensure by means of confirmation from the DNA or UNFCCC secretariat that such a notification has been provided. If such a notification has not been provided, the DOE shall determine that the CDM was not seriously considered in the decision to implement the project activity.

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22 "Tool for the demonstration and assessment of additionality", version 05, available at: http://cdm.unfccc.int/methodologies/PAmethodologies/AdditionalityTools/Additionality_tool.pdf

23 "Combined tool to identify the baseline scenario and demonstrate additionality", version 02, available at: http://cdm.unfccc.int/Reference/Guidclarif/EB28_repan14_Combined_tool_ver02.pdf

24 See Decision 7/CMP.2, paragraph 28, available at: http://unfccc.int/resource/docs/2005/cmp1/eng/08a01.pdf#page=93

- Additionally, for project activities for which a PDD has not been published for global stakeholder consultation or a new methodology has been proposed or a request for revision of an approved methodology has been filed, the project participants should inform the DNA and/or the UNFCCC secretariat of the progress of the project activity every subsequent two years after the initial notification.

Also in accordance with Annex 46, proposed project activities with a starting date before August 2, 2008, whose starting date is also prior to the date of publication of the PDD for global stakeholder consultation, are required to demonstrate that the CDM was seriously considered in the decision to implement the project activity. This is a precaution designed to prevent ongoing projects from making undue use of the CDM's benefits. Such project activities can only begin their CER crediting period after their registration with the Executive Board. In short, this demonstration requires compliance with the following elements:

- the project participant must produce documentary evidence from a higher level[25] – minutes and/or notes of Executive Board meetings, for example – demonstrating awareness of the CDM prior to the project activity starting date, and that the benefits of the CDM were a decisive factor in the decision to proceed with the project; and

- the project participant must indicate, by means of reliable evidence, that continuing and real actions were taken to secure CDM status for the project in parallel with its implementation. Such evidence should consist of contracts with consultants for PDD/methodology services, Emission Reduction Purchase Agreements or similar potential CER sale agreements, contracts or agreements with DOEs, submission of a new methodology to the Executive Board, publication in a newspaper, interviews with the DNA, or earlier correspondence on the project with the DNA or the UNFCCC secretariat.

If evidence to support the serious prior consideration of the CDM as indicated above is not available, the DOE shall determine that the CDM was not considered in the decision to implement the project activity.

Tool for the demonstration and assessment of additionality

This is a step-by-step approach to demonstrating and assessing additionality. These steps include:

25 See footnote 20

- identification of alternatives to the project activity;
- investment analysis to determine that the proposed project activity is either not the most economically or financially attractive, or is simply not economically or financially feasible;
- barrier analysis; and
- common practice analysis.

This tool will be presented here in a summarized form. To view the document in its entirety, see footnote no. 22.

Identification of alternatives to the project activity

The alternatives to the project activity available to the project participants or similar project developers must be consistent with the applicable legislation and provide the same products and services with comparable quality, properties and fields of application.

The project proponents can opt for investment analysis and subsequently complete this with barrier analysis or opt for barrier analysis only. In either case, the analysis should show that the proposed activity would not be undertaken without the benefits of the CDM.

Investment Analysis

Investment analysis can be conducted in three ways. If the project does not generate any economic or financial benefits beyond the CDM carbon credits, option I may be applied; if it does generate such additional benefits, then option II or III is applicable.

Option I: Simple cost analysis, whenever a project activity generates no returns beyond the carbon credits themselves (e.g. a project to burn biogas in a sanitary landfill with no associated electricity generation).

Option II: Investment comparison analysis, whenever a project activity generates returns beyond the carbon credits (e.g. the sale of electricity). In this case, it is necessary to compare the proposed project with the baseline of the alternative project using such indicators as the internal rate of return (IRR), which represents the profitability generated by a given investment, or net present value (NPV), which represents the

difference between the investment undertaken (current cash expenditure) and the present value of future cash flows (future returns). In the specific case of the energy sector, the cost/benefit ratio (e.g. levelized $/kWh) should be taken into consideration. In any event, the choice of indicator(s) should be the most appropriate for the project type and decision context.

Option III: Benchmark analysis, whenever the most suitable financial indicator for the project type and decision context, such as the IRR in the previous option, is identified.

The parameters adopted in options II and III should be standard ones largely used by the market, considering the specific characteristics of the projects, but not linked to the subjective profitability expectations or risk profile of a particular project developer. However, if a project activity can only be implemented by the project participant, the specific financial/economic situation of the company undertaking the project activity can be considered. This would be the case of a project activity which improves an existing process or which uses an undervalued resource, such as waste, available at the project location but not sold.

Discount rates and benchmarks may be derived from the following items.

- Government bond rates, which may be increased by a suitable risk premium to reflect private investment and/or the project type, substantiated by an independent financial expert.

- Estimates of the cost of financing and required return on capital, based on bankers' views and private equity investors/funds' required return on comparable projects.

- An internal company benchmark (weighted average cost of the company's capital), only if there is a potential project developer, as explained above. The project participants must demonstrate that this benchmark has been consistently used in the past, i.e. that project activities developed by the same company under similar conditions used the same benchmark.

- An official or government-approved benchmark which is used for investment decisions.

- Any other indicators, if it can be shown that the above options are not applicable.

The investment analysis must be presented in a transparent manner as an annex to or within the PDD, so that readers can reproduce the assessment and obtain the same results. The comparison with the alternatives should show that the proposed

CDM project is not the most attractive without the carbon credits or, simply, that it is not more economically or financially attractive than the alternative baseline. If Options II or III are adopted, a sensitivity analysis of the indicators involved should be undertaken to ensure that the financial analysis remains valid.

As part of the efforts to improve and standardize procedures, the 41st meeting of the Executive Board established certain complementary procedures to be adopted when preparing, presenting and validating the investment analyses, namely the "Guidance on the Assessment of Investment Analysis (Version 02)"[26], which incorporated the "Tool for the demonstration and assessment of additionality" as an annex.

Investment analysis is a recurring target of requests for revisions and clarifications by the CDM Executive Board in the process of demonstrating and assessing the additionality of the project activities.

The new guidelines detail the analytical and decision-taking process and contain the following topics:

- general issues in calculation and presentation;
- specific guidance on the calculation of project IRR and equity IRR;
- selection and validation of appropriate benchmarks;
- investment comparison analysis and benchmark analysis; and
- sensitivity analysis.

For illustrative and guidance purposes, and without reproducing the tool in full, it is worth drawing attention to the following numbered aspects:

1 When determining if a project activity is financially viable (or not) without the incentive of the CDM, the period to be considered when calculating the project IRR and equity IRR should be greater than the crediting period and should reflect the technical lifetime of the project within a minimum of 10 years and a maximum of 20 years.

26 See http://cdm.unfccc.int/EB/041/eb41_repan45.pdf

2 The appraisal of the fair value of any project activity assets at the end of the assessment period should adopt sound accounting procedures, financial and equity assessments and projections, and best international practices. The information should be presented in such a way that the assessment can be reproduced and a decision can be taken. Financial and non-financial costs should be discriminated, as should the expected return on the investment.

3 The amounts and data used to compile the investment analysis should reflect the date on which the decision is taken. The project's starting and reinitiation dates should also be taken into consideration, as should any other aspects that may affect the decision-taking process within the context of the CDM.

4 All the information should be presented in a clear and objective manner with the respective calculation logs, formulae and data, duly justified by the project participant and validated by the DOE, thereby ensuring the transparency of the process and minimizing any uncertainties in the assessment by the Registration and Issuance Team (RIT) and, particularly, the Executive Board.

5 Special attention is given to calculating the IRR and NPV and the precautions to be taken during the analyses are explained in detail in order to avoid double counting of costs and any other eventual methodological or conceptual inaccuracies in the presented statements. For example, amortization and debt servicing costs should not be included when calculating the IRR. Specific guidance is given on avoiding the double counting of costs and debt.

6 In cases where benchmark analysis is adopted, all the benchmarks for the weighted average cost of capital and other assumptions should be based on publicly available indicators in current use so they can be validated by the DOE and the calculations can be reproduced. Calculation and projection methods should obey internationally accepted and conservative protocols and practices. Particular capital market projections and assessments are unacceptable, pursuant to paragraph 4 of the "Tool for the demonstration and assessment of additionality", which states that benchmarks may not include subjective profitability expectations or the risk profile of a particular project developer.

7 There are, however, restrictions on the use of benchmark analysis which have to do with the fundamentals of additionality. The purpose of investment analysis in the context of the CDM is to determine if the project is less financially attractive than at least one alternative in which the project participants may be interested. In those

cases where this alternative also requires investments and the baseline emissions are based on it, the only means of determining if the project activity is less financially attractive is to undertake an investment comparison analysis.

8 Sensitivity analyses should have a variation range of +/-10%. Their main purpose is to determine the likelihood of a scenario other than the scenario presented, thereby providing a cross-check of the data and assumptions used in the development of the investment analysis.

Barrier analysis

This is used to determine whether there are one or more barriers jeopardizing the implementation of the proposed project activity. The evidence should be documented, transparent and based on a conservative approach. Some of the more common barriers can be found on the following list:

- investment barriers, such as difficulties in gaining access to financing sources;
- technological barriers, including technological risks, the unavailability of the technology in the region and the lack of skilled personnel and/or infrastructure to operate/maintain the technology;
- barriers due to prevailing practice, e.g. the project is the first of its kind; and
- other barriers, preferably specified in the underlying methodology as examples.

Common practice analysis

This test is a credibility check. Similar projects to the one proposed that are not CDM projects (registered or undergoing validation) and are operating in the region under similar conditions should be listed. The project developers should justify the purpose of these projects vis-à-vis the proposed project activity, showing that these activities are already diffused in the region. If there are many such similar activities, it will be necessary to show that the proposed project activity is not as economically or financially attractive or that there are barriers against its implementation in comparison with the others. If the necessary data on the similar projects is not available, the PDD should contain a justification of this unavailability. In short, it is necessary to explain why the other similar projects have been implemented without recourse to the CDM.

Details concerning additionality for small-scale and afforestation and reforestation projects can be found in items 2.5 and 2.6, respectively.

Project boundary

The project boundary is not a geographical concept, but encompasses all GHG emissions under the control of the project participants that are significant and reasonably attributable to the project activity.

Leakage

Leakage is defined as the increase in GHG emissions occurring outside the boundary of a CDM project which is both measurable and attributable to the project activity in question. Since leakage is part of the equation used to calculate the total number of CERs, all the possible negative aspects in terms of the project's GHG emissions in a conservative context should be taken into consideration.

When justifying their choice of methodologies, project participants must give details on how they have accounted for leakage.

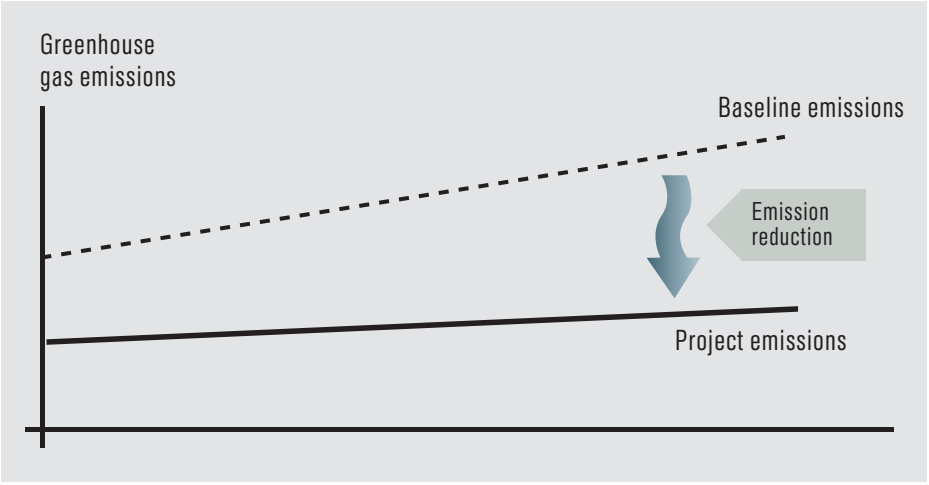
A good example of leakage is the replacement of an operational boiler with a new and more efficient one, with the old one being maintained as a back-up for occasional use. In this case, leakage would refer precisely to the occasional use of the less efficient equipment.

Net GHG emission reductions

The net reduction in GHG emissions is estimated in accordance with the following equation:

Net Emission Reductions = baseline emissions – project emissions – leakage

The figure below gives a better understanding of the way net emission reductions are calculated. It is worth noting that project activity emissions may exist and may even grow over time, as long as they remain less than the baseline figure. If they do not, then no CERs will be generated.



Monitoring plan

The PDD must contain a monitoring plan within the methodology chosen by the project participants. The project developer will use this plan to monitor the adopted measures.

The plan should create and maintain an archive documenting all relevant historical series; detailed information on all the steps involved in calculating emission reductions and leakage, in line with the usual process and environmental monitoring plan practices; measurement parameters and respective equipment or estimation methods; measurement frequencies; verification, quality controls and assurances; preventive maintenance programs and calibration; and other indispensable activities for verifying the accuracy of the process and the credibility of the results.

It should also meet the following objectives:

- **determine the baseline for and estimate or measure** anthropogenic GHG emissions by sources occurring within the project boundary during the crediting period;

- identify the **potential causes** of significant increases in anthropogenic GHG emissions by sources that occur **outside the project boundary**;

- assess **the environmental impact** associated with the project activity; and
- establish **emission factors and procedures** for the periodic calculation of **leakage** effects and, chiefly, **the reduction in anthropogenic emissions** generated by the project activity.

New methodologies

There are more than a hundred approved methodologies covering a wide range of sectors and specific cases[27]. Before assessing the project activity opportunities, therefore, it is important to verify the existence of an applicable methodology in order to reduce the cost of and the time spent on preparing the PDD.

However, sometimes none of these methodologies is applicable to a given project activity, in which case there are two possibilities: request a deviation from an existing methodology from the Executive Board; or propose a new one.

New methodologies are associated with project activities and must be submitted to the Executive Board as part of the PDD, with the F-CDM-NM[28] form duly filled in and accompanied by a description of the new baseline methodology.

This description should identify those cases where the new methodology is applicable and contain a complete assessment of its strengths and weaknesses, as well as key parameters, data sources, the assumptions used when estimating the baseline, baseline emission projections, the approach to potential leakage and an assessment of the uncertainties involved. This procedure may be both lengthy and costly.

The documentation submitted will be examined by a member of the Methodologies Panel who will give it a score of one or two. If it receives a score of two, it will be returned to the project participants for their revision; if it receives a score of one, it will be considered as received and will be analyzed by the Executive Board. As soon as it is received, the proposed new methodology will be available for public comment on the Convention's website during a 15-day period.

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27 See: http://cdm.unfccc.int/methodologies/PAmethodologies/approved.html?searchon=1&tsearchmode=advanced

28 Available at: http://cdm.unfccc.int/Projects/pac/howto/CDMProjectActivity/NewMethodology/index.html

After this process, the Methodology Panel will undertake a deeper analysis of the proposed new methodology and make recommendations, via a DOE, to the project participants. At this time, the project participants must clear up any relevant points with the Methodologies Panel, which will assess this content at its next meeting before sending its final recommendations to the Executive Board. The Board, at its next meeting, will designate it as either "A", for approved, or "C", for unapproved. If approved, the new methodology is made public and the DOE may proceed with the validation of the project activity.

Deviation

A deviation is a small modification to an approved baseline and/or monitoring methodology and occurs in cases where applicability conditions or specific characteristics do not match the methodology exactly but do not alter its essence. Whenever this occurs, the DOE will seek guidance from the Executive Board on the possible acceptance of this deviation without revising the methodology. This will be done by filling in and submitting the deviation request form F-CDM-DEV[29].

C. Commencement of the project activity and the crediting period

This section of the PDD should include the following data.

- Starting date of the project activity.
- Duration of the project activity in years and months.
- Choice of the crediting period and related information[30].
- If a renewable crediting period is chosen, the DOE should determine, and inform the Executive Board of, each renewal of the crediting period and if the original project baseline remains valid or if it has to be altered.
  - Starting date of the first crediting period.
  - Length of the first crediting period.
- If a fixed crediting period is chosen, its starting date and length must be given.

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[29] Available at: http://cdm.unfccc.int/Reference/PDDs_Forms/Registration/index.html

[30] The crediting period can only begin after the registration of the proposed project activity.

Commencement of the project activity

The starting date of the project is defined as the day on which real and effective action is taken regarding the development of a project activity (e.g. an equipment funding request). Accordingly, as of August 2, 2008, any decision to develop a CDM project activity within six months as of its starting date must be communicated to the DNA or the secretariat, pursuant to Annex 46 of the 41st meeting of the Executive Board.

At this point, it is worth explaining the concept and applicability of retroactive credits. These were created to encourage the development of CDM project activities before their complete functional framework was established. It was therefore determined that project activities begun as of 2000 could be analyzed subsequently and, if the case, approved as CDM projects. In these cases, emission reductions since 2000 could be accounted – these are the retroactive credits. However, the possibility of accounting these retroactive credits expired in March 2007.

Crediting period

The CDM rules envisage two crediting period options[31] for project participants:

(I) a 7-year period, with a maximum of two renewals, giving a maximum of 21 years; or

(II) a single 10-year period, without the possibility of renewal.

In the case of (i), at the end of each 7-year period the baseline and any other related issues (e.g. the emission factor used) will be reassessed in order to verify their continued validity and applicability. There are three possibilities: the project activity has ceased to be additional and will therefore not be renewed; the baseline has changed, requiring alterations; or the baseline remains unaltered and the original parameters can be used once again.

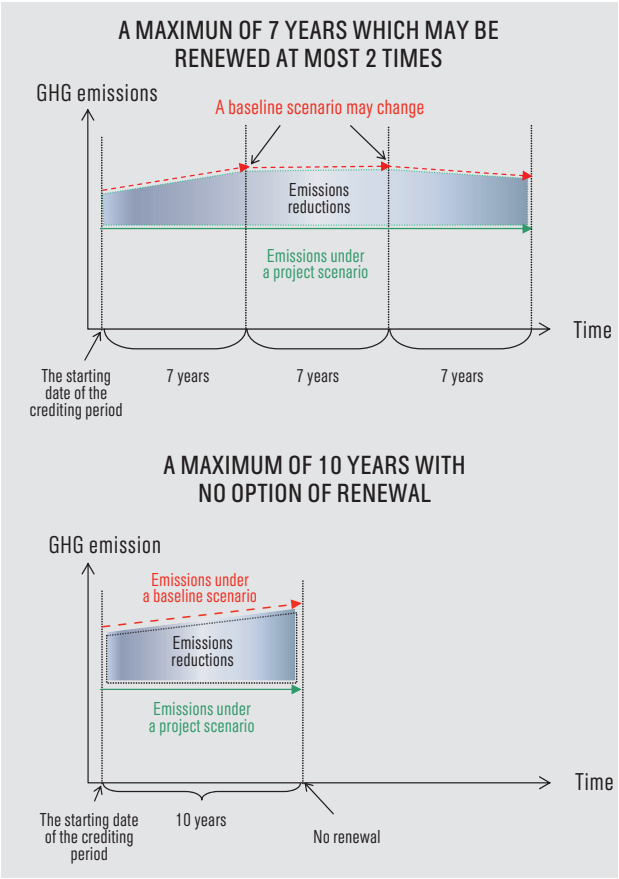
In this case, project participants must notify the secretariat of their intention to renew the crediting period between six and nine months prior to the final date of the current period. If this is not done, the project participants will be unable to request the issuance of CERs as of the end of the current crediting period and will continue to be prevented from doing so until the period renewal date.

[31] Item 2.5 deals with the crediting periods of small-scale projects; item 2.6 with those of afforestation and reforestation projects; item 2.7 with those of bundled activities; and item 2.8 with programmatic activities.

The DOE selected by the project participants for validation purposes will also be responsible for determining and notifying the Executive Board if the original project baseline is still valid or if it has been revised and updated. Once this is done, the DOE should submit a crediting period renewal request via the F-CDM-REN form, together with the updated PDD and the validation report. It is not necessary to obtain a new Letter of Approval, nor is there any renewal fee.

The secretariat will verify if the documentation is complete and, if so, the request will be made available to the public on the Convention's website for a 4-week period. Assuming there are no requests for revision, the crediting period will be deemed to have been renewed.

The figure below illustrates the difference between the crediting period options:



Source: IPCC Fourth Assessment Report, December 2007

D. Documentation and references on environmental impacts associated with the project activity

The "Environmental Impacts" item of the PDD should document the results of an analysis of the possible environmental impacts of the proposed activity both inside and outside the project boundary. If these impacts are considered significant by the project participants or the host Party, the results of an environmental impact assessment undertaken in accordance with the Term of Reference established by the host Party should be presented.

E. Stakeholders' comments

The consultation of different stakeholders includes a description of how they were invited to participate and how their comments were compiled. The project activity should be presented in a clear manner in order to facilitate and encourage stakeholder participation. Subsequently, all those who furnished comments should be identified. A synthesis of these comments and the way in which they were taken into account in decisions related to the project activity will also be included in the final version of the PDD which will then pass on to the validation and approval stages.

The process of consulting local stakeholders in Brazil has specific rules that are described in Appendix VI – the Manual for Submitting CDM Project Activities to the Interministerial Commission on Global Climate Change, pursuant to Resolution nº 7.

2.4.2 Validation and Approval

Validation

Validation is the independent evaluation of a project activity by a DOE, whose role is to confirm that the following points have been included in the PDD and dealt with appropriately:

- compliance with the eligibility criteria linked to the commencement of the project activity;
- compliance with the eligibility criteria;
- the voluntary nature of the project activity;

- indication of the respective Designated National Authorities (DNAs) by the participating Parties;
- additionality – a reduction in GHG emissions that would not have occurred in the absence of the registered project activity;
- appropriate consideration of comments by the stakeholders involved;
- documentation analyzing the environmental impacts associated with the project activity, duly submitted by the project participants to the DOE;
- the existence of leakage – GHG emissions occurring outside the project boundary but attributable to it;
- the baseline and monitoring methodologies chosen from among those previously approved by the Executive Board, or in accordance with the modalities and procedures for deviation and the preparation of a new methodology; and
- the crediting period.

The DOE is a certification body which must be accredited with the Executive Board in order to certify projects in specific sectoral scopes.

Approval

In order to move to the registration stage, a Letter of Approval (LoA) must be obtained from each Party involved in the project activity. These Letters are granted by the DNA of the host country[32] and, if the project is not a unilateral one, of the Parties of the project participants, and should contain:

- confirmation that the Party in question has ratified the Kyoto Protocol;
- confirmation that the Party in question is participating voluntarily in the CDM; and
- confirmation by the host Party that the project activity contributes to its sustainable development.

32 Brazil's Designated National Authority is the Interministerial Commission on Global Climate Change (see Chapter 3)

2.4.3 Registration

Once the Letter of Approval has been obtained, the DOE should fill in the registration request form (F-CDM-REG) and forward it to the Executive Board with the following documentation attached:

- Project Design Document (PDD);
- Letter of Approval from the DNAs of the Parties involved;
- Validation Report;
- information on how and when the Validation Report was made public;
- an explanation of how the stakeholders' comments on the project activity were taken into consideration;
- banking information related to payment of the registration fee[33]; and
- a signed declaration by the project participants defining the means of communication with the Executive Board, particularly regarding the instructions for CER allocation.

The registration request is deemed to have been received following payment of the registration fee and confirmation that the documentation sent by the DOE is complete. The registration process is concluded 8 weeks after delivery of the request to the secretariat.

The registration fee is used exclusively to cover the administrative costs of the CDM and its precise value depends on the emission reduction estimates declared in the PDD, in line with the following criteria:

(a) USD 0.10 per tonne of CO_2-equivalent for annual GHG reductions up to the first 15,000 metric tons of CO_2-equivalent;

(b) USD 0.20 per tonne of CO_2-equivalent for annual GHG reductions exceeding 15,000 metric tons of CO_2-equivalent.

[33] Banking information on the payment of this fee can be obtained by e-mail from secretariat@unfccc.int

No fee has to be paid for project activities with expected average annual emission reductions of less than 15,000 metric tons of CO_2-equivalent during the crediting period. The least-developed countries are also exempt[34]. The maximum registration fee is USD 350,000.

The Executive Board can count on the technical support of the Registration and Issuance Team (RIT), a group of specialists which assists the Board on issues related to project registration and CER issuance. In the case of registration, the RIT has 20 days to prepare an appraisal of the project and forward it to the secretariat which in turn will have 10 days to send a summary note of the appraisal to the Executive Board.

Following these procedures, assuming there are no requests for revision, the secretariat will deem the registration process to have been concluded. The project activity and its documents are considered registered and are then made public through the Convention's website, always respecting confidentiality provisions.

If any Party involved in a project or at least three members of the Executive Board believe that the applicable requirements have not been met, a revision of the project activity may be requested. This process should be concluded by (at the most) the second meeting following the revision request and should contain the Board's decision and a communication to the project participants and the public of the reasons for the revision. The final decision may be:

- registration of the project activity;
- registration of the project activity, provided the DOE and the project participants make the adjustments requested by the Executive Board; or
- rejection of the project activity.

Finally, it is worth noting that the Executive Board will bear all the costs of the revision, unless the DOE is deemed to be incompetent or acting in bad faith.

34 This is an informal group of countries whose characteristics, in terms of GDP and other indicators, justify their differentiated treatment regarding certain issues.

2.4.4 Monitoring

For the purpose of CDM procedures, monitoring refers to the collection and archiving of all relevant data necessary for determining GHG emission reductions, or net CO_2 removals, in accordance with the baseline and monitoring methodologies of the project activity. Project participants must execute these activities in accordance with the monitoring plan (see section B of item 2.4.1) contained in the registered PDD and which will be subsequently checked by the DOE in the verification phase.

On occasions, the registered monitoring plan may have to be revised and/or complemented in order to improve the precision and scope of the data. Any such revisions must be justified and submitted to the DOE for a new validation. The DOE is responsible for making the monitoring reports public through the Convention's website, whether they have been revised or not.

Monitoring plan revision requests are made whenever:

- the registered monitoring plan is not deemed to be consistent with the approved monitoring methodology applicable to the project activity; or
- a new monitoring modality is adopted – in such cases, the new modality must maintain or improve the level of accuracy or completeness required by the monitoring process.

CERs will only be issued for emission reductions or removals that have been duly monitored. Consequently, project participants must prepare a Monitoring Report for the period to be verified for the issuance of CERs and subsequently send it to the DOE for the verification and certification stage. There are no established rules governing the duration of the period to be verified, which may vary in accordance with the interest of the project participants, except in the case of afforestation and reforestation projects, which are dealt with subsequently in this Guide.

2.4.5 Verification and Certification

The periodicity of verification/certification is at the criterion of the project proponents. Clearly, there is a cost associated with the verification process and project participants should decide on the most appropriate moment for this procedure.

Firstly, the DOE will send the Monitoring Report prepared by the project participants to the secretariat which will make it public through the Convention's website.

The DOE will then verify if the monitored GHG emission reductions really occurred as a result of the CDM project activity. During the verification process, the DOE should:

- confirm that the project documentation provided is in accordance with the requirements of the registered PDD and other relevant decisions;
- conduct on-site inspections, if necessary, in order to:
  - check performance records;
  - interview project participants and local stakeholders;
  - collect data and measurements;
  - observe established practices;
  - test the accuracy of the monitoring methods and equipment;
  - check other relevant points;
- use additional data from other sources, if appropriate;
- review the monitoring results and verify that the monitoring methodologies for the estimation of reductions in GHG emissions or net CO_2 removals have been applied correctly and their documentation is complete and transparent;
- recommend to the project participants appropriate changes to the monitoring methodology for any future crediting period, if necessary;
- determine the reductions in GHG emissions, or net CO_2 removals, that would not have occurred in the absence of the registered project activity, in accordance with the monitoring plan in the PDD;
- identify and inform the project participants of any concerns relating to the conformity of the project activity and its operation with the registered PDD – in these cases, project participants should supply relevant additional information; and
- provide a Verification Report (which should be made publicly available) to the project participants, the Parties involved and the Executive Board.

Certification is the subsequent step to verification and consists of a written assurance by the DOE that, during a time period specified in the Monitoring Report, a project activity achieved the reductions in GHG emissions, or net CO_2 removals, as verified. The DOE will immediately disclose the Certification Report to the project participants, the Parties involved, the Executive Board and the public.

2.4.6 Issuance of CERs

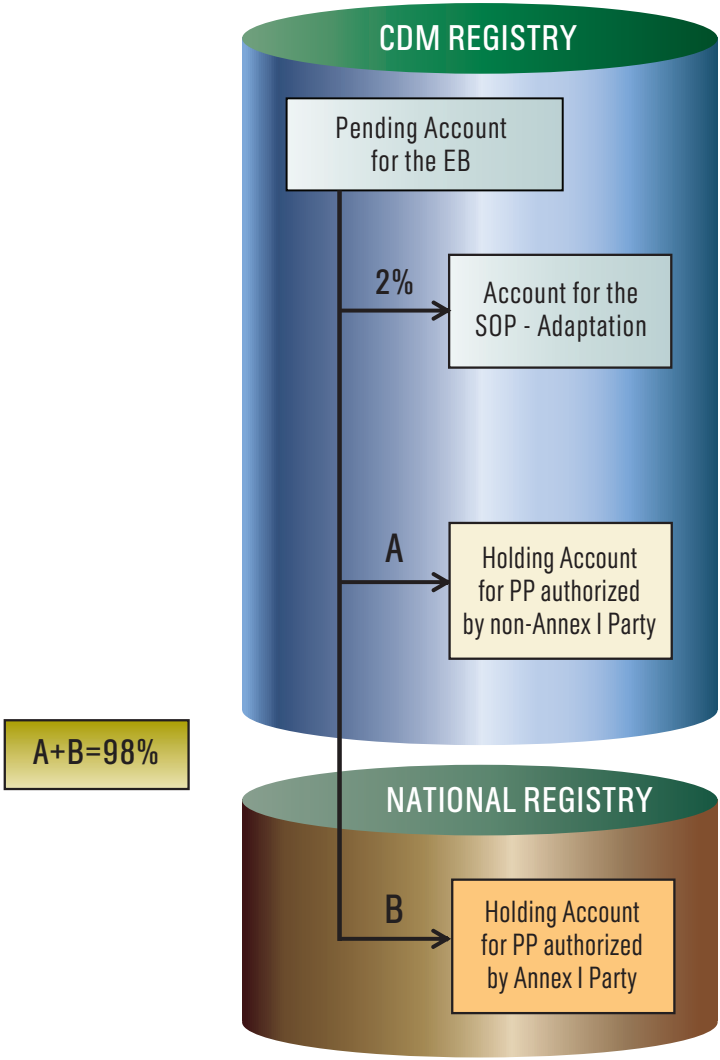
The Certification Report will include a request by the DOE to the Executive Board for the issuance of CERs equal to the certified amount of emission reductions (or removals in the case of afforestation and reforestation projects).

The secretariat appoints a member of the Registration and Issuance Team (RIT) to confirm that the verification and certification requirements have been complied with. This appraisal should be submitted to the secretariat within six days at the most, and the secretariat will have three days in which to send a summary note of the request to the Executive Board.

Issuance of the CERs will occur, automatically, 15 days after receipt of the issuance request, unless one of the Parties involved in the project activity or at least three members of the Executive Board request a review of the proposed issuance of CERs.

Such reviews will only be requested in cases of fraud, poor procedures or incompetence on the part of the DOE. In these cases, the Executive Board should complete the review within 30 days. If the Executive Board rejects the Certification Report, the DOE may appeal. If this is also rejected, there are no grounds for further appeal.

After the Executive Board has approved the Certification Report, whether it has been subjected to review or not, the CERs will be issued into a pending account of the Executive Board in the CDM Registry. The issuance should be made public through the Convention's website. Only then can the focal point of the project activity request the transfer of the CERs to an account (i) in the CDM Registry; or (ii) in any other national registry. This transfer must respect the established agreements between the project participants regarding the distribution of the CERs. The following figure summarizes this process:



Registry System

The registry system was established to ensure the transparency and credibility of the transaction system of the Kyoto Protocol's units and consists of three sub-systems: the CDM Registry, the National Registries and the ITL (International Transaction Log). A description of each of these sub-systems follows.

CDM Registry

The CDM Registry was created by the Executive Board for the issuance, maintenance and transfer of CERs by the non-Annex I Parties and the project participants authorized by them. It is an electronic system very similar to a banking system and is administered by the secretariat. The CERs are issued and transferred to the accounts of the project participants of the non-Annex I Parties in the CDM Registry or transferred to the accounts of the project participants of the Annex I Parties in their respective National Registries. The transfer of CERs between accounts within the CDM Registry is not permitted.

The CDM Registry is also responsible for publishing non-confidential information regarding accounts, project activities, transactions and other matters. It maintains the following accounts:

(1) Pending account of the Executive Board, into which the CERs are issued before being transferred to other accounts. [CMP/2005/8/Add.1, p27 para3(a)]

(2) Holding account of a non-Annex I Party hosting a CDM project activity or requesting an account. Accounts can be opened for project participants authorized by the non-Annex I Party. [CMP/2005/8/Add.1, p27 para3(b)]

(3) Accounts for the cancellation of excess CERs, for the cancellation of Kyoto Protocol units equal to excess CERs issued, as determined by the Executive Board. [CMP/2005/8/Add.1, p27 para3(c)]

(4) Account for the cancellation of tCERs and lCERs which have expired in a holding account of the CDM Registry and for lCERs that have become ineligible. [CMP/2005/8/Add.1, p80 para3]

(5) Account for the share of proceeds, created to hold and transfer CERs corresponding to SOP-Adaptation (2% of the proceeds from CDM project activities which are sent to the Adaptation Fund). [CMP/2005/8/Add.1, p27 para3(d)]

National Registries

A National Registry should be established and maintained by each Annex I Party to ensure the correct accounting of the issuance, maintenance, transfer and acquisition of the various units envisaged by the Kyoto Protocol, the trading of CERs between National Registry accounts being permitted. Each Party designates an organization to administer its National Registry. National Registries may have their own national rules, but must respect the international rules governing CER trading (overseen by the ITL) and maintain a standardized electronic database. Regional Registries are also permitted (e.g. the EU Registry).

National Registries are also responsible for publishing, on the Internet, non-confidential information regarding accounts, the total number of units, project activities and those bodies authorized by the Party to participate in the mechanisms of the Kyoto Protocol, among other matters.

The types of unit are listed below:

Acronym	Definition
AAU	**Assigned Amount Unit** – allocated based on the emission levels to be achieved
RMU	**Removal Unit** – additional units created by the Annex I Parties for the removal of CO_2
ERU	**Emission Reduction Unit** – units converted under Joint Implementation
CER	**Certified Emission Reductions** – additional units of the CDM
lCER	**Long-term certified emission reductions** – additional units of the CDM for afforestation and reforestation
tCER	**Temporary certified emission reductions** – additional units of the CDM for afforestation and reforestation

It should be noted that all the units have a unique serial number assigned in accordance with the model shown below:

1	XX
2	1
3	-
4	000,000,000,000,001
5	999,999,999,999,999
6	01
7	01
8	1
9	0000001
10	1
11	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 (supplementary transaction log)
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

National Registry account types are listed below.

(1) Account of the Annex I Party.

(2) Account of each entity authorized by the Party to maintain units of the Kyoto Protocol.

(3) Cancellation account, to cancel Kyoto Protocol units associated with land use, land use change and forestry activities should such activities result in GHG emission sources.

(4) Cancellation account for non-compliance, to cancel Kyoto Protocol units equal to 1.3 times the amount of excess emissions should the Party not comply with the targets of the first commitment period.

(5) Account for other cancellations by the Party, to cancel Kyoto Protocol units for reasons other than those in (3) and (4) above.

(6) tCER replacement account, to cancel AAUs, CERs, ERUs, RMUs and/or tCERs for the purpose of replacing tCERs prior to expiry. [FCCC/KP/CMP/2005/8/Add.1, p71 para43]

(7)) ICER replacement account, to cancel AAUs, CERs, ERUs, RMUs and/or ICERs for the purpose of replacing ICERs. [FCCC/KP/CMP/2005/8/Add.1, p71 para47]

(8) Retirement account, used to retire Kyoto Protocol units valid for the commitment period in question, in order to comply with the quantified commitments of the Party. [FCCC/KP/CMP/2005/8/Add.2, p27 para14]

International Transaction Log (ITL)

The ITL is an essential part of the CDM's institutional model, controlling, via an electronic database, the transfer and acquisition of units between all the registries as well as being responsible for the associated communications.

Recently the European Community's Transaction Log (CITL) was connected to the ITL, permitting greater liquidity in the carbon trading market.

The ITL is maintained by the secretariat, and its function is to verify transactions involving Kyoto Protocol units, including issuances, transfers, acquisitions, cancellations, maturities, replacements and withdrawals. It therefore has the power to automatically interrupt any transaction that breaks the rules of the Kyoto Protocol, thereby ensuring its integrity.

Annex I Parties can carry out transactions in the units cited above through the ITL. Since Brazil is not an Annex I Party, it does not have a national registry, only an account in the CDM Registry. Non-Annex I Parties cannot carry out such transactions.

PROJECT CYCLE SUMMARY TABLE

The table below, which may serve as a guide for project activity proponents, contains a summary of all the stages of the project cycle covered so far. Those stages from monitoring (stage 5) to the issuance of CERs (stage 7) can be repeated on numerous occasions, their precise periodicity being at the criterion of the project participants and limited to the duration of the project activity.

Stage	Definition	Responsible Entity	Activity Document
1 Preparation of the Project Design Document - PDD	Project participants prepare the PDD for a project activity eligible under the CDM. This should contain details on the project activity's essential technical and organizational aspects, as well as information on the selected baseline and monitoring methodologies. It is the basis for all the subsequent stages.	Project Participants (PP)	PDD
2 Validation	Validation is the independent evaluation of a project activity by a Designated Operational Entity.	Designated Operational Entity (DOE)	Validation Report
3 Approval	Approval is the process whereby the Designated National Authorities of the Parties involved confirm voluntary participation and the DNA of the host Party attests that the activity in question contributes to its sustainable development.	Designated National Authority (DNA)	Letter of Approval (LoA)
4 Registration	Registration is the formal acceptance, by the Executive Board, of a project validated as a CDM project activity. Project participants must pay a registration fee in this stage of the cycle.	CDM Executive Board	Registry
5 Monitoring	The process of monitoring a project activity includes the collection and archiving of all relevant data necessary for determining GHG emission reductions (or net CO_2 removals) in accordance with the monitoring plan established by the methodology indicated in the registered PDD.	Project Participants (PP)	Monitoring Report

Stage	Definition	Responsible Entity	Activity Document
6 Verification and Certification	Verification refers to a periodic independent audit by a DOE to review calculations of GHG emission reductions or net CO_2 removals resulting from a CDM project activity registered by the Executive Board. This process verifies ex-post emission reductions (or net CO_2 removals) that effectively occurred.	Designated Operational Entity (DOE)	Verification Report
	Certification is the written assurance that a project activity has achieved a determined level of GHG emission reductions (or net CO_2 removals) within a specified time period.	Designated Operational Entity (DOE)	Certification Report
7 Issuance	The stage in which the Executive Board confirms that the GHG emission reductions (or net CO_2 removals) resulting from a project activity are real, measurable and long-term. Once this has been done, the Executive Board may issue the CERs which are subsequently credited to the participants of a project activity in the proportion defined by them. CERs may be used by Annex I Parties to offset part of their emission reduction targets.	CDM Executive Board	CERs

It should be emphasized that any meeting of the Executive Board may result in new resolutions altering documents, forms, tools and procedures. Consequently, prior to the conception of a project activity, it is advisable to consult the Convention's website on a regular basis (http://cdm.unfccc.int).

The procedures described above apply in general to all CDM projects. However, certain types of project have distinctive characteristics. These are small-scale projects, forestry projects, bundled projects and programmatic activities, which are dealt with in more detail in items 2.5, 2.6, 2.6.1, 2.7 and 2.8, where their distinct characteristics will be highlighted. Nevertheless, the general guidelines addressed in item 2.4 (Project Cycle) still apply.

2.5 Small-scale Project Activities (CDM-SSC)

Given that the CDM's structure was originally conceived for large-scale projects, it was decided to simplify modalities and procedures to enable small-scale (SSC) projects, but without jeopardizing the integrity of the Protocol. These were drawn up at COP 8 in 2002. Small-scale forestry projects are dealt with in item 2.6.1.

Consequently, small-scale projects can also contribute to mitigating GHG emissions, with costs and time scales compatible with their size. Such projects must fall into one of the following three types:

1 renewable energy project activities with a maximum output capacity of up to 15 MW (or an appropriate equivalent);

2 energy efficiency improvement project activities which reduce energy consumption, on the supply and/or demand side, by up to 60 GWh per year (or an appropriate equivalent); and

3 other project activities that result in emissions equal to or less than 60,000 metric tons of carbon dioxide equivalent per year.

The PDD form for small-scale project proponents (CDM-SSC-PDD[35]) has fewer requirements to be filled in than the PDD described in item 2.4.

It is worth emphasizing that the issuance of CERs is limited to the quantity established for each small-scale project modality, i.e. if a project oversteps the emission reduction limit established for small-scale projects, reductions above this limit will not be converted into CERs.

The aim of the simplified modalities is to reduce the cost of small-scale projects and simplify its procedures. However, it is not acceptable that large-scale projects debundle to benefit from these modalities. Consequently, all small-scale projects must prove that they do not result, or will not result, from the debundling of a large-scale project. Project participants must therefore declare in the PDD that there is no other project registered or applying for registration:

35 See: http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/index.html

- with the same project participants;
- in the same category and using the same technology/measure;
- registered within the previous two years; or
- whose project boundary is within 1 km of the project boundary of the proposed small-scale project activity.

These restrictions do not apply if the sum of the proposed project activities does not exceed the established small-scale limits. For example, two nearby 5MW and 8MW hydroelectric plants which belong to the same project participant may request registration in the same year using a small-scale methodology since their joint installed capacity does not exceed 15 MW.

The specific features of small-scale project activities are presented below.

Additionality

Small-scale projects have a simplified tool to demonstrate additionality[36] – "Information on Additionality (Attachment A to Appendix B)", which lists the barriers that project participants must use to demonstrate that a given small-scale project activity would not have occurred anyway (i.e. is additional).

In order to clarify this issue, the 35th meeting of the Executive Board resolved that project participants would have to explain how the project activity would not have occurred due to at least one of the barriers listed below, for which they must provide independent, documented and transparent evidence, such as national/international statistics, national and regional legislation and policies, studies/research by independent agencies, etc.

(a) Investment barriers: a financially more viable alternative to the project activity would have led to higher emissions. This option includes a comparative investment analysis using a relevant financial indicator, benchmark analysis or a simple cost analysis (where CERs are the only source of revenue from the project activity).

[36] "Information on Additionality (Attachment A to Appendix B)" is available at: http://cdm.unfccc.int/methodologies/SSCmethodologies/AppB_SSC_AttachmentA.pdf

(b) Technological barrier: an alternative to the project activity using a tried but less advanced technology involves lower risks than a new technology, but may result in higher emissions. On the other hand, the adoption of a new, low-emission technology may bring risks associated with performance, the lack of trained personnel to maintain and operate the technology and lack of infrastructure, as well as those risks inherent to new technologies themselves.

(c) Barrier due to prevailing practice: prevailing practice or existing legal or policy requirements would have led to implementation of a technology with higher emissions. This includes a demonstration that the project is among the first of its kind in terms of technology, geography, sector, type of investment and investor, market, etc.

(d) Access-to-finance barrier: the project activity could not access appropriate capital without considering the CDM revenues. One example would be a requirement/condition imposed by a bank that the CDM must be implemented in order for the financing to be approved.

(e) Other barriers: without the project activity, for any other reason identified by the project participant, such as institutional barriers or limited information, managerial resources, organizational capacity, or the capacity to absorb new technologies, emissions would have been higher.

Additional methodologies and categories for small-scale projects

Methodologies are simplified to reduce baseline and monitoring plan development costs. The Executive Board, with the support of the secretariat, prepares small-scale methodologies and makes them available, although project participants who wish to do so may propose new methodologies or alterations to the baseline or the monitoring plan.

Additional categories to the existing ones can also be proposed for consideration by the Executive Board. This process should be executed by filling in the specific form (F-CDM-SSC-Subm).

Small-Scale Project Working Group (analogous to the Methodologies Panel)

Requests for the inclusion of new technologies or sectoral scopes should be sent at least four weeks prior to the next meeting of this Group so they can be examined at that meeting.

More flexible time scales

The appraisal of a project for registration purposes by a member of the Executive Board must be submitted to the secretariat in up to 15 days (versus 20 for large-scale projects), which in turn will have five days (versus 10 for large-scale projects) to prepare a summary and send it, together with the appraisal, to the Executive Board. Finally, the Board will have four weeks as of its reception of the registration request (versus eight weeks for large-scale projects) to decide on registration, assuming there are no requests for revisions.

A single DOE for validation and verification

The validation of a project activity, as described in item 2.4, must be handled by a DOE. For small-scale activities, the same DOE can be used for validation and verification.

Fees

The registration fee for small-scale activities, payable with the registration request, is calculated according to the same guidelines used for large-scale projects, remembering that project activities with expected average annual emission reductions of less than 15,000 metric tons of CO_2-equivalent during the crediting period are exempt.

2.6 Afforestation and Reforestation (A/R)

Unlike CDM projects to reduce emissions, CDM forestry projects (afforestation and reforestation activities) are developed to remove CO_2 from the atmosphere through the photosynthesis of human-induced forest formed through afforestation or reforestation (A/R)[37].

In order to prepare a project activity of this type, it is necessary to be thoroughly conversant with the basic A/R concepts.

Firstly, it is important to know the CDM definition of a forest, which is a minimum area of land of 0.05-1.0 hectare (1.0 hectare in Brazil) with tree crown cover (or equivalent stocking level) of more than 10-30% (30% in Brazil) with trees with the potential to reach a minimum height of 2-5 meters (5 meters in Brazil) at maturity *in situ*.

Two other basic concepts are afforestation and reforestation.

Afforestation

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

Reforestation is the direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was previously forested but is now non-forested.

In general, the requirements for the A/R project cycle are similar to those of emission-reducing activities, but there are some important differences that are worth highlighting.

[37] As decided by the Marrakesh Accords, during the first commitment period, land use, land use change and forestry activities (sinks) are limited to afforestation and reforestation.

The main difference is that, in the case of afforestation and reforestation, the **removal leads to temporary carbon storage** (given the vulnerability of the forests to external events, pests and climate change itself), while the **reduction of emissions is permanent**. This means that there is no guarantee that the carbon stored in the forests will be safe from pests, disease, natural disasters or human intervention which may result in its being returned to the atmosphere. This is known as non-permanence.

There are two specific A/R crediting period alternatives:

- a 20-year period, with the possibility of two renewals, giving a maximum of 60 years. In this case, as with other types of project, the baseline will be reassessed on each renewal; or

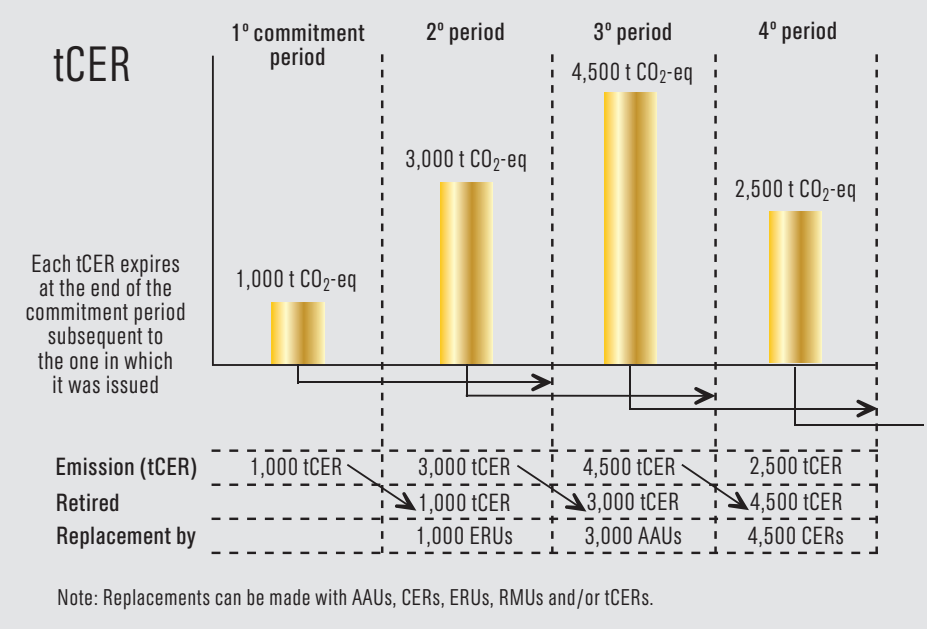
- a single 30-year period, without the possibility of renewal.

As mentioned above, a fundamental distinction of A/R projects is that their reduction certificates are temporary, given the potential non-permanence of the forests. Project participants should select, *a priori*, the type of reduction certificate for their project as follows:

Temporary certified emission reductions[38] **(tCER)** – A tCER is a temporary CER issued for an A/R CDM project activity which expires at the end of the commitment period following the one during which it was issued.

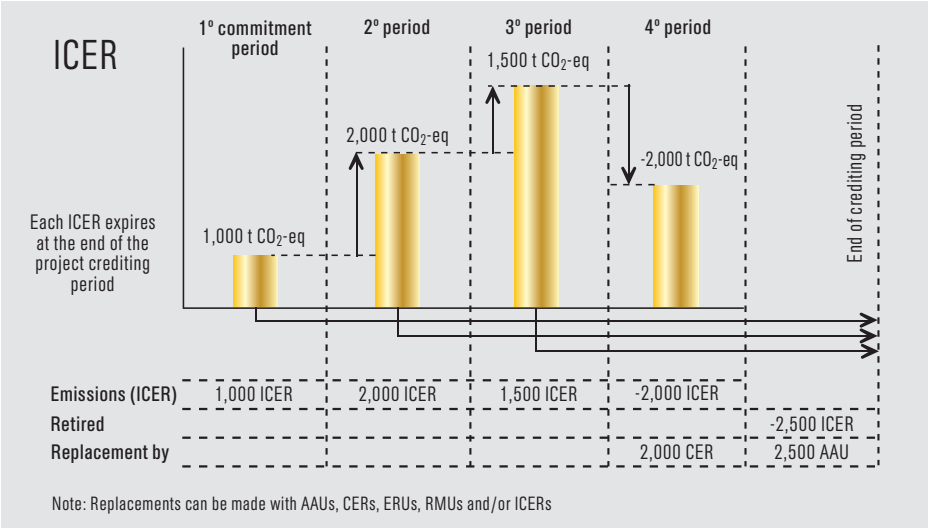
[38] Although both tCERs and lCERs quantify removals and not emission reductions, a single nomenclature has been maintained for standardization purposes.

Before the end of this period, a new verification will quantify the carbon stocks within the project boundary and the corresponding tCERs will be issued. Thus any alterations during the commitment period will be taken into account. Due to this limitation, the validity date is a mandatory element in its identification number. The following figure illustrates how the issuance of tCERs works.



Note: Replacements can be made with AAUs, CERs, ERUs, RMUs and/or tCERs.

Long-term certified emission reductions[39] (lCER) – An lCER is a long-term CER issued for an A/R CDM project activity which expires at the end of the crediting period of the project activity for which it was issued; or, if a renewable crediting period has been selected (in accordance with the renewal procedures below), at the end of the project activity's final crediting period. As with tCERs, the validity date is a mandatory element in its identification number. The following figure illustrates how the issuance of lCERs works:



Before beginning an A/R project activity, participants should indicate the boundary of their project activity, which does not necessarily have to be a contiguous area of land. Removals by sinks are estimated within the project boundary.

The initial step in an A/R project is to demonstrate the eligibility of the land where the project activity is expected to occur. In order to be eligible, the land in question must not have been forested since the end of 1989, in the case of reforestation projects, and for at least 50 years, in the case of afforestation projects. The demonstration that the land does not contain forest should also show that it is not temporarily unstocked, i.e. that it will not revert to forest through human activity or natural regeneration.

[39] Although both tCERs and lCERs quantify removals and not emission reductions, a single nomenclature has been maintained for standardization purposes.

It should be noted that areas that may, without human intervention, reach the minimum forest limits (30% tree crown cover with trees with the potential to reach a minimum height of five meters) are not eligible. The eligibility of an A/R project activity can be demonstrated by the following:

- aerial photographs or satellite imagery complemented by ground reference data;
- ground-based surveys (land use authorization or plans, information from local registers and cadastres, ownership registers, or land use or land use management registers); and
- land use or land cover information from maps or digital spatial datasets.

If these precise methods cannot be used, project participants may prove the eligibility of the land through written testimonials.

Any GHG emissions caused by the implementation of the project must be taken into account when calculating net removals.

The particular procedures for obtaining credits for A/R project activities are described below.

Preparation of the PDD

The A/R PDD form (CDM-AR-PDD) should be filled in, following the same guidelines as in item 2.4 Project Cycle.

Baseline and monitoring methodology

As explained in item 2.4 Project Cycle, project participants may choose an existing methodology or propose a new one – a list of approved methodologies is available on the Convention's website[40]. If a new methodology is proposed, the process is similar to that described under Project Cycle, except that there is a specific body to examine and prepare recommendations regarding these proposals – the Afforestation and Reforestation Working Group.

[40] See: http://cdm.unfccc.int/methodologies/ARmethodologies/approved_ar.html

Validation and Approval

Validation is the process of independent evaluation of an A/R project activity by a DOE, in accordance with the requirements stated in Decision 5/CMP.1. The procedures for validating and approving A/R project activities follow the same guidelines as in item 2.4 Project Cycle.

Registration

The Executive Board has established a specific registration fee for A/R project activities to cover administrative costs, payable when the activity is submitted for registration. Its value is based on the project activity's estimated annual GHG removals:

(a) USD 0.10 per tonne of CO_2-equivalent for annual GHG removals up to the first 15,000 metric tons of CO_2-equivalent; and

(b) USD 0.20 per tonne of CO_2-equivalent for annual GHG removals exceeding 15,000 metric tons of CO_2-equivalent.

No fee has to be paid for project activities with expected average annual emission reductions of less than 15,000 metric tons of CO_2-equivalent during the crediting period. The maximum registration fee is USD 350,000.

Independently of the calculation adopted, the registration fee should be deducted from future amounts paid to cover administrative costs. Additionally, if the activity is not finally registered, any registration fee above USD 30,000 will be reimbursed to the project participants.

Monitoring

Monitoring procedures for A/R project activities follow exactly the same guidelines as those explained in item 2.4 Project Cycle.

Verification and Certification

As per the Project Cycle guidelines, A/R project participants can choose the initial verification date of the project activities, but subsequent verifications must take place every five years. The certification process is identical.

Additionality

An A/R CDM project activity is additional if the actual net GHG removals are increased above the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the registered project activity.[41]

There is a specific tool for demonstrating the additionality of A/R projects[42], as well as a combined tool for demonstrating additionality and identifying the baseline[43], which detail the concepts built into the above definition. Neither is applicable to small-scale projects. There is considerable similarity with those procedures used to demonstrate the additionality of emission-reducing projects. The main differences are listed below, although it is always wise to consult the original document.

1 If a project activity began before its registration date, evidence must be provided that the starting date was after December 31, 1999, and that the obtaining of carbon credits was seriously considered, based on (preferably official, legal and/or other corporate) documentation. The crediting period should date from the commencement of the project activity and the credits (tCERs and lCERs) can be requested as of that date.[44]

2 If one of the possible project alternatives does not comply with the applicable legislation, it must be shown that such non-compliance occurs in at least 30% of the smallest administrative unit that encompasses the project activity.

3 The tool identifies certain specific examples of barriers for consideration.

- **Investment barriers,** other than those considered in the investment analysis (i.e. similar activities have only been implemented with non-commercial financial

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41 Decision 19/CP-9, paragraph 18.

42 "Tool for the Demonstration and Assessment of Additionality in A/R CDM Project Activities", version 02, available at: http://cdm.unfccc.int/Reference/Guidclarif/methAR_tool03_v02.pdf.

43 "Combined tool to identify the baseline scenario and demonstrate additionality in A/R CDM project activities", version 01, available at: http://cdm.unfccc.int/Reference/Guidclarif/methAR_tool07_v01.pdf.

44 "Clean development mechanism revised guidelines for completing the project design document for A/R (CDM-AR-PDD), the proposed new methodology for A/R: baseline and monitoring (CDM-AR-NM)" – Version 08, Section B.1, available at: http://cdm.unfccc.int/Reference/Guidclarif/pdd/PDD_guid03_v08.pdf.

terms, funding is not available for this type of project, there is no access to foreign funding due to the country's credit rating, or there is no access to credit).

- **Institutional barriers** (i.e. risks related to political uncertainties or lack of enforcement of forest legislation).

- **Technological barriers** (i.e. lack of access to planting materials or infrastructure to implement the technology).

- **Barriers related to local tradition** (i.e. traditional knowledge or the lack thereof, laws, customs, market conditions, practices, traditional equipment and technology);

- **Barriers due to prevailing practice** (i.e. the project is the first of its kind in the country or region);

- **Barriers due to local ecological conditions** (i.e. soil degraded by water/wind erosion, salination, etc.; natural or human-induced catastrophes such as landslides or fire; unfavorable weather conditions; pervasive opportunistic species preventing the regeneration of trees; unfavorable course of ecological succession; biotic pressure in terms of grazing or fodder collection);

- **Barriers due to social conditions** (i.e. demographic pressure on the land, social conflict among groups in the region, widespread illegal practices, lack of properly trained manpower, lack of organization of local communities);

- **Barriers relating to land tenure, ownership, inheritance, and property rights** (i.e. communal ownership, lack of suitable land tenure legislation, lack of suitable legislation in relation to natural resources and services, risks of fragmentation of land holdings);

- **Barriers related to markets, transport and storage** (i.e. informal markets that prevent the transmission of information to project participants, A/R activities in remote areas that are difficult to access, price fluctuations throughout the project period due to the lack of efficient markets and insurance, difficulties in guaranteeing value from or adding value to production).

Finally, it should be noted that the existence of additionality demonstration and evaluation tools does not prevent project participants from submitting alternative methods for examination by the Executive Board.

2.6.1 Small-scale Afforestation and Reforestation Projects

Small-scale afforestation and reforestation project activities (SSC-AR) are those that are expected to generate net anthropogenic GHG removals by sinks of less than 16,000 metric tons of CO_2 per year. Additionally, this type of activity must be implemented by low-income communities to be identified by the host Party[45]. Before sending the Validation Report to the Executive Board, the DOE should receive a written declaration from the project participants stating that this condition has been met.

If a small-scale A/R project activity result in removals of more than 16,000 metric tons of CO_2 per year, the excess will not be eligible for tCERs or lCERs.

As with small-scale emission reduction projects, the modalities and procedures for small-scale A/R project activities are simplified in order to reduce transaction costs.

In addition, like their small-scale reduction counterparts, small-scale A/R project activities:

- are exempt from the 2% fee levied on CERs to assist those developing country Parties who are particularly vulnerable to the adverse effects of climate change; and
- pay lower non-reimbursable registration fees and contribute less to the administrative costs of the CDM.

Baseline and monitoring methodologies are also simplified, reducing transaction costs. Finally, the same DOE can be used for the validation and verification stages.

All other procedures are identical to those for large-scale A/R project activities.

[45] In Brazil, low-income communities whose members are involved in developing and implementing project activities are defined as those with a monthly family income of up to 0.5 of a minimum wage – CIMGC Resolution no. 3 of March 24, 2006.

2.7 Bundling

Bundling is an important project facilitator and consists of the grouping together of two or more small project activities to form a single activity, e.g. one involving several small-scale hydroelectric plants. Together with their registration request, project participants must present a written declaration attesting to the fact that all the participants have agreed to unite into a single project and indicating one of the participants to represent the group in communications with the Executive Board. Project participants wishing to bundle their activities must fill in a specific form (F-CDM-BUNDLE). Each unit (small-scale hydro plants in our example) must inform the others of their projects and, once approved, no units may be added to or removed from the bundle. All project activities in the bundle will have the same crediting period. This is only possible if they are of the same type and category and use the same technology/measure.

Two project activities will be considered to have the same technology should they so declare and if they use the same equipment and conversion processes. Two activities are considered to have the same measure if they constitute the same course of action and produce the same type of effect.

A single DOE may validate the entire bundle. When a registration request is submitted, a registration fee will be paid in accordance with the estimated annual reductions of the group as a whole.

The group may adopt a single monitoring plan or each participant may use their own – this will be determined by the DOE on validation (only groups with the same type and category and using the same technology/measure can have a single monitoring plan for all).

If any Party involved in the project, or at least three members of the Executive Board request a revision of the project activity, this will apply to the whole group. Finally, in the issuance stage, only the participant responsible for communicating with the Executive Board may instruct the Board on the distribution of the CERs.

2.8 Programme of Activities (PoA)

In response to the need to attribute scale to the CDM projects, COP/MOP 1, in Montreal, created a new category of projects consistent with existing CDM regulations – the Programme of Activities (PoA), often called Programmatic CDM.

A PoA is a voluntary coordinated action by a private or public entity which implements any policies/measures or stated goals and which consists of an unlimited number of CDM Programme Activities (CPAs). In other words, it functions as an umbrella encompassing several similar CPAs.

As with the other types of project activity, the first step in the cycle is to prepare a PDD-type document (CDM-PoA-DD[46]), comprising the following elements:

- a general description of the PoA;
- the duration of the PoA;
- an environmental analysis;
- stakeholder comments;
- application of a baseline and monitoring methodology to a typical CPA within the PoA;
- contact information on the coordinating entity and the PoA participants;
- information on public funding sources;
- baseline information; and
- monitoring plan.

A CPA is defined as a measure, or a set of interrelated measures, designed to reduce GHG emissions (or result in net CO_2 removals by sinks in the case of A/R projects). CPAs within a PoA must meet the following criteria:

- use approved baseline and monitoring methodologies;

[46] This form, plus others related to Programmes of Activities, can be found at: http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html

- define an appropriate project boundary;
- avoid double counting;
- account for leakage;
- ensure that the emission reductions are real, measurable and verifiable; and
- ensure that the emission reductions are additional to any that would occur in the absence of the project activity.

Each CPA within the PoA will require its own PDD (CDM-CPA-DD) in accordance with the provisions of the respective registered PoA design document (CDM-PoA-DD), which includes a model of the CPA-DD and identifies, locates and defines it. The CPA-DD is a simpler document and contains the following elements:

- a general description of the CPA;
- eligibility of the CPA emission reduction estimate;
- an environmental analysis;
- stakeholder comments;
- contact information on the coordinating entity/individual responsible for the CPA;
- information on public funding sources;
- baseline information; and
- monitoring plan.

There are specific documents for afforestation and reforestation PoAs and CPAs (CDM-PoA-DD-AR and CDM-CPA-DD-AR, respectively).

A PoA should be proposed by a coordinating/managing entity which shall be a project participant authorized by the DNA(s) of the participating country(ies) and identified as the interface with the Executive Board. This entity will be responsible for adopting measures to ensure that no CPA within the PoA is registered as an individual activity under the CDM or is included in another PoA.

In accordance with the project cycle, these measures will be duly validated and verified by a DOE. Project participants should enter into an agreement with the coordinating/managing entity and inform it of their positions regarding the distribution of the CERs, changes in the project participants and the participant responsible for communicating with the Executive Board.

It is worth emphasizing that a PoA must be in agreement with all Executive Board guidelines on issues related to local, regional and national policies and regulations.

Thus, if there is any law in the host country making similar projects to the proposed PoA mandatory, then the Programme will not be accepted. PoAs whose purpose is the subject of mandatory regulation will only be permitted if they can demonstrate that this legislation is not being enforced or if the PoA increases the level of enforcement beyond the mandatory level.

PoAs can also extend beyond one country, provided each non-Annex I Party participant confirms that the PoA in question contributes to its sustainable development.

All methodologies valid for CDM project activities are also valid for CPAs.

In order to comply with the eligibility criteria defined in the PoA, all the CPAs will have to adopt the same baseline and monitoring methodology, use a single methodology and technology, and be developed within the same type of installation or land unit.

There are also specific rules for changing methodologies. Whenever a given PoA methodology is suspended or withdrawn, no new CPA can be added to this PoA. When the alteration has been effected, new CPAs must adopt it; however, those CPAs already included in the PoA may only adopt the alteration at the next renewal of the crediting period – until then they will continue to use the old methodology.

If a PoA is composed of CPAs that do not surpass the CDM's definition of small scale, the CPAs may use approved small-scale methodologies, provided they are revised whenever necessary to take account of the leakage of the CPA in question. The respective PoA and CPA PDD documents are the CDM-SSC-POA-DD and the CDM-SSC-CPA-DD.

As with small-scale CDM projects, CPAs considered to be the result of debundling cannot benefit from the simplified modalities. A small-scale PoA project will be deemed to be a debundled part of a large-scale one if there is already an activity that:

- has the same activity implementer as the proposed small-scale CPA or has a coordinating entity which also manages a large scale PoA of the same sectoral scope; and, at the same time,

- has a boundary within 1 km of the boundary of the proposed small-scale CPA.

In order to be accepted, a CPA must demonstrate that its emission reductions by sources or removals by sinks are measurable. In other words, no type of indirect counting is permitted nor can economy of scale be used to measure different CPAs within a PoA.

The monitoring plan associated with the methodology adopted by the PoA must be used to monitor reductions in anthropogenic GHG emissions by sources or removals by sinks for each CPA. However, the CPAs may be monitored by sampling, provided that GHG reductions or removals can be accurately verified.

The duration of a PoA may not exceed 28 years (60 years for A/R PoAs) and must be defined by the coordinating entity at the time when PoA registration is requested. Each CPA will have its own crediting period, whose maximum duration is seven years (20 years for A/R PoAs), with the possibility of two renewals; or a fixed period of 10 years (30 years for A/R PoAs) with no renewal option. However, the duration of a CPA crediting period may never exceed the duration of its respective PoA.

Provided they are in accordance with the PoA's criteria, CPAs can be added at any time, and not only when PoA registration is requested. Whenever this occurs, the coordinating entity will inform the Executive Board of the additions through the DOE which will validate each CPA, using a pre-determined format.

Baselines will last for seven years and will be reviewed at each renewal of the crediting period, except in the case of fixed periods and for A/R projects. CPAs will adapt to any interim changes in the PoA at the subsequent renewal of their crediting period.

The PoA registration fee will be based on the total expected anthropogenic GHG emission reductions by sources or removal by sinks of those CPAs included in the Programme on its registration. Payment procedures are identical to those outlined

in item 2.4 Project Cycle. The fee should be paid by the coordinating entity to the secretariat. Any CPAs added subsequently will be exempt.

When it sends its registration request, the PoA must define the type of information to be provided by each CPA to ensure that leakage, additionality, establishment of the baseline, baseline emissions, eligibility and double counting are defined identically.

Additionality and environmental impact analysis can be defined in the PoA or in the CPA – it is up to the project activity developer to establish where these will be assessed as long as they are consistent with the type of project being proposed. For example, the environmental impact analysis of a hydroelectric plant will normally take place within each CPA, given the necessity for individual environmental, installation and operating licenses. In the case of a Programme of Activities involving, say, the installation of more efficient lighting or the use of biofuels by flex fuel vehicles, additionality may be defined by the PoA without the necessity of confirmation at CPA level.

These are the main distinguishing features of PoAs. It should be emphasized that the basic stages explained in item 2.4 Project Cycle should also be followed by PoAs and CPAs. In other words, the cycle *per se* does not change, there are only the necessary adaptations to ensure that PoAs can be applied under the CDM while respecting the environmental integrity of the Kyoto Protocol.

Finally, it should be noted that although the act of creating infrastructure or enforcing a policy standard is not of itself eligible for inclusion in the CDM, measurable emission reductions directly attributable to such actions are eligible.

3 PROCEDURES FOR THE SUBMISSION OF CDM PROJECTS IN BRAZIL

The Interministerial Commission on Global Climate Change is Brazil's Designated National Authority. It plays a fundamental role in ensuring compliance with eligibility criteria for CDM projects implemented in Brazil.

Given the comprehensive description of the functioning of the CDM in the previous item, it is absolutely essential to know how the mechanism can be utilized in Brazil. Consequently, Appendix VI contains the Manual for Submitting CDM Project Activities, which covers all stages of this process. The Manual is updated on an ongoing basis and its most recent version is available at: http://www.mct.gov.br/index.php/content/view/37142.html.

4 BALI ACTION PLAN

COP 13, in December 2007, brought two important issues to the negotiating table: (i) the entry into force of the Kyoto Protocol's first commitment period in January 2008, together with attempts to reduce uncertainties surrounding the subsequent periods; and (ii) the findings of the IPCC Fourth Assessment Report that warming of the climate system was unequivocal and caused by man.

It therefore became a matter of urgency to begin specific discussions on the steps to be taken by the Annex I and non-Annex I Parties, while safeguarding their distinctions, in order to achieve the common and primary goal of accelerating the implementation of the Convention and, at the same time, deal with its associated global problems, especially socio-economic development and the eradication of poverty. With this in mind, a new subsidiary body was set up, the *Ad Hoc* Working Group on Long-term Cooperative Action under the Convention – AWG-LCA –, which will be dealt with in more detail in the following item 2.

From the point of view of GHGs, the IPCC Fourth Assessment Report declared that any delay in the adoption of effective measures to reduce emissions will substantially restrict opportunities of achieving lower stabilization levels and increase the risk of

more severe climate change impacts, and that deep cuts in global emissions will be needed in order to achieve the ultimate objective of the Convention.

The result of these negotiations was Decision 1/CP.13, known as the Bali Action Plan (http://www.mct.gov.br/index.php/content/view/72023.html), whose main points are listed below:

Long-term cooperative action

The first decision establishes a comprehensive negotiating process to enable the full, effective and sustained implementation of the Convention. This would be done through long-term cooperative action beginning now and lasting throughout the first Kyoto Protocol commitment period (2008-2012) and beyond, in order to reach an agreed outcome and adopt a decision at COP 15 in 2009.

This process comprises the following five major action modalities, all within the consensual and cooperative process aimed at achieving the ultimate objective of the Convention.

(a) A shared vision for long-term cooperative action, including a long-term global goal for emission reductions, to achieve the ultimate objective of the Convention, in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, and taking into account social and economic conditions and other relevant factors.

(b) Enhanced national/international action on mitigation of climate change, including, *inter alia*, consideration of:

> I. measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances;
>
> II. nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner;
>
> III. policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of

conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries;

IV. cooperative sectoral approaches and sector-specific actions, in order to enhance implementation of Article 4, paragraph 1(c), of the Convention;

V. various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries;

VI. economic and social consequences of response measures; and

VII. ways to strengthen the catalytic role of the Convention in encouraging multilateral bodies, the public and private sectors and civil society, building on synergies among activities and processes, as a means to support mitigation in a coherent and integrated manner.

(c) Enhanced action on adaptation, including, *inter alia*, consideration of:

I. international cooperation to support urgent implementation of adaptation actions, including through vulnerability assessments, prioritization of actions, financial needs assessments, capacity-building and response strategies, integration of adaptation actions into sectoral and national planning, specific projects and programmes, means to incentivize the implementation of adaptation actions, and other ways to enable climate-resilient development and reduce vulnerability of all Parties, taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, and further taking into account the needs of countries in Africa affected by drought, desertification and floods;

II. risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance;

III. disaster reduction strategies and means to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change;

IV. economic diversification to build resilience; and

V. ways to strengthen the catalytic role of the Convention in encouraging multilateral bodies, the public and private sectors and civil society, building on synergies among activities and processes, as a means to support adaptation in a coherent and integrated manner.

(d) Enhanced action on technology development and transfer to support action on mitigation and adaptation, including, *inter alia*, consideration of:

I. effective mechanisms and enhanced means for the removal of obstacles to, and provision of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties in order to promote access to affordable environmentally sound technologies;

II. ways to accelerate deployment, diffusion and transfer of affordable environmentally sound technologies;

III. cooperation on research and development of current, new and innovative technology, including win-win solutions; and

IV. the effectiveness of mechanisms and tools for technology cooperation in specific sectors.

(e) Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation, including, *inter alia*, consideration of:

I. improved access to adequate, predictable and sustainable financial resources and financial and technical support, and the provision of new and additional resources, including official and concessional funding for developing country Parties;

II. positive incentives for developing country Parties for the enhanced implementation of national mitigation strategies and adaptation action;

III. innovative means of funding to assist developing country Parties that are particularly vulnerable to the adverse impacts of climate change in meeting the cost of adaptation;

IV. means to incentivize the implementation of adaptation actions on the basis of sustainable development policies;

V. mobilization of public and private-sector funding and investment, including facilitation of climate-friendly investment choices; and

VI. financial and technical support for capacity-building in the assessment of the costs of adaptation in developing countries, in particular the most vulnerable ones, to aid in determining their financial needs.

2 *The Ad Hoc Working Group on Long-term Cooperative Action under the Convention*

The group was established to conduct the cooperative process envisaged in item 1 (Long-term cooperative action), charged with completing its work in 2009 and presenting the outcome to the Conference of the Parties for adoption at its fifteenth session (COP 15, in 2009).

The Group will be headed by a Chair and Vice-Chair, with one being an Annex I Party and the other a non-Annex I Party, alternating annually. The first Chair was exercised by Brazil, representing the non-Annex I Parties.

Administrative, functional and quality assurance issues have been excluded from this summary.

Finally, there is another ongoing working group, established during COP/MOP 1, which is the *Ad Hoc* Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), with the specific task of defining the new quantified commitments for Parties to Annex B of the Protocol for the second commitment period beginning in 2012, pursuant to paragraph 9 of Article 3 of the Protocol. AWG-KP negotiations should be concluded by the end of 2009, at COP/MOP 5.

Appendix I - List of Acronyms

LIST OF ACRONYMS

Acronym	Definition
AAU	*Assigned Amount Unit*
ACM	*Approved Consolidated Methodologies*
AM	*Approved Large Scale Methodologies*
AMS	*Approved Small Scale Methodologies*
AR	*Aforestation/Reforestation*
AR-AM	*Approved Large Scale A/R Methodologies*
AR-AMS	*Approved Small Scale A/R Methodologies*
AR WG	*Working group on aforestation and reforestation project activities*
BAU	*Business-as-usual*
CDM	*Clean Development Mechanism*
CDM-AP	*CDM Accreditation Panel*
CER	*Certified Emission Reduction*
COP	*Conference of the Parties*
COP/MOP	*Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol*
DNA	*Designated National Authority*
DOE	*Designated Operational Entity*
EB	*Executive Board*
ERU	*Emission Reduction Unit*
GHG	*Greenhouse Gases*
GWP	*Global Warming Potencial*
IET	*International Emission Trading*
IPCC	*Intergovernmental Panel on Climate Change*
JI	*Joint Implementation*
lCER	*Long-term CER*
MP	*Methodologies Panel*
NM	*New Methodology*
ODA	*Official Development Assistance*
OE	*Operational Entity*

Acronym	Definition
OECD	*Organization for Economic Co-operation and Development*
PDD	*Project Design Document*
PoA	*Programme of Activities*
PP	*Project Participants*
RIT	*Registration and Issuance Team*
RMU	*Removal Unit*
SSC WG	*Working group for small-scale CDM project activities*
tCER	*Temporary CER*
UNFCCC	*United Nations Framework Convention on Climate Change*

Appendix II - Glossary

Adaptation – A system's capacity to adjust to climate change (including climate variability and extreme weather events), mitigating possible damage, taking advantage of opportunities or dealing with the consequences.

Additional Implementation Mechanisms – They confer flexibility and help the Annex I Parties achieve their GHG reduction targets. There are three additional implementation mechanisms: Joint Implementation, defined in Article 6 of the Kyoto Protocol; the Clean Development Mechanism, defined in Article 12; and Emissions Trading, defined in Article 17.

Additionality – An essential criterion for a project activity to be eligible under the CDM, it consists of reductions in GHG emissions or increased CO_2 removals in addition to those that would have occurred in the absence of the registered activity.

Afforestation – 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.

Annex B – This Annex to the Kyoto Protocol lists the targets for GHG emission reductions, which are exclusive to the Parties listed in Annex I of the Convention. There are now 39 Parties to Annex B, which are the same as the 41 listed in Annex I of the Convention, with the exception of Turkey and Belarus.

Annex I Parties – Annex I of the UNFCCC comprises those signatories to the UNFCCC that belonged to the OECD in 1990, plus the former Soviet Union and the

industrialized Eastern European countries. There are 41 Parties listed in Annex I at the moment.

Approval by the Designated National Authority – For the purposes of this Guide, approval is the process whereby the Designated National Authorities of the Parties involved confirm voluntary participation and the DNA of the host Party attests that the activity in question contributes to its sustainable development.

Assigned Amount – AA – The Assigned Amount defines the limit of emissions of the Annex I Parties in the period of 2008-2012 (Dec.3 / CMP 3)

Assigned Amount Unit – AAU – The amount attributed to each Annex I Party is based on its 1990 anthropogenic GHG emissions (or in a different year or base period for the economies in transition) multiplied by 5, with the application of a percentage established in Annex B of the Protocol.

Banking – The transfer of CERs, AAUs and ERUs from the first to the second commitment period.

Baseline – The baseline for a CDM project activity is the scenario that reasonably represents those anthropogenic GHG emissions by sources that would occur in the absence of the proposed project activity. A baseline should cover emissions from all gases, sectors and source categories listed in Annex A of the Kyoto Protocol. It serves as the basis for verifying the additionality of CDM project activities and quantifying their CERs. CERs are calculated by the difference between baseline emissions and the emissions verified as a result of the project activities, including leakage. The baseline is qualified and quantified based on a business-as-usual scenario.

CDM Registry – Established and supervised by the CDM Executive Board to ensure the accurate accounting of the issuance, holding, transfer and acquisition of CERs. The CDM Registry is an electronic database containing common data elements related to the issuance, holding and transfer of CERs. Not to be confused with the registration of a CDM project activity, which is one of the stages of the project cycle.

Certified Emission Reductions – CERs – CERs represent GHG emission reductions resulting from the activities of projects eligible under the CDM which have undergone the entire CDM project cycle (validation/registration, monitoring and verification/certification), culminating in the *ex-post* issuance of CERs. CERs are expressed in metric tons of carbon dioxide equivalent, with each unit being equal to one metric ton of carbon dioxide equivalent, calculated by GWP. They can be used by Annex I Parties to partially comply with their GHG emission reduction targets.

Climate system – The atmosphere, hydrosphere, biosphere and geosphere and their interactions.

Carbon pools – Above-ground biomass, belowground biomass, litter, dead wood and soil organic carbon. Project participants may choose not to account for one or more carbon pools if they provide transparent and verifiable information indicating that the choice will not increase expected net anthropogenic GHG removals by sinks.

Carbon stocks – Above-ground biomass, belowground biomass, litter, dead wood and soil organic carbon.

CDM Executive Board – The CDM's operational supervisory body. Its responsibilities include the accreditation of DOEs; the validation and registration of CDM project activities; the issuance of CERs; the development and operation of the CDM Registry and the establishment and improvement of baseline, monitoring and leakage methodologies. Decisions of the CDM Executive Board are confirmed by the COP/MOP.

Clean Development Mechanism – CDM – One of the three additional mechanisms for the implementation of the Kyoto Protocol. The CDM was defined in Article 12 of the Kyoto Protocol and formalized by the Marrakesh Accords. It regulates the activities of projects implemented in non-Annex I Parties for reducing GHG emissions or increasing CO_2 removal with a view to generating CERs.

CPA – A single measure, or set of interrelated measures, to reduce anthropogenic GHG emissions (or result in their removal of CO_2) within a Programme of Activities.

Certification – Part of the fifth stage of the project cycle (verification/certification), certification is a formal guarantee granted by a DOE that a certain project activity has reached a given level of GHG emission reductions or increased CO_2 removals within a specified time period.

Conference of the Parties – COP – The supreme body of the UNFCCC, comprising all its signatories, which is responsible for its implementation. The COP meets annually.

Conference of the Parties Serving as the Meeting of the Parties – COP/MOP – The supreme body of the Kyoto Protocol, which only came into existence when the Protocol entered into force.

Crediting Period – The period in which GHG emission reductions resulting from CDM project activities can generate CERs after the registration of the project activity by the CDM Executive Board.

Designated National Authority – DNA – The government of the countries participating in a CDM project activity appoints a National Authority for the CDM to the UNFCCC. The Designated National Authority (DNA) attests that the country is participating on

a voluntary basis and, in the case of the host country, that the activity contributes to the latter's sustainable development.

Designated Operational Entity – DOE – An entity accredited by the CDM Executive Board to: (i) validate proposed CDM project activities; and (ii) verify and certify reductions in GHG emissions and/or increased CO_2 removals. After being accredited by the Board, the DOE must also be designated by COP/MOP, which may or may not ratify the Board's recommendation. In Brazil, the DOE must be legally constituted and operate within the country.

Emissions Trading – ET – Emissions Trading, as established in Article 17 of the Kyoto Protocol, allows countries that have attributed but unused emission units to sell the excess to countries whose emissions exceed their targets. Given that carbon dioxide is the main greenhouse gas, this is known as carbon trading and the market is known as the carbon market, in which carbon is bought and sold like any other commodity.

Emission Reduction Unit – ERU – Is the unit to express the emission reductions of the projects dealt by the Article 6 of the Kyoto Protocol, Joint Implementation. It is expressed in metric tons of carbon dioxide equivalent.

Emissions – The release of GHGs and/or their precursors into the atmosphere in a specific area and time frame.

First commitment period – The first commitment period of the Kyoto Protocol is now in force and refers to the period between 2008 and 2012.

Forest – A minimum area of land of 0.05-1.0 hectare with tree crown cover (or equivalent stocking level) of more than 10-30% (30% in Brazil) with trees with the potential to reach a minimum height of 2-5 meters at maturity in situ. In Brazil, the CIMGC, in its Resolution no. 2, determined that these respective amounts are: 1.0 hectare; 30%; and 5 meters.

Global Warming Potential – GWP – An index estimated by the scientific literature and reported by the IPCC in its periodic assessments used to standardize the amounts of the various GHGs in terms of carbon dioxide equivalent, so that a total GHG reduction figure can be arrived at. The GWP which must be used in the first commitment period (2008-2012) is that published in the IPCC Second Assessment Report.

Greenhouse Gases – GHGs – For the purpose of this Guide, GHGs refer to the gases listed in Annex A of the Kyoto Protocol, namely: (i) carbon dioxide (CO_2); (ii) methane (CH_4); (iii) nitrous oxide (N_2O); (iv) sulphur hexafluoride (SF_6); (v) hydrofluorocarbons (HFCs); and (vi) perfluorocarbons (PFCs), whose reduction

can generate CERs, AAUs, ERUs under the scope of the Kyoto Protocol and, in the case of CO_2, whose removal can generate RMUs, tCERs or lCERs.

Host countries – Non-Annex I Parties where CDM project activities are implemented.

Impacts – The effects of global climate change on natural and human systems. They can be divided into two categories: potential impacts (all the impacts that may occur from projected climate change without considering adaptation) and residual impacts (the impacts of global climate change that may occur after adaptation).

Intergovernmental Panel on Climate Change – IPCC – A United Nations panel comprising scientists from several countries and disciplines which assesses the scientific literature on global climate change and interacts with the UNFCCC. It is responsible for publishing Assessment Reports (four so far) and the GWP estimates, as well as conducting a methodological review of these estimates.

Interministerial Commission on Global Climate Change – Brazil's Designated National Authority established by Presidential Decree on July 7, 1999. It evaluates and approves the projects considered eligible under the CDM and can also define other eligibility criteria in addition to those listed in the Kyoto Protocol regulations.

Issuance of CERs – The final stage of the Project Cycle when the Executive Board is satisfied that, all the stages having been successfully completed, the reduction of GHG emissions resulting from the project activities is real, measurable and long-term, has been monitored and verified and, therefore, can originate CERs.

Joint Implementation – JI – Applies exclusively to Annex I Parties. It is a mechanism based on projects, generates ERUs and is defined in the Article 6 of the Kyoto Protocol.

Kyoto Protocol – An international legal instrument supplementing the UNFCCC. The main innovations established by the Protocol include quantified GHG emission limitations or reductions, defined in its Annex B, as well as additional implementation mechanisms, including the CDM.

Leakage – The net change in anthropogenic GHG emissions by sources which occurs outside the project boundary, and which is measurable and attributable to the CDM project activity. It has to be deducted from the reductions attributed to the CDM project activity. Thus, all the possible negative effects in terms of a project activity's GHG emissions are accounted for.

Marrakesh Accords – Established during COP 7 in Morocco, they represent the decisions related to the regulation of the Kyoto Protocol, including those related to the additional implementation and, consequently, the CDM.

Mitigation – Anthropogenic intervention to reduce the GHG emissions by sources or increase their removals of CO_2.

Monitoring – The fourth stage of the Project Cycle. It refers to the collection and archiving of all relevant data necessary for measuring GHG emission reductions or increased CO_2 removal, in accordance with the project activity baseline and monitoring methodology. The monitoring plan is part of the PDD and the monitoring process is carried out by the project participants and verified by the DOE.

Monitoring Plan – Although monitoring constitutes the fourth stage of the project cycle, the Monitoring Plan, which defines the methodology for the process, should be defined in the first stage since it is an integral part of the PDD.

Negative effects of climate change – Changes in the physical environment or *biota* (animal and plant life) resulting from climate change that have significant effects on the composition, resilience or productivity of natural and administrative ecosystems as well as the functioning of socio-economic systems and human health and well-being.

Non-Annex I Parties – All the signatories to the UNFCCC that are not listed in Annex I, including Brazil.

Parties – Individual countries or economic blocs, such as the European Economic Community.

Programme of Activities – PoA – A Programme of Activities unites an unlimited number of activities (CPAs) with the same characteristics in a single programme. In other words, it functions as an umbrella encompassing several similar CPAs.

Project Activities – Activities comprising a candidate project under the CDM leading to a reduction in GHG emissions or increased CO_2 removal.

Project Boundary – The project boundary encompasses all GHG emissions under the control of the CDM project participants that are significant and reasonably attributable to the project activity. These emissions should be accounted in the baseline. The definition of the project boundary is part of the PDD. Significant emissions reasonably attributable to the project activity, but which are outside the project boundary, are classified as leakage.

Project Cycle – The stages through which any CDM activity must pass in order to generate CERs, the last phase of the Project Cycle.

Project Design Document – PDD – The drafting of the PDD is the first stage of the Project Cycle. All the necessary information for the subsequent stages should be included in the PDD.

Project Participants – A Party involved in a CDM project activity. Project participants may be Annex I Parties or non-Annex I Parties, provided that they have ratified the Kyoto Protocol, and/or public and private entities of these Parties, provided they are duly authorized.

Reforestation – The direct human-induced conversion of non-forested land to forested land through planting, seeding and/or the human-induced promotion of natural seed sources, on land that was previously forested but is now non-forested. In the first commitment period, CDM activities are limited to reforestation on land that did not contain forest on December 31, 1989.

Registration – The third stage of the Project Cycle, registration is the formal acceptance, by the Executive Board, of a project validated as a CDM project activity and is a prerequisite for the verification, certification and issuance of CERs related to that project activity. Not to be confused with the CDM Registry.

Removal Unit – RMU – Is the unit to express the CO_2 net removals by sinks on the Annex I Parties, in relation to Article 3, paragraphs 3 and 4 of the Kyoto Protocol. It is expressed in metric tons of carbon dioxide equivalent, and one unit is equivalent to one ton of GHG.

Reservoir – A component of the climate system which stores greenhouse gases or greenhouse gas precursors.

Sinks – Any processes, activities or mechanisms, including biomass and, especially, forests and oceans, that can remove aerosols, greenhouse gases or greenhouse gas precursors from the atmosphere. They can comprise other terrestrial, coastal and marine ecosystems.

Small-scale Project Activities – Small-scale project activities that have a more streamlined project cycle and lower transaction costs.

Source – Any process or activity that releases GHGs, aerosols or GHG precursors into the atmosphere.

Stakeholders – The public, including those individuals, groups and communities that are affected or may be affected by CDM project activities.

Starting date of a CDM project activity – The first date on which implementation, construction or any real action related to the project activity begins, or rather, the first date on which the project participant incurs expenses related to the

implementation or construction of the project activity – e.g. the date on which equipment purchase agreements are signed.

Transaction Costs – In the specific case of the CDM, the costs related to the project cycle and the trading of CERs.

United Nations Framework Convention on Climate Change – UNFCCC – A Convention, negotiated under the United Nations and adopted during Rio-92, whose ultimate objective is to stabilize the concentration of GHGs in the atmosphere at a level that prevents dangerous anthropogenic interference in the global climate system. The Kyoto Protocol is a complementary legal instrument linked to the UNFCCC.

Validation – Part of the second stage of the project cycle (validation/approval), validation is the independent evaluation of a project activity by a DOE against the requirements of the CDM, based on the PDD.

Verification – Part of the fifth stage of the project cycle (verification/certification), verification is a periodic independent audit by a DOE to review calculations of the effective GHG emission reductions as attested in the PDD, and according to the Monitoring Plan. Only validated and registered CDM project activities can have emission reductions or removals by sinks verified and certified.

Vulnerability – The degree of susceptibility or incapacity of a system to deal with the adverse effects of climate change, including climate variability and extreme weather events. Vulnerability depends on the character, magnitude and pace of climate change, the variation to which a system is exposed, its sensitivity and its adaptation capacity.

Appendix III - Model for Determining Carbon Dioxide Equivalent Emissions

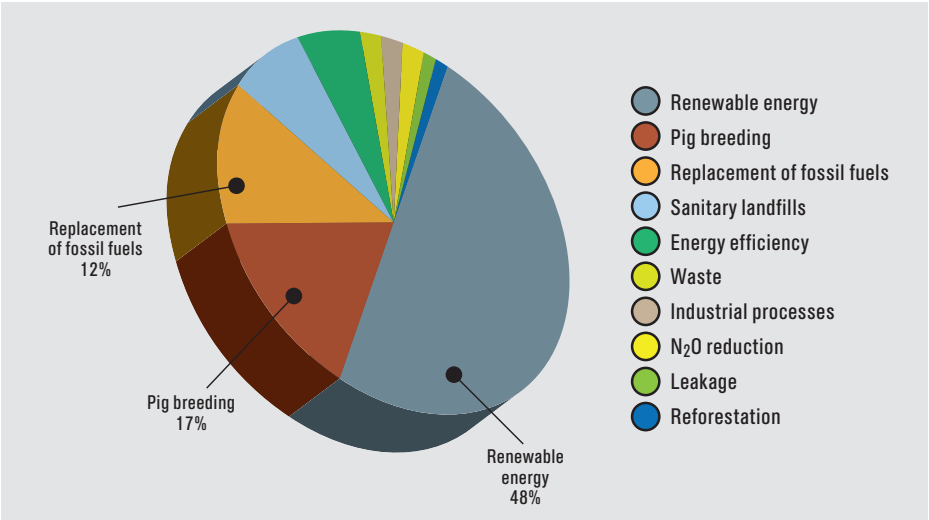
GHG	Baseline Emissions (t)		CDM Project Emissions (t)		Net Reduction		GWP*		CO_2 Equivalent (t)
CO_2		–		=		x	1	=	
CH_4		–		=		x	21	=	
N_2O		–		=		x	310	=	
HFC-23		–		=		x	11,700	=	
HFC-125		–		=		x	2,800	=	
HFC-134a		–		=		x	1,300	=	
HFC-152a		–		=		x	140	=	
CF_4		–		=		x	6,500	=	
C_2F_6		–		=		x	9,200	=	
SF_6		–		=		x	23,900	=	
Sub-totals		–		=				=	

* GWP relative to CO_2, expressed in terms of mass for a 100-year period, as defined in the IPCC Second Assessment Report.

Appendix IV - Sectoral Scopes

Sectoral scopes are available at: http://cdm.unfccc.int/DOE/scopes.html. In addition, the table below gives a complete breakdown of each scope and their project activities in Brazil.

Projects under Validation/ Approval	Number of projects	Annual emission reductions (tCO_2e)	Emission reductions in the 1st crediting period (tCO_2e)	Number of projects (%)	Annual emission reductions (%)	Emission reductions in the 1st crediting period (%)
Renewable energy	163	16,971,045	119,565,353	48%	39%	36%
Pig breeding	58	2,854,044	26,834,620	17%	7%	8%
Sanitary landfills	30	10,156,054	75,048,699	9%	24%	23%
Industrial processes	7	832,946	6,131,592	2%	2%	2%
Energy efficiency	21	1,490,288	14,535,192	6%	3%	4%
Waste	13	1,270,537	10,255,823	4%	3%	3%
N_2O reduction	5	6,373,896	44,617,272	1%	15%	14%
Replacement of fossil fuels	40	2,944,658	24,541,512	12%	7%	7%
Leakage	1	34,685	242,795	0%	0%	0%
Reforestation	1	262,352	7,870,560	0%	1%	2%



Appendix V - Parties to the UNFCCC (Annex I and Non-Annex I)

ANNEX I

Australia
Austria
Belarus
Belgium
Bulgaria
Canada
Croatia
Czech Republic
Denmark
European Economic Community
Estonia
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Japan
Latvia
Liechtenstein
Lithuania
Luxembourg
Monaco
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Russian Federation
Slovakia
Slovenia
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom of Great Britain and Northern Ireland
United States of America

NON-ANNEX I

Afghanistan
Albania
Angola
Antigua and Barbuda
Argentina
Armenia
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belize
Benin
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana
Brazil
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Republic
Chad
Chile
China
Colombia
Comoros
Congo
Cook Islands
Costa Rica
Cuba
Cyprus
Côte d'Ivoire
Democratic People's Republic of Korea
Democratic Republic of the Congo
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Ethiopia

Fiji
The former Yugoslav Republic of Macedonia
Gabon
Gambia
Georgia
Ghana
Grenada
Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
India
Indonesia
Iran (Islamic Republic of)
Israel
Jamaica
Jordan
Kazakhstan
Kenya
Kiribati
Kuwait
Kyrgyzstan
Lao People's Democratic Republic
Lebanon
Lesotho
Liberia
Libyan Arab Jamahiriya
Madagascar
Malawi
Malaysia
Maldives
Mali
Malta
Marshall Islands
Mauritania
Mauritius
Mexico
Micronesia (Federated States of)
Mongolia
Montenegro
Morocco
Mozambique
Myanmar
Namibia
Nauru
Nepal
Nicaragua
Niger
Nigeria
Niue
Oman
Pakistan
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Qatar
Republic of Korea
Republic of Moldova
Rwanda
Saint Kitts and Nevis
Saint Lucia
Saint Vincent and the Grenadines
Samoa
Sao Tome and Principe
Saudi Arabia
Senegal
Serbia
Seychelles
Sierra Leone
Singapore
Solomon Islands
South Africa
Sri Lanka
Sudan
Suriname
Swaziland
Syrian Arab Republic
Tajikistan
Thailand
Timor-Leste
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkmenistan
Tuvalu
Uganda
United Arab Emirates
United Republic of Tanzania
Uruguay
Uzbekistan
Vanuatu
Venezuela (Bolivarian Republic of)
Viet Nam
Yemen
Zambia
Zimbabwe

Ministry of Science and Technology – Official Document of the Ratification of the Status of the Kyoto Protocol – August 22, 2007

Appendix VI - Manual for Submitting CDM Project Activities in Brazil

Manual for Submitting CDM Project Activities to the Interministerial Commission on Global Climate Change, aimed at obtaining the Letter of Approval from the Brazilian Government

1 Introduction

The purpose of this Manual is to facilitate the submission of CDM projects in Brazil, uniting, in a single document, the norms issued by the Interministerial Commission on Global Climate Change through its Resolutions[47].

The Interministerial Commission on Global Climate Change – CIMGC –, referred to herein as the Interministerial Commission, is Brazil's Designated National Authority (DNA), the focal point for the Kyoto Protocol's Clean Development Mechanism (CDM).

[47] Updated with the following Resolutions from the Interministerial Commission on Global Climate Change:

Resolution no. 1 of September 11, 2003, http://www.mct.gov.br/upd_blob/0002/2736.pdf;

Resolution no. 2 of August 10, 2005, http://www.mct.gov.br/upd_blob/0002/2735.pdf;

Resolution no. 3 of March 24, 2006, http://www.mct.gov.br/upd_blob/0006/6701.pdf;

Resolution no. 4 of December 6, 2006, http://www.mct.gov.br/upd_blob/0011/11780.pdf;

Resolution no. 5 of April 11, 2007, http://www.mct.gov.br/upd_blob/0014/14725.pdf;

Resolution no. 6 of June 6, 2007, http://www.mct.gov.br/upd_blob/0015/15788.pdf;

Resolution no. 7 of March 4, 2008, http://www.mct.gov.br/upd_blob/0023/23744.pdf;

Resolution no. 8, of May 26, 2008, http://www.mct.gov.br/upd_blob/0024/24719.pdf.

According to the Marrakesh Accords, which established the framework for the CDM, the DNA must attest to the voluntary participation of CDM project activity participants and to the fact that the project activity contributes to the sustainable development of the host country. It must also issue a letter of approval for national participants in CDM project activities and inform the CDM secretariat of Brazil's parameters for defining forests under the CDM[48].

In addition to facilitating the application of these norms, the procedures contained in this Manual also aim to speed up the analysis of CDM project activities by the Interministerial Commission and reduce the total time needed for project approval.

In addition, the Interministerial Commission respects vested rights and legal acts in accordance with the applicable legislation. In this context, the Commission applies the norms contained in its Resolutions non-retroactively and retains the capacity to annul or revoke Letters of Approval if CDM project activities approved by it infringe the law or the public interest.

In this context, the Commission's Resolutions apply only to CDM project activities whose validation has begun after the respective Resolution has taken effect (normally coinciding with the date on which the Resolution is published in the Diário Oficial da União).

For this effect, the Interministerial Commission considers that the validation of a CDM project activity effectively begins on the date on which the Project Design Document is published on the following CDM site: http://cdm.unfccc.int/Projects/Validation/index.html.

Thus, if the validation of any project activity begins after the publication of a given Interministerial Commission Resolution in the Diário Oficial da União, the project activity in question will be subject to the norms contained in said Resolution, in order to ensure the legal security of CDM project activities taking place in Brazil.

2 Procedures

In order to obtain approval for project activities under the CDM, domestic proponents should send the following documents to the Executive Secretariat of the

[48] Information also available at: http://cdm.unfccc.int/DNA/ARDNA.html?CID=30

Interministerial Commission (see address in item 9 of this Manual), in both printed and electronic versions with identical content[49]:

- Project Design Document (in English and Portuguese);
- Annex III;
- Letters of invitation to comment;
- Validation Report (in English and in Portuguese);
- Declaration concerning the person responsible for communications and contact information;
- Declaration of compliance with environmental legislation;
- Declaration of compliance with labor legislation; and
- Declaration concerning the situation of the Designated Operational Entity – DOE.

Any documentation sent to the Executive Secretariat of the Interministerial Commission at the address shown in this Manual must be accompanied by a covering letter to the Executive Secretary listing the attached documents.

Once the initial project documentation has been delivered, it will be examined by the Executive Secretariat of the Interministerial Commission to ensure that it is complete. A project will only be deemed to have been submitted at the first ordinary meeting of the Interministerial Commission subsequent to the documentation protocol, provided all the documents are delivered at least five working days prior to the date of the meeting[50]. The day following the day on which the project is deemed to have been submitted, its documentation (PDD, Validation Report and Annex III) will be published on the Ministry of Science and Technology's website (www.mct.gov.br/clima), marking the beginning of a 60-day period[51] during which the Interministerial Commission will approve the project, approve it with reservations or place it under review.

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[49] Article 3, Resolution no. 1, Articles 1, 2, 3, 5 and Annex to Resolution no. 7.

[50] Article 2, Resolution no. 5.

[51] Article 2, Resolution no. 5.

3 Information on necessary documents

PDD (Project Design Document)

The Project Design Document must be sent in the form and version determined by the Executive Board of the Clean Development Mechanism (CDM), established under the Kyoto Protocol to the United Nations Framework Convention on Climate Change.

The PDD must be presented in the most up-to-date version of its form, which must also be the same version sent to the Designated Operational Entity for validation and to the CDM Executive Board together with the registration request. Other versions will not be accepted.

There are different forms according to the project type: emission reduction projects (large-scale and small-scale) and afforestation and reforestation projects (large-scale and small-scale).

In the case of any CDM project activity connected to the Sistema Interligado Nacional – SIN – that supplies or uses energy from the grid and which applies the ACM0002 or AMS-I.D, methodologies and/or the "Tool to calculate the emission factor for an electricity system", approved by the CDM Executive Board, the "Project Electricity System" should be defined as the unique system comprising the union of the SIN sub-markets[52].

Large-scale emission reduction projects: This form is currently in version 3.1 and is available at:

http://cdm.unfccc.int/Reference/Documents/cdmpdd/English/CDM_PDD.pdf.

The guide for filling out the PDD form (Guidelines for Completing the Project Design Document - CDM-PDD) can also be found on the UNFCCC website, at:

http://cdm.unfccc.int/Reference/Documents/Guidel_Pdd_most_recent/English/Guidelines_CDMPDD_NM.pdf.

[52] Resolution no. 8.

Small-scale emission reduction projects: Small-scale projects (SSC) use a simplified version of the form, which is currently in version 3.

The SSC-PDD form and the guidelines for filling it out are found at:

http://cdm.unfccc.int/Reference/Documents/SSC_PDD/English/SSCPDD_en.pdf;

http://cdm.unfccc.int/Reference/Guidclarif/PDD_Guid05_F_CDM_SSC_PDD-NM.pdf.

Large-scale afforestation and reforestation projects: This form is currently in version 4 and is available at:

http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/PDD_AR_form03_v04.pdf.

The guide for filling out the PDD form (Guidelines for Completing the Project Design Document for A/R - CDM-AR-PDD) can also be found on the UNFCCC site at:

http://cdm.unfccc.int/Reference/Guidclarif/PDD_AR_guid03_v08.pdf.

Small-scale afforestation and reforestation projects: Small-scale afforestation and reforestation projects must use a simplified version of the form, which is currently in version 2. The SSC-AR-PDD form and the guidelines for filling it out can be found at:

http://cdm.unfccc.int/Reference/PDDs_Forms/PDDs/PDD_SSCAR_form01_v02.doc;

http://cdm.unfccc.int/Reference/Guidclarif/PDD_SSCAR_guid01_v04.pdf.

There are two forms for large-scale Programmes of Activities (PoA), one for the PoA itself and the other for the CPAs (CDM Programme Activities). There are also two forms for small-scale activities that follow the same structure.

All of the forms and the guidelines for filling them out can be found at:

http://cdm.unfccc.int/Reference/PDDs_Forms/PoA/index.html;

http://www.mct.gov.br/index.php/content/view/61154.html.

DCP (Documento de Concepção do Projeto - Project Design Document in Portuguese)

The DCP is the translated version of the PDD described before. It is the legally valid version in Brazil and, therefore, the version that will be analyzed by the Interministerial Commission. Thus, special attention should be given to ensuring that the translation is faithful to the English version and that project proponents use the official Portuguese nomenclature for the institutions and terms created under the Kyoto Protocol. These can be found in the documents available on the Ministry of Science and Technology's website: http://www.mct.gov.br/clima.

The official translation of the updated DCP form for large-scale emission reduction projects is presented in Annex I of Resolution no. 6. Decision 17/CP.7, which originally regulated this type of project and which was endorsed by Decision 3/CMP.1 of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol, is translated in Annex I of Resolution no. 1.

The official translation of the DCP form for small-scale emission reduction projects is presented in Annex II of Resolution no. 3. The version shown in Portuguese serves as a basis for the translation since the DCP must always be presented in the latest version adopted by the CDM Executive Board, but there may be a gap between the English and Portuguese versions as a result of the time needed for translation and publication on the site.

The official translation of the DCP form for large-scale afforestation and reforestation projects is presented in Annex IV of Resolution no. 2. The version shown in Portuguese serves as a basis for the translation since the DCP must always be presented in the latest version adopted by the CDM Executive Board. Decision 19/CP.9, which originally regulated this type of project and which was endorsed by Decision 5/CMP.1 of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol, is translated in Annex II of Resolution no. 2.

The official translation of the DCP form for small-scale afforestation and reforestation projects is presented in Annex III of Resolution no. 2. The version shown in Portuguese serves as a basis for the translation since the DCP must always be presented in the latest version adopted by the CDM Executive Board. Decision 14/CP.10, which originally regulated this type of project and which was endorsed by Decision 6/CMP.1 of the Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol, is translated in Annex III of Resolution no. 2.

Annex III (Contributions to Sustainable Development)

The project's contributions to sustainable development must be described in a separate document, commonly called "Annex III", since it is defined in Annex III of Resolution no. 1. This information will guide the discretionary decision by the Interministerial Commission to approve the proposed project activity (if such be the case), taking into consideration the criteria mentioned below.

Annex III should emphasize project activity contributions to each of the following five aspects: local environmental sustainability; development of working conditions and net job creation; income distribution; training and technological development; and regional integration and articulation with other sectors. It is important to focus on contributions that can truly be attributed to the implementation of the project activity, clearly separating these from other possible benefits generated by project proponent company activities. It is worth noting that reductions in greenhouse gas emissions do not, in themselves, constitute a contribution to local environmental sustainability; their effect is global.

The information in Annex III must be consistent with that in the other documents (PDD or Validation Report) and should be presented in a clear and objective manner, given that the analysis of the project activity's contribution to sustainable development will be based on this information. A project does not have to contribute to all five parameters, since the type of contribution varies with the scope of each project activity.

If the Interministerial Commission believes that the proposed CDM project activity does contribute to Brazil's sustainable development, it will issue a Letter of Approval. If not, the activity can be placed under review or it may be approved with reservations (dealt with in more detail subsequently).

Letters of Invitation

Copies of the letters of invitation to comment that were sent to the project stakeholders must be included[53].

[53] Article 3, Resolution no. 7.

If the project activities take place in one or several municipalities within the geographical boundaries of a single state (or the Federal District), letters of invitation to comment should be sent to (at least) the following stakeholders:

- The government of each municipality involved[54] ;
- The legislature of each municipality involved;
- The State environmental body;
- The environmental body of each municipality involved;
- The Brazilian Forum of NGOs and Social Movements for Sustainable Development and the Environment – FBOMS (http://www.fboms.org.br), currently at the following address:

  SCS – Quadra 08 – Bloco B-50 – Edificio Venancio 2000 – Sala 105
  CEP 70333-900 – Brasilia-DF

- Community associations whose purposes are directly or indirectly related to the project activity;
- The Justice Department of the state involved, or, if applicable, of the Federal District and Territories; and
- The Federal Justice Department.

If project activities involve more than one state and are submitted to the Interministerial Commission in a single Project Design Document due to bundling, letters of invitation for each project activity included in the bundle must be sent to (at least) the same stakeholders described above, considering the geographical boundary of each municipality and state involved.

If a project activity extends beyond the boundaries of more than one state or the Federal District, but is not submitted to the Interministerial Commission in a single PDD due to bundling, the letters of invitation should be sent to (at least) the following stakeholders:

[54] In the case of the Federal District, respecting the cumulative competence established in the Federal Constitution.

- The government of each state involved, or of the Federal District;
- The legislature of each state involved, or of the Federal District;
- The federal environmental body;
- The environmental body of each state involved;
- The Brazilian Forum of NGOs and Social Movements for Sustainable Development and the Environment – FBOMS (http://www.fboms.org.br), currently at the following address:

  SCS – Quadra 08 – Bloco B-50 – Edificio Venancio 2000 – Sala 105
  CEP 70333-900 – Brasilia-DF

- National entities whose purposes are directly or indirectly related to the project activity;
- The Justice Department of each state involved or, if applicable, of the Federal District and Territories; and
- The Federal Justice Department.

In all of the above-mentioned cases, the letters of invitation must be clearly addressed to each stakeholder and sent by mail, with return receipt, or delivered in person, at least 15 days before the validation process begins so that any comments received can be incorporated into the Validation Report to be submitted to the Executive Secretariat of the Interministerial Commission.

The beginning of the validation process is the day on which the Project Design Document is first made available for international stakeholder consultation on the CDM website at: http://cdm.unfccc.int/Projects/Validation/index.html.

Copies of the letters of invitation sent to the Interministerial Commission must be accompanied by proof of receipt by the addressees. If any of the stakeholders do not exist, a letter must be attached justifying the absence of the corresponding letter of invitation.

The letters of invitation must contain[55]:

[55] Article 3, clause 5, Resolution no. 7.

I - the name and type of project activity, as presented in the PDD;

II - the electronic address of the website where copies can be obtained of the latest available Portuguese version of the PDD in question, as well as a description of the project activity's contribution to sustainable development, as per Annex III of Resolution no. 1. This page must remain accessible at least until the conclusion of the project activity registration process by the CDM Executive Board; and

III - an address where stakeholders who do not have access to the Internet can request, in writing, and in a timely manner, a printed copy of the above-mentioned documentation from the project proponent.

Validation Report

The Validation Report for the project activity prepared by the Designated Operational Entity, in the form to be submitted to the CDM Executive Board for registration, in English, must also be submitted to the Interministerial Commission[56].

The report must make clear and unequivocal reference to the PDD version that is being analyzed, as well as the adopted methodology, which must have been approved and published by the CDM Executive Board.

The Validation Report cannot contain any reservations or pending corrective actions. The fact that the Letter of Approval is only issued by the Brazilian Government after validation should not constitute a pending issue and should be clarified in the Validation Report as follows: "Prior to the submission of the Project Design Document and the Validation Report to the CDM Executive Board, the project will have to receive the written approval of voluntary participation from the DNA of Brazil, including the confirmation that the Project assists the country in achieving sustainable development."

Relatório de Validação (Validation Report in Portuguese)

The document to be presented is the Portuguese translation of the Validation Report prepared by the Designated Operational Entity that will be forwarded to the CDM Executive Board together with the request for project registration, as referred to in the above item. Thus, special attention should be given to ensuring that the

[56] Article 3, clause 3, Resolution no. 1.

translation is faithful to the English version and that project proponents use the official Portuguese nomenclature for the institutions and terms created under the Kyoto Protocol. These can be found in the documents available on the Ministry of Science and Technology's website: www.mct.gov.br/clima.

Declarations of Project Participants

Originals of the following declarations must be presented:

Person responsible for communications with the Executive Secretariat

This is a single declaration signed by all national project participants[57] or separate declarations with the same content, stipulating the person responsible for communicating with the Executive Secretariat of the Interministerial Commission[58] and their respective contact information, which must be in accordance with the following model[59]:

DECLARATION

(The project participant), in compliance with clause IV, Article 3, Resolution no. 1, of the Interministerial Commission on Global Climate Change, hereby declares that:

The person responsible for communications with the Executive Secretariat of the Interministerial Commission on Global Climate Change for (name and location of the project), is (company name and corporate taxpayer's ID - CNPJ), represented by (name, nationality, marital status, profession), who can be contacted at (address, phones, fax, e-mail).

Date:

Signature of the legal representative for each national participant in the project activity.

[57] Article 4, Resolution no. 4.

[58] Article 5, Resolution no. 7 and Article 4, Resolution no. 3, with text given by Article 6, Resolution no. 7.

[59] Annex to Resolution no. 7.

Each participant who signs this declaration must include documents attesting to their legitimacy for such[60].

Compliance with environmental legislation

This is a declaration signed by all national project participants that the proposed CDM project activity is in compliance with Brazilian environmental legislation[61], accompanied by documents attesting to said compliance up to the moment the documents are submitted. The declaration must take the following form[62]:

DECLARATION OF COMPLIANCE WITH ENVIRONMENTAL LEGISLATION

(Company Responsible for the Project), in compliance with Article 3, V, Resolution no. 1, of the Interministerial Commission on Global Climate Change, hereby declares that:

1) It is aware of the environmental legislation in force and pertinent to the (project name and location) covering the diverse phases of (study, implementation, operation, decommissioning).

2) Copies of the environmental licenses and documents attesting to compliance with the environmental legislation up to the present moment are attached to this declaration.

Date:

Signature of the legal representative for each national participant in the project activity.

Each participant who signs this declaration must include documents attesting to their legitimacy for such [63].

60 Article 6, Resolution no. 7.

61 Article 3, Clause V, Resolution no. 1; Article 5, Resolution no. 3, and Article 4, Resolution no. 4.

62 Annex IV to Resolution no. 3.

63 Article 5, Resolution no. 3.

Conformity with labor legislation

This is a declaration signed by all national project participants that the proposed CDM project activity is in compliance with Brazilian labor legislation[64]. It should be in accordance with the following model[65]:

DECLARATION OF COMPLIANCE WITH LABOR LEGISLATION

(Company Responsible for the Project), in compliance with Article 3, V, Resolution no. 1, of the Interministerial Commission on Global Climate Change, hereby declares that:

1) It is aware of the labor legislation in force and pertinent to the (project name and location) and is in compliance with said legislation.

Date:

Signature of the legal representative for each national participant in the project activity.

Each participant who signs this declaration must include documents attesting to their legitimacy for such[66].

Situation of the Designated Operational Entity – DOE

The Designated Operational Entity responsible for the Validation Report must deliver a declaration, on headed notepaper, that it is duly accredited with the CDM Executive Board under the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and that it is fully established in the national territory and capable of ensuring compliance with the requirements of Brazilian legislation[67]. It is also advisable to include documentation attesting to the signatory's right to sign on behalf of the Designated Operational Entity. The following model may be used:

64 Annex IV to Resolution no. 3.

65 Article 5, Resolution no. 3.

66 Article 5, Resolution no. 3.

67 Article 4, Resolution no. 1.

DECLARATION OF THE DESIGNATED OPERATIONAL ENTITY

(The Designated Operational Entity), in compliance with Article 4, Resolution no. 1, of the Interministerial Commission on Global Climate Change, hereby declares that:

1) It was accredited with the Executive Board of the Clean Development Mechanism on (date) and this accreditation is in force on the current date for the following specific scopes:

2) It has been fully established in Brazil since (date) at (address and phone).

3) It is capable of ensuring compliance with the requirements of Brazilian legislation.

Date:

Signature of the person responsible for the Designated Operational Entity.

Complementary Documents

The inclusion of complementary documents that demonstrate the contributions of the project to sustainable development cited in Annex III is recommended. Any other document project participants wish to include to ensure a better understanding of the above items may also be included.

4 Procedures for approved project activities

If a project activity is approved, the Letter of Approval will be issued immediately after the Interministerial Commission meeting that decided on its approval and sent by the Minister of Science and Technology, as soon as possible, to the national CDM project participants.

5 Procedures for project activities approved with reservations

If a project activity is approved with reservations, the Executive Secretariat of the Interministerial Commission will forward an official letter to the person responsible for communications, indicating the reservations that must be eliminated for the Letter of Approval to be issued. The national proponents of the project activity must

satisfy these reservations within 60 days of receiving the official letter, otherwise the project activities will be deemed not to have been submitted[68].

A project activity will be approved with reservations if its contribution to sustainable development is considered adequate by the members of the Interministerial Commission, but publishing errors or other inconsistencies of lesser importance are verified[69].

The Letter of Approval will be issued immediately after the corrections have been deemed satisfactory by the Executive Secretariat of the Interministerial Commission. If necessary, another official letter may be sent to the project proponents requesting additional explanations.

6 Procedures for project activities under review

If a project activity is deemed to be under review, the Executive Secretariat of the Interministerial Commission will forward an official letter to the person responsible for communications, indicating the demands that must be fulfilled, as determined by the Commission. The national proponents of the project activity must satisfy these reservations within 60 days of receiving the official letter, otherwise the project activities will be deemed not to have been submitted[70].

A project activity will be deemed to be under review if the Interministerial Commission requires additional explanations regarding its contribution to sustainable development, or if publishing errors or other inconsistencies of importance are verified[71].

The Letter of Approval will be issued immediately after the corrections have been deemed satisfactory by the Interministerial Commission at its meeting following the response to the official letter. For this analysis to occur at the very next meeting, the response must be received at least 10 working days in advance[72].

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68 Article 7, paragraph 2, Resolution no. 3.

69 Article 7, Resolution no. 3.

70 Article 8, paragraph 2, Resolution no. 3.

71 Article 8, Resolution no. 3.

72 Article 3, Resolution no. 5.

7 Situations in which the Letter of Approval may be revoked or annulled

If the Interministerial Commission becomes aware of any illegalities or acts that are contrary to the public interest on the part of the CDM project participants, it may:

- request additional information from other public bodies in order to instruct a review of the project activity, and request additional information and documents to those already stipulated by Interministerial Commission resolutions from the project activity proponents[73].

If, after the Letter of Approval has been issued for a given CDM project activity, there is new evidence of illegalities or acts that are contrary to the public interest, the Interministerial Commission may:

- annul or revoke the Letter of Approval – the Letter will be annulled if illegalities are verified in the process for obtaining the Letter or related to the project activities and revoked if an act or situation contrary to the public interest is verified[74].

If a Letter of Approval is annulled or revoked, the Executive Secretariat of the Interministerial Commission will send an official letter to the person responsible for communications indicating the Interministerial Commission's decision and the reasons on which it is based. After the decision has been handed down, the right to defense can be exercised, in writing, within 15 days as of the reception date of the official letter. After this period has elapsed and the written defense has been examined by the Interministerial Commission at its subsequent ordinary meeting, the Commission's chairman will issue a definitive decision within 15 days, which will be sent by official letter to the person responsible for communications, together with the reasons for the decision.

In the case of a definitive decision to annul or revoke the Letter of Approval, the Executive Secretariat of the Interministerial Commission will inform the CDM Executive Board of its decision and, if the project activity has yet to be registered, request its review before that Board[75].

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73 Article 1, Resolution no. 4.

74 Article 2, Resolution no. 4.

75 Article 3, Resolution no. 4.

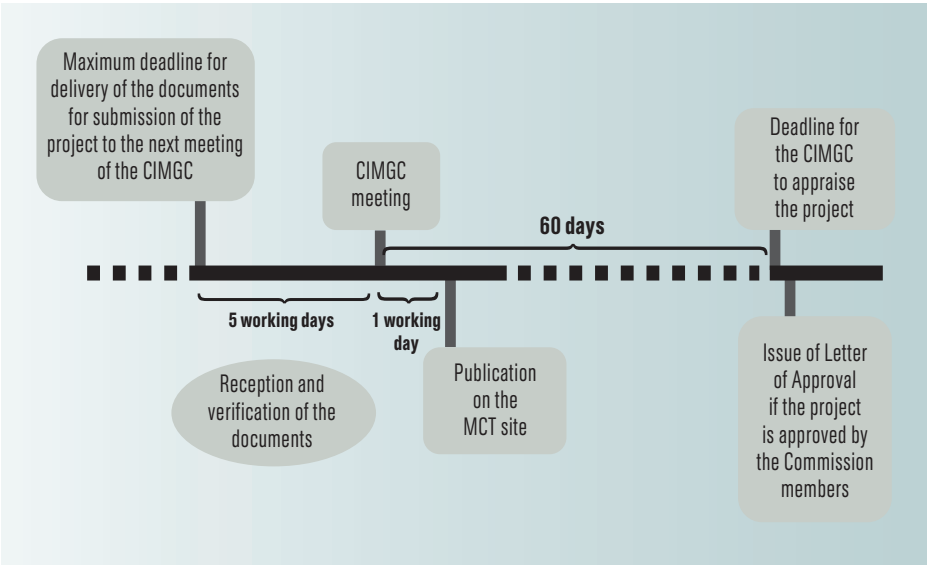
It is worth noting that the Interministerial Commission, in all its operations, respects the applicable laws and regulations governing Public Administration actions, whereby all those under its authority are ensured the right to defense and the right to petition and the principles of transparency and accountability are respected.

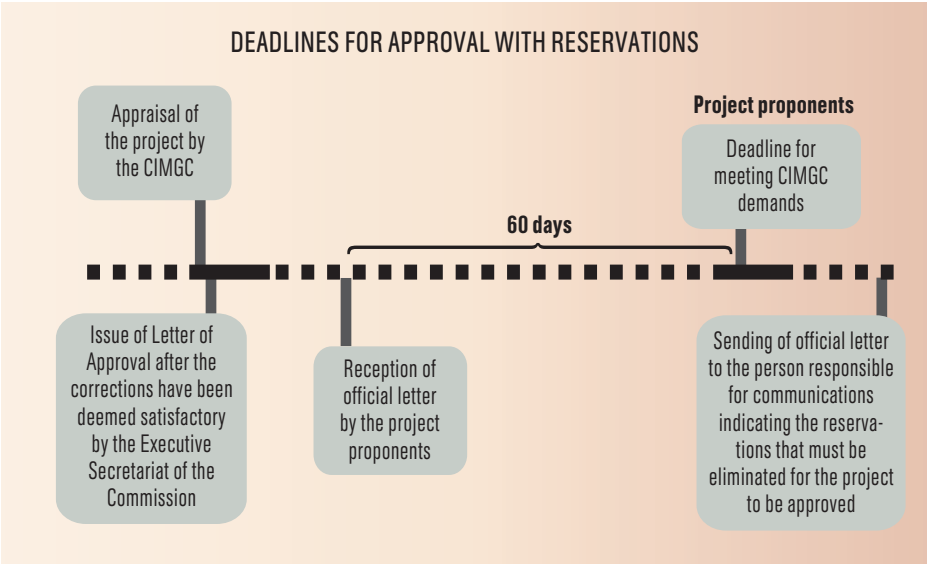
8 Check List

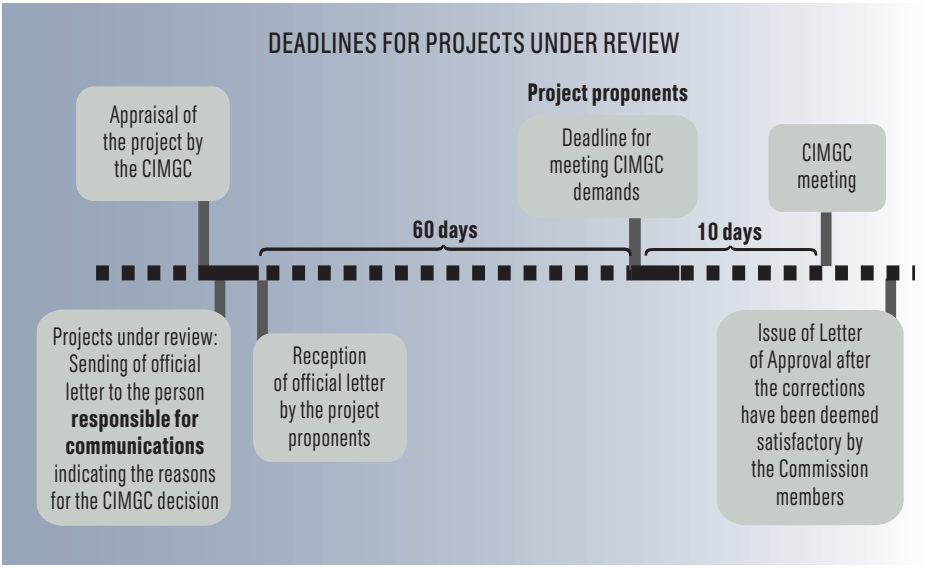
The table below lists the documents that must be presented in printed and electronic form (with at least one document in each group) and serves as a check list. For more details on each item see the main body of the Manual.

Document	Printed Version	Electronic Version
Project Referral Letter		
(1) PDD (Project Design Document)		
(2) DCP (Documento de Concepção do Projeto, in Portuguese)		
(3) Annex III (Contributions to Sustainable Development)		
(4) Letters of Invitation		
(5) Validation Report		
(6) Relatório de Validação (in Portuguese)		
(7) Declarations of the Project Participants (originals)		
1 Person responsible for communications and contact information		
2 Conformity with Environmental Legislation		
3 Conformity with Labor Legislation		
(8) Situation of the DOE		
(9) Complementary Documents		

9 Deadlines


Maximum deadline for delivery of the documents for submission of the project to the next meeting of the CIMGC
CIMGC meeting
Deadline for the CIMGC to appraise the project
60 days
5 working days
1 working day
Reception and verification of the documents
Publication on the MCT site
Issue of Letter of Approval if the project is approved by the Commission members


DEADLINES FOR APPROVAL WITH RESERVATIONS
Appraisal of the project by the CIMGC
Project proponents
Deadline for meeting CIMGC demands
60 days
Issue of Letter of Approval after the corrections have been deemed satisfactory by the Executive Secretariat of the Commission
Reception of official letter by the project proponents
Sending of official letter to the person responsible for communications indicating the reservations that must be eliminated for the project to be approved



10 Address for Correspondence

Dr. José Domingos Gonzalez Miguez

Secretário Executivo

Secretaria Executiva da Comissão Interministerial de Mudança Global do Clima

Ministério da Ciência e Tecnologia

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