

Implementing CDM projects

Guidebook to Host Country Legal Issues



BAKER & MCKENZIE

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A Guidebook to Host Country Legal Issues

Paul Curnow,
Baker & McKenzie

Glenn Hodes,
UNEP Risoe Center

Editors

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BAKER & MCKENZIE



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UNEP Risoe Centre
Risoe DTU
Box 49
DK-4000, Roskilde
Denmark
Tel +45 4632 2288
Fax +45 4632 1999
www.uneprisoe.org

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Paul Curnow, Partner, Baker & McKenzie

Glenn Hodes, Senior Economist, UNEP Risoe Center

Editors

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1 Introduction

Participants in CDM projects face many risks. In addition to political and economic risks associated with investments in emerging markets, participants face new and unfamiliar risks linked to the Kyoto Protocol and its implementation, such as carbon price volatility, the risk that CERs will lose their value after the first Kyoto commitment period, and the need to obtain all necessary CDM project approvals. Likewise, the CDM Executive Board has identified weak domestic legal regimes as both a key barrier to CDM investment, in general, and as a contributing factor to the unequal regional distribution of CDM project activities. This underscores the need to strengthen domestic CDM regulatory structures in order to facilitate delivery and scale-up of the CDM, as well as the need for related capacity building, "in order to make the CDM function..."

This Guidebook addresses a wide range of legal and regulatory issues arising from the domestic laws, regulations and policies of CDM Host Countries that can affect the development and implementation of CDM projects. Host Country domestic laws interact – both negatively and positively – with the international rules that underpin the CDM. At this critical juncture of change and uncertainty surrounding the evolution of the carbon markets and the flexible mechanisms under the Kyoto Protocol, it is more important than ever that CDM stakeholders understand how such domestic legal and regulatory frameworks can be enhanced and harnessed to facilitate the development of a greater number of CDM projects that have clear sustainable development benefits.

Policymakers in CDM Host Countries have a key role to play in establishing more stable and functional domestic legal regimes that can increase the effectiveness of the CDM and mitigate risks faced by project participants. As

a capacity building tool, the primary audience of this Guidebook is therefore climate change policymakers and CDM project developers in developing countries; however, carbon investors will find it of equal interest. The Guidebook illustrates some Host Country laws that specifically address the CDM, as well as how general domestic legal regimes may impact or inhibit CDM project implementation, such as:

- property rights;
- environmental and planning laws;
- investment and taxation laws; and
- financial services regulations.

The Guidebook further seeks to demystify the myriad, complex issues surrounding the domestic implementation of CDM, such as:

- project approval processes;
- CER ownership; and
- taxation.

Development economists and policymakers have long recognized that predictable legal regimes are a foundation for economic growth and investment, a supposition demonstrated through numerous empirical country studies. As the World Bank notes, "no matter what factors are included in the analyses and what measures of property rights security are used, all report a close connection between growth and property rights security." Secure legal rights afford entrepreneurs and investors enhanced prospects of reward, and greater incentive to devote time and resources to new ventures. Without secure title to land and assets, predictability of treatment under financial services and taxation law, and clearly identifiable costs in complying with environmental and other regulations, even those who are willing to enter the market have difficulty procuring credit, accessing public infrastructure, and fending off rival claims to property. The investment that does take place is often skewed either towards

activities that earn a short-term return or that enjoy special political favor.

Weak domestic legal regimes can have a particularly negative effect on CDM projects – not just because carbon credit investments require secure rights to the underlying project, but also because they often entail long-term return periods and commitments that hinge upon the viability of an intangible asset. Viability will depend primarily on the security of the property rights surrounding the assets, the taxation and financial services treatment of the transactions, and the costs involved in complying with additional regulation, such as environmental approvals. Therefore, where legal regimes are weak, it is precisely these forms of investment that suffer most.

The International Emissions Trading Association (IETA) hinted at this problem in a 2002 guidance document on carbon contracts. Focusing on the security of property vis-à-vis the Host Government, it concluded: "there is a real sovereign risk issue because of the need to obtain Host Country approval," and that "there needs to be a statement by the [Host Country] government that the financial participant holds clear title to the rights to the ERs and CERs or comparable benefits resulting from the project."

In addition to sovereign risk, ownership of, and title to, project assets and CERs has been identified by counsel to the Permanent Court of Arbitration as a major source of potential disputes in carbon contracts. Problems have also been noted even where legal rights are clear, if those rights lack legitimacy or are inconsistently implemented by local and regional authorities. If the risk profile can be improved by clarifying the domestic legal and regulatory structures that affect CDM, this will be beneficial for the process as a whole.

For some of these issues, a limited amount of guidance is provided in the international rules governing the CDM (including the Kyoto Protocol, the decisions of the Conference of the Parties to the UNFCCC serving as the Meeting of the Parties to the Kyoto Protocol (*COP/MOP*) and the decisions of the CDM Executive Board – collectively the *CDM Rules*).

Thus, this Guidebook is most usefully read in conjunction with companion analyses (also developed by Baker & McKenzie with the assistance of the UNEP Risoe Center and other donors) that provide detailed information on the international rules governing the CDM:

- *Legal Issues Guidebook to the Clean Development Mechanism*, (<http://cd4cdm.org/Guidebooks.htm>) which explains the legal and contractual issues at the various stages of the CDM process, focussing primarily on the international legal system; and
- *The CDM Rulebook*, which is a comprehensive online user-friendly database of all the international CDM Rules, practices and procedures, including decisions of the CDM Executive Board. (cdmrulebook.org).

The Guidebook is structured as follows:

- **Chapter 3** provides an introductory overview to the international rules of the CDM and the Kyoto Protocol;
- **Chapters 4 and 5** set out Host Country laws which specifically address the implementation CDM, as well as Host Country laws generally that may impact upon or hinder the development of CDM projects;
- **Chapter 6** addresses the range of domestic property-related laws relevant to CDM Projects;

- **Chapter 7** examines the various domestic laws relating to taxation and financial services and their impact on CDM projects;
- **Chapter 8** discusses the impact of domestic environmental laws on CDM projects;
- **Chapter 9** provides a brief overview of the key contracting structures for CERs and explains how domestic law issues and risks are mitigated under such contractual arrangements.

2 Executive Summary

Since its establishment in 1998 under Article 12 of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (**UNFCCC**), the Clean Development Mechanism (**CDM**) has become firmly established. (The CDM is introduced in detail in chapter 3 of the Guidebook.) The success of the CDM is evidenced by the fact that, at the time of publication, more than 1,650 CDM projects had been approved by the CDM Executive Board, expected to generate a combined total of more than 1.3 billion Certified Emission Reductions (**CERs**). Hundreds more prospective CDM projects move closer to registration every day, as countries and companies around the world work together to use the CDM as a means of achieving their environmental and economic goals

While firmly established, the CDM also continues to evolve under an organic legal mechanism. Given that fact, and the relative immaturity of the international carbon markets, many legal issues remain to be addressed in order to ensure an effective functioning of the CDM. These include questions such as how Host Country domestic law interacts with the international CDM Rules, and how, in turn, a CDM Host Country can better utilise domestic legal structures to facilitate carbon investment within their jurisdictions. In all cases, however, the international CDM Rules stop short of providing definitive rules that govern the relationship of CDM participants with each other, with Host Country governments, and with the community at large. Thus, these issues are governed to a greater or lesser extent by the rules that exist (and in many cases, do not exist) within Host Countries themselves and as defined in commercial contracts and arrangements between CDM project participants.

This Guidebook thus focuses in particular on questions arising from the interaction of Host Country domestic laws with the CDM Rules that have evolved internationally. It identifies key areas that should be considered by firms and individuals before entering into CDM projects in any Host Country, and aims to enhance an understanding among Host Country stakeholders and policymakers of the ways in which domestic legal structures can be harnessed and enhanced to facilitate CDM activities within their jurisdictions.

Non-Annex I Parties wishing to host CDM projects, and Annex I Parties seeking to authorize participation in CDM projects must ensure that their domestic laws:

- comply with domestic legal requirements imposed by the CDM; and
- do not impede or preclude the participation of those Parties in the CDM.

In order to host CDM projects, potential Host Countries must comply with a number of basic participation requirements which govern involvement in the CDM (the **CDM Modalities** and the **CDM Rules**). These are outlined in chapter 3. In brief, they include:

- being a Party to the UNFCCC and the Kyoto Protocol;
- establishing a national authority (**Designated National Authority** or **DNA**) capable of approving proposed CDM projects;
- developing CDM project approval criteria; and
- issuing written approvals (**Letters of Approval** or **LoAs**) for projects which have been approved as CDM projects by the DNA.

DNAs have been structured by Parties in a number of ways, including as: units within existing government departments or ministries; inter-ministerial committees or as new and independent offices. Additional DNA functions can include identifying potential CDM projects, financing such projects and promoting the CDM. In considering DNA structuring it is important that Host Countries prioritize impartiality, transparency and efficiency for LoA issuance processes.

Beyond the basic domestic legal frameworks prescribed by the CDM Rules, Host Countries are free to introduce additional domestic laws specifically regulating CDM activities within their jurisdictions. Laws already enacted govern: the terms and type of involvement of Host Country entities in CDM projects; investment in and ownership of CDM projects; taxation regimes for CDM projects; and the price at which CERs generated by CDM projects in the relevant Host Country can be sold. It is important that such laws be suitable and appropriate to the existing laws and other relevant circumstances of the Host Country.

The domestic law of Host Countries can impact on the additionality of potential CDM projects. Where a Host Country domestic law mandates or requires action to reduce greenhouse gas (GHG) emissions, this can undermine the demonstration of additionality by removing or undermining the importance of CER revenue to the success of such measures. This can result in perverse incentives for Host Countries to avoid implementing laws to reduce emissions, or laws which encourage activities which actually increase emissions. It is therefore important to understand the impacts that domestic laws and policies may have on additionality.

A further point of interplay between the CDM Rules and domestic laws and policies is in

Programmatic CDM, in which groups of CDM activities are grouped together and registered as a single Program of Activities (POA) or "Programmatic" CDM project. Programmatic CDM can help remove regulatory and cost barriers that would otherwise restrict small-scale CDM project activities. PoAs are led by government authorities or private entities responsible for introducing and implementing the relevant policy or standard.

Many Host Countries have already taken steps to identify and remove existing laws that could impact on CDM project development. This is discussed in chapter 5. Such laws include those governing: project assessment and approval; title to the land on which CDM projects are developed; (foreign) investment; resources to be exploited by such projects (e.g. renewable energy); securities and financial products; public sector transparency; employment and labour; and the use and trade of project outputs. Host Countries should consider what alterations to domestic legal frameworks could remove barriers to CDM projects and open the way for greater carbon investments. Domestic laws of particular relevance are examined in chapters 6, 7 and 8.

Chapter 6 explores ways in which domestic property laws can impact on legal entitlements to the property assets which underlie CDM projects. The Guidebook argues that domestic property laws that clearly define and adequately protect property rights of participants in CDM projects will give project developers and investors confidence that their projects can be successfully implemented and that project outputs and returns can be secured appropriately. This is particularly true of CERs, which while defined under international law as internationally tradeable units, are often not explicitly defined under Host Country property laws. Uncertain domestic legal treatment of

title to CERs and the GHG emission reductions that underpin them would heighten the legal risks associated with CDM investment.

Other domestic property law issues which can affect CDM projects include:

- rights and title to revenues from the sale of CERs, including domestic legal presumptions (e.g. a presumption that such CERs are the property of the State or the owner of the land upon which the CDM project is situated);
- rights, conditions or restrictions with respect to the land on which CDM projects are built and operated by Annex I or other foreign entities (including customary land title and restrictions on foreign ownership of such assets);
- the extent to which project participants and other parties can use contracts to allocate title to CERs and project assets (including in relation to carbon sequestration rights for forestry projects); and
- whether, and under what conditions, some or all of the CERs or other CDM project assets may be expropriated by the Host Country (including compensation to the owners of compulsorily acquired assets).

Participants in CDM projects have developed a number of ways to minimize the risks posed by legal uncertainty in these areas. These strategies range from ensuring that the treatment of title to CERs is clearly structured in emission reduction purchase agreements (**ERPAs**) to developing joint venture structures to maximize the value that can be extracted from CDM projects in jurisdictions where foreign ownership restrictions apply.

Taxation and financial services regulations also impact on CDM projects. This is examined in

chapter 7 of the Guidebook. The CDM Rules do not explicitly deal with the status of CERs as a security or commodity and this, together with taxation relevant to CERs, is left to domestic legislation. Four key issues relevant to CDM projects are governed by taxation and financial services regulation:

- whether a CER generated from the project will be treated as a security or a commodity (this is important because securities trading is often regulated more stringently than commodities trading, producing higher transaction costs for market participants);
- foreign exchange controls applicable to CER transactions (which is highly jurisdiction-specific);
- taxation of CER transactions (including taxation concessions and incentives; taxation on revenues from CER sales and through indirect taxes such as goods and services or value-added taxes);
- whether projects are subject to foreign direct investment restrictions or special legal protections; and
- CER pricing controls, under which proposed projects only receive Host Country approval if its CERs are sold above a floor price.

Domestic environmental laws can also impact on CDM projects. This is dealt with in chapter 8 of the Guidebook. In most Host Countries, major infrastructure projects more typical of CDM projects are subject to environmental and planning approval processes. These are usually entirely separate from the Host Country approval processes applied by Host Countries in accordance with the CDM Rules. In order to minimize costs and delays associated with such approvals, it can be advantageous for Host Countries to coordinate the timing of domestic processes with those

required under the CDM Rules. Three key elements of domestic environmental regulation are:

- the necessity for environmental impact assessments and if relevant whether these are required for all components and stages of a CDM project;
- environmental approvals required for project construction and operation and whether and when such approvals must be renewed; and
- the liability of CDM project participants for environmental harms caused by the project.

As with any other project, CDM projects are subject to a range of project risks. These risks arise in part from the domestic legal issues discussed above. Additional risks, and the ways in which they are customarily managed by project participants, are outlined in Chapter 9.

Project development agreements generally clearly define the ownership of CDM project assets and CERs, to minimize the risk of disputes between project participants or competing claims over these assets. The structures envisaged in these agreements generally fall into three main categories, all of which involve different distributions of rights and obligations between Annex I and Host Country project participants.

Under a Project Development Agreement structure, an Annex I entity will usually be involved in the design and development of a CDM project at an early stage, usually in exchange for rights to sell (often with revenue sharing arrangements) all or a majority of CERs. Under an ERPA developer structure, the Annex I party will also be involved in the development of the CDM project but will usually purchase the CERs generated under a separate ERPA. Finally, under an ERPA offtake structure, a Host Country party will usually retain control over the design and implementation of the project while the

role of the Annex I entity will be limited to purchasing CERs from the project.

Other relevant contracting issues include:

- whether CERs are sold and purchased on a spot basis (transferred immediately upon or soon after ERPA execution) or under forward arrangements (where a stream of CERs is purchased over time);
- whether the purchase volume is a guaranteed volume of CERs, or only a portion of the volume generated by the project;
- responsibility for paying costs and liability for taxes; and
- the treatment of events of default and disputes.

3 Introduction to the CDM in the International Climate Change Regulatory Framework

The Clean Development Mechanism (**CDM**) is one of the three flexibility mechanisms of the Kyoto Protocol to the United Nations Framework Convention on Climate Change (**UNFCCC**). The goal of the UNFCCC and Kyoto Protocol is to reduce the emission of GHG emissions into the atmosphere, in order to mitigate human-induced climate change. The CDM was created to promote the hosting of GHG reduction projects by developing country parties to the Kyoto Protocol, using finance provided by developed country parties in order to make these projects possible.

By enabling the implementation of GHG reduction projects in developing countries, the CDM contributes to the sustainable development of those countries, while also allowing them to contribute to the GHG reduction objectives of the UNFCCC and Kyoto Protocol. At the same time, CDM projects assist developed country parties that finance such projects to meet their legally binding GHG reduction obligations, by generating Certified Emission Reductions (**CERs**) that can be used to meet their emission reduction obligations under the Kyoto Protocol or the European Union Emission Trading Scheme.

The CDM was established under Article 12 of the Kyoto Protocol, which was agreed upon in 1992. The detailed rules and modalities for the CDM were subsequently agreed upon by Kyoto Protocol parties in 2001, as part of the so-called Marrakesh Accords, in that same year, the CDM Executive Board was formed and began building the structure and process of the international CDM system. The first CDM projects were officially registered with the Executive Board in 2004, and since then the number of projects in the pipeline has continued to grow steadily.

The UNFCCC

The CDM forms a part of the international legal framework regulating anthropogenic GHG emissions and their mitigation, as well as global adaptation to climate change. Negotiated by the countries participating in the 1992 Earth Summit in Rio de Janeiro, the UNFCCC provides the foundation for this international legal framework.

The UNFCCC is specifically directed to the stabilization of GHG concentrations in the Earth's atmosphere "at a level that would prevent dangerous anthropogenic interference with the climate system". The UNFCCC does not, however, impose any quantified emission reduction targets or equivalent obligations on its Parties. Rather, as its name suggests, the UNFCCC only provides a framework for activities addressing climate change, including the preparation of national GHG inventories, the consideration of climate change in the development of domestic policy, the transfer of technologies with which to tackle climate change, and the raising of awareness of climate change and its impacts.

The Kyoto Protocol

The Kyoto Protocol's function is described in the UNFCCC's background publication, *Caring for Climate*, in the following way: the Kyoto Protocol supplements and strengthens the UNFCCC, providing a framework for remedial and precautionary action to tackle adverse effects of climate change. The Kyoto Protocol is discussed in more detail below, but in brief, its rules focus on:

- commitments, including legally binding GHG emission targets and general commitments;
- implementation, including domestic

steps and three novel implementation mechanisms;

- minimizing impacts on developing countries, including use of the Adaptation Fund;
- accounting, reporting and review, including in-depth review of national reporting; and
- compliance, including a Compliance Committee to assess and deal with problems.

COP/MOP

The functions of the COP/MOP in relation to the CDM are set out in 3/CMP.1, Annex, paragraphs 2-4: The COP/MOP provides guidance to the Executive Board by taking decisions on:

- recommendations made by the Executive Board on its rules of procedure;
- recommendations made by the Executive Board, in accordance with provisions of decision 17/CP.7, the present annex and relevant decisions of the COP/MOP; and
- the designation of operational entities accredited by the Executive Board in accordance with Article 12, paragraph 5, and accreditation standards contained in appendix A below.

The COP/MOP further:

- reviews annual reports of the Executive Board;
- reviews the regional and subregional distribution of designated operational entities and takes appropriate decisions to promote accreditation of such entities from developing country Parties;
- reviews the regional and subregional distribution of CDM projects with a view to identifying systematic or systemic

barriers to their equitable distribution and takes appropriate decisions, based, *inter alia*, on a report by the Executive Board; and

- assists in arranging funding of CDM projects, as necessary (3/CMP.1, Annex, paragraphs 2-4).

Executive Board

The Executive Board supervises the CDM, as set out in Article 12(4) of the Kyoto Protocol. Its functions do not include the power to make decisions on the rules of the CDM.

Outcomes of Executive Board meetings should be considered 'guidance' and subject to the approval of the COP/MOP. Executive Board functions include:

- making recommendations to the COP/MOP on further modalities and procedures for the CDM;
- approving new baseline and monitoring methodologies;
- overseeing the accreditation of designated operational entities (DOEs), who actually validate the eligibility of, and verify the emission reduction performance of, CDM projects;
- establishing and maintaining a database of approved rules, procedures and methodologies; and
- developing and maintaining the CDM registry.

The Kyoto Protocol

Legally binding, quantified emission reduction obligations only became part of international law with the entry into force of the Kyoto Protocol to the UNFCCC, agreed by the Parties to the UNFCCC in 1997. The Kyoto Protocol strengthens the UNFCCC by imposing

quantified emission reduction obligations on Parties that have ratified the Kyoto Protocol and are included in UNFCCC Annex I (**Annex I Parties**). These emission reductions are binding under public international law, and must be achieved during the Kyoto Protocol's first commitment period, which extends from 2008 to 2012.

The obligations imposed by the Kyoto Protocol represent an average reduction in GHG emissions of 5.2% below 1990 emission levels across Annex I Parties during the first commitment period. The specific emission reduction obligations accepted by Annex I Parties are, however, adapted to their respective circumstances, such that each may bind itself to an achievable target. For example, the emission reduction obligations accepted by Canada and Japan, represent reductions of 6% below their respective 1990 emission levels, whereas Australia and Iceland are only required to limit future increases in their GHG emissions, by accepting reduction obligations of 8% and 10% above their 1990 emission levels, respectively.

Parties to the Kyoto Protocol that are not included in Annex I (generally developing country Parties) (**Non-Annex I Parties**) are not required under the Kyoto Protocol to accept quantified emission reduction obligations, reflecting the principle of "common but differentiated responsibilities" that underpins the UNFCCC and Kyoto Protocol.

Despite not currently having binding quantified emission reduction targets, Non-Annex I Parties must still abide by the objectives of the Kyoto Protocol and UNFCCC, and contribute to the mitigation of, and adaptation to, anthropogenic climate change. Ways in which Non-Annex I Parties are required to contribute include:

- undertaking national climate change and GHG emission data collection and reporting;
- instituting national and regional climate change mitigation and adaptation programs; and
- cooperating in climate change technology transfer and capacity building programs.

The Kyoto Protocol came into force on 16 February 2005, and as at publication, had been ratified, approved, accepted or acceded to by 183 countries and 1 regional economic integration organization (the European Economic Community).

The CDM: Article 12 of the Kyoto Protocol

Article 12 of the Kyoto Protocol establishes the CDM, and defines its purpose as being:

to assist Parties not included in Annex I [to the UNFCCC] in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3 [of the Kyoto Protocol].

The objectives of the CDM are thus threefold:

- (a) to assist Non-Annex I Parties in achieving sustainable development;
- (b) to assist Non-Annex I Parties in contributing to the avoidance of "dangerous anthropogenic interference with the climate system"; and
- (c) to assist Annex I Parties in meeting their emission reduction obligations under the Kyoto Protocol.

The CDM achieves these objectives in the following ways:

- The CDM enables Annex I Parties (or, as is more often the case, companies from Annex I Parties that have been authorized by those Parties to participate in the CDM (**Annex I Entities**)) to provide finance for approved GHG reduction projects located within the territory of Non-Annex I Parties. This finance is provided through the purchase by Annex I Entities of CERs issued on the basis of the GHG reductions achieved by CDM projects. Each CER represents "one tonne of carbon dioxide-equivalent sequestered or abated".
- CERs are valuable, internationally tradeable instruments that can be acquired and surrendered by Annex I Parties as a means of offsetting their domestic GHG emissions and thereby meeting their Kyoto Protocol emission reduction obligations. By enabling project developers and other project participants to generate additional finance for a CDM project through the sale of CERs, the CDM enables the development and implementation of GHG reduction projects that would not otherwise be viable.
- GHG reductions may often be achieved more cost-effectively in Non-Annex I Parties than Annex I Parties, as a result, for example, of the greater reliance of Non-Annex I Parties on less efficient technologies, and the availability of relatively inexpensive resources and labour in those countries. This means that CDM projects often present relatively cost-effective GHG reduction opportunities, which if captured and used to market CERs to Annex I Parties, can reduce the need for Annex I Parties to pursue relatively expensive domestic reduction options.
- In accordance with the Kyoto Protocol's

objectives, projects approved and implemented in accordance with the international CDM rules must demonstrably contribute to the sustainable development of the Non-Annex I Party hosting them (**CDM Host Country**). This means by not only reducing or sequestering their GHG emissions, but also by contributing to broader Host Country sustainable development goals. Examples of ways in which CDM projects fulfill this requirement include creating employment, facilitating technology transfer, and enhancing the quality of, or access to, local infrastructure.

By channeling finance from Annex I Parties to Non-Annex I Parties to enable the implementation of CDM projects that achieve cost-effective GHG reductions while contributing to the broader sustainable development of Host Countries, and allowing those GHG reductions to be used by Annex I Parties to comply with their Kyoto Protocol commitments, the CDM is able to achieve each of the objectives set out above.

The *UNEP Risoe CDM/JI Pipeline* contains the most extensive and widely utilized database on CDM projects and CER issuances. The database is free and accessible online at <http://cdmpipeline.org>

4 Host Country Compliance and Domestic Legal Requirements under the CDM Rules

The Relationship between the CDM Rules and Domestic Law

As with other international legal instruments, the CDM impacts upon, and is impacted by, the domestic laws of the Parties seeking to make use of it. Non-Annex I Parties wishing to host CDM projects (i.e. CDM Host Countries), and Annex I Parties seeking to authorize participation in CDM projects, must ensure that their domestic laws:

- comply with the domestic legal requirements imposed by the CDM; and
- do not (inadvertently or otherwise) impede or preclude the effective participation of those Parties in the CDM.

The relationship between the international CDM Rules and domestic law is particularly complex in the case of Non-Annex I Parties. In order to successfully host a CDM project, a Host Country's domestic law must provide for:

- national assent or approval of CDM projects proposed for implementation, in accordance with the international rules; and
- a regulatory environment in which the project can be successfully implemented.

This chapter discusses the legal requirements under the CDM Rules with which Host Countries must comply in order to successfully implement CDM projects, and generate project finance through the sale of CERs.

Host Country Compliance with the CDM: Domestic Legal Requirements

In order to implement CDM projects, CDM Host Countries must first comply with a number of basic participation requirements. These

requirements are set out in the CDM Rules, and in particular in COP/MOP decision 3/ CMP.1 *Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol (CDM Modalities)*. The requirements extend from the initial agreement to be legally bound by the Kyoto Protocol, through to the establishment of dedicated domestic structures, and procedures in order to give effect to the CDM within the jurisdiction of a Non-Annex I Party.

The participation requirements set out in the CDM Modalities typically incorporate a domestic legal element, requiring the introduction by Non-Annex I Parties of a specific domestic legal measure in order to achieve compliance. The specific participation requirements in the CDM Modalities, and the associated domestic legal requirements, are outlined below.

Ratifying the UNFCCC and Kyoto Protocol

International Rule: Becoming a Party to the UNFCCC and Kyoto Protocol

The CDM Modalities provide that “[a] Party not included in Annex I may participate in a CDM project *if it is a Party to the Kyoto Protocol*”.

Thus, first and foremost among the participation requirements for hosting CDM projects set out in the international CDM Rules is the need to have ratified, or otherwise agreed to be bound by, the UNFCCC and the Kyoto Protocol.

In order to become a Party to the Kyoto Protocol, a country must, in exercise of its

sovereignty under international law and in accordance with its own domestic laws, have:

- ratified or otherwise agreed to be bound by the UNFCCC, as the international legal framework of which the Kyoto Protocol forms a part; and
- ratified or otherwise agreed to be bound by the Kyoto Protocol specifically.

Countries may agree to be bound by the UNFCCC and the Kyoto Protocol by depositing with the Secretary-General of the United Nations, acting as Depositary, an instrument of ratification, accession, acceptance or approval of the UNFCCC or Kyoto Protocol, as appropriate.

The requirement that a country be a Party to the Kyoto Protocol in order to participate in the CDM applies equally to Annex I Parties seeking to authorize participation of Annex I Project Participants in CDM projects as it does to Non-Annex I Parties seeking to host those projects.

At the time of publication, only a small number of States who are Parties to the UNFCCC have not also signed or ratified the Kyoto Protocol: Afghanistan, Brunei Darussalam, Chad, San Marino, and Zimbabwe. With Kazakhstan's ratification of the Kyoto Protocol in March 2009, the USA is now the only signatory to the Protocol not having ratified the instrument.

Investors should ensure that this process has been satisfactorily completed in those jurisdictions where national constitutions or other founding documents require the enactment of domestic legislation in order to implement ratified international instruments.

Establishing a Designated National Authority

International Rule: Establishing a Designated National Authority

Parties to the Kyoto Protocol—whether or not they are included in Annex I—are required under the CDM Modalities to “designate a national authority for the CDM”.

The national authorities designated by a Non-Annex I Party play a vital role in the implementation of CDM projects, most importantly by assessing and approving proposed CDM projects.

The CDM Modalities provide limited guidance on the establishment, responsibilities and functions of the national CDM authorities required to be established under the CDM Rules (known as Designated National Authorities or **DNAs**). The CDM Modalities do, however, specify that DNAs of Non-Annex I Parties must approve CDM projects hosted by those Parties, by issuing written approval for those projects. These approvals must confirm that:

- participation in the proposed CDM project is voluntary; and
- implementation of the proposed CDM project will contribute to the Host Country's sustainable development (in accordance with the broader objectives of the CDM).

Thus, prospective CDM Host Countries must establish a DNA capable of approving proposed CDM projects in the terms set out above. The implications of the need to establish a DNA mandated to assess and approve CDM projects are discussed below.

As previously mentioned, neither the CDM Modalities nor the international CDM Rules more broadly provide detailed guidance on the establishment and functions of DNAs. These issues are instead left to the discretion of individual CDM Host Countries.

DNAs may be established in a variety of ways, for example through the enactment of legislation, and may take a variety of forms, for example an inter-governmental committee. Whichever approach is adopted, it is important that a DNA can:

- elaborate its decisions and administrative procedures based on a sound legal foundation and institutional mandate;
- act as a clear point of contact for entities wishing to investigate or pursue CDM projects in the country;
- approve proposed CDM projects fairly, effectively and efficiently; and
- facilitate intergovernmental coordination and decision-making to ensure that appropriate CDM policies are adopted and implemented to fully harness a country's CDM potential.

In general terms, it is important that the DNA be able to fulfill these functions in a clear and transparent manner. This is integral not only to the administration of CDM activities in Host Countries but also to building investor confidence, and therefore encouraging investment, in such activities.

It is also important that the DNA be proactive in reviewing and regularly updating its procedures to enhance the local implementation of CDM projects.

A number of different DNA structures have been adopted by CDM Host Countries and there is no "one-size-fits-all" model. The size and functional scope of DNAs varies

considerably between Parties. Some examples of DNA structures that have been adopted are set out below.

DNA within an Existing Government Department or Ministry

The majority of DNAs are set up within an existing government department, often the department of environment, energy, infrastructure or foreign trade and investment.

A number of Host Countries have appointed the national department or ministry responsible for the environment to act as DNA. For example, the Vietnamese DNA (the National Office for Climate Change and Ozone Protection) has been constituted within the International Cooperation Department of the Ministry of Natural Resources and Environment, and Malaysia has also appointed the Ministry of Natural Resources and Environment as its DNA.

Nonetheless, it is by no means obligatory when appointing an existing department or ministry as DNA to select the department or ministry responsible for the environment, and the role may equally be performed by authorities responsible for international trade, finance, natural resources, energy or foreign affairs, provided the authority selected has the relevant expertise and governmental mandate. In South Africa, for example, the DNA was originally set up within the Department of Environmental Affairs and Tourism (DEAT), but the Department of Minerals and Energy (DME) subsequently agreed with DEAT to take over the role of DNA. The new DNA was officially established in December 2004 and the corresponding regulations published in July 2005.

DNA as an Inter-Ministerial Committee

Some DNAs are formed as inter-ministerial committees. This model facilitates whole of government coordination, meaning that any necessary inter-departmental requirements and approvals can be readily obtained.

In some countries, the DNA itself is a discrete body within a government department, but is established simply to process applications and forward them to an inter-ministerial committee which conducts the full assessment. Government departments that are typically represented on these committees include energy, environment, transport, agriculture, mining and resources, meteorology, foreign trade and investment, treasury and the Attorney-General's department.

Brazil, for example, has constituted the Inter-Ministerial Committee on Global Climate Change to act as the country's DNA. A Presidential Decree commissioned this committee in 1999, making Brazil one of the first developing nations to establish a DNA. The Decree establishes that the Committee will approve CDM projects and is also responsible for the definition of additional eligibility criteria beyond those rules established under the Kyoto Protocol.

Currently, the Brazilian DNA includes many ministries, including the Minister of Science and Technology, the Minister of the Environment and members of the Foreign Relations, Agriculture Livestock and Supply, Transportation, Mines and Energy and Development Industry and Foreign Trade Ministries, as well as the Chief of Staff of the Presidency of the Republic.

Another example of this model is China's DNA, the National Development and Reform

Commission (NDRC), which approves Chinese CDM projects in consultation with the Ministry of Science and Technology (MOST) and the Ministry of Foreign Affairs (MOFA), based on the assessment results of the National CDM Project Examination Board set up by the National Coordination Committee on Climate Change. The Board itself is co-chaired by NDRC and MOST, and consists of representatives from seven relevant government agencies: NDRC; MOST; MOFA; Ministry of Finance; Ministry of Environmental Protection; China Meteorological Bureau; and the Ministry of Agriculture.

DNA as a New and Independent Office

Host Countries may also establish an entirely new, separate office to act as its DNA, as is the case in Indonesia.

Indonesia's DNA, the National Commission for Clean Development Mechanism (NC-CDM), was established by Decree No. 206 of the Indonesian Ministry of Environment passed on 21 July 2005, and operates as a "one-stop shop" for investment in CDM projects. The NC-CDM comprises members and a chair drawn from relevant government ministries, as well as a secretariat, an expert group, a technical team and a stakeholder forum encompassing local government, private sector representatives and NGOs. The NC-CDM is supported by the Research and Development Centre for Energy and Electricity within the Ministry of Mineral and Energy Resources, which assists in the assessment of CDM projects proposed in the energy sector, including through the development and application of sector-specific sustainable development criteria.

Additional Functions for DNAs

The CDM Rules do not place any restrictions on the functions and responsibilities that non-Annex I Parties allocate to DNAs through its domestic laws. Non-Annex I Parties are free to go beyond the minimum requirements set out in the CDM Rules with respect to DNAs, and to authorize their DNAs to take a more proactive role in the CDM process. For example, DNAs could consider actively promoting the implementation of CDM projects in their respective countries by:

- assisting in the identification of investment opportunities or in the prioritization of investment sectors;
- coordinating the development of a portfolio of priority projects and networking information for marketing CDM activities and promoting CDM opportunities with trading partners;
- linking local CER sellers with foreign purchasers;
- facilitating and coordinating the implementation of CDM capacity building programs to enhance local knowledge and interest in the CDM;
- monitoring the sustainable development impacts of CDM projects under implementation, and reporting on national CDM programs to national policymakers;
- working with other government bodies to remove domestic legal and regulatory barriers to CDM projects, and to ensure that CDM project approval processes are as transparent and efficient as possible; and
- coordinating internal climate change policy and developing positions for international climate change negotiations.

DNA engagement in a broader range of Host Country CDM processes is likely to reduce domestic legal barriers to CDM

project implementation within Host Country governmental structures, and reduce any perceived risk associated with the DNA and its performance of its functions. This engagement entails building relationships between the DNA and relevant stakeholders, including foreign investors, and making the responsibilities and work of the DNA more transparent. By reducing perceived risks associated with its DNA, particularly in relation to transparency, a Host Country can increase confidence among potential investors, and ultimately may increase the level of investment and activity in the Host Country.

For example, some Host Countries have been encouraged to establish financial mechanisms to help project developers meet the initial upfront costs of preparing a Project Idea Note (PIN) and Project Design Document (PDD). Argentina, for example, established the Argentine Carbon Fund for this purpose. Although such mechanisms would reduce transaction costs and risks of developing CDM projects in the relevant country, it would be important that the DNA disregard this financial support when assessing projects for approval. Any bias by a DNA towards such projects could deter other project developers from submitting PINs and PDDs that had been independently financed. This would substantially hinder, rather than promote, CDM activities in the country. It is recommended that potential situations of conflict of interest such as this be avoided; thus some DNAs have clearly divided roles such that one agency has unique responsibility for promoting CDM projects while a second agency is solely responsible for regulating (i.e., assessing and approving) CDM project activities. For example, in Peru the Ministry for Environment (*MINAM*) is now the DNA, while another agency, the National Fund for the Environment (*FONAM*) has been designated as the agency responsible for promoting CDM project development.

CDM Approval Criteria

Prospective CDM Host Countries must establish CDM project approval procedures incorporating sustainable development criteria, by which they can independently assess and approve proposed projects. The transparent and timely application of those processes to proposed CDM project activities can increase investor confidence and help promote investment in, and the implementation of, CDM project activities within that country.

The international CDM Rules do not impose any restrictions or requirements on the project approval criteria adopted by Host Countries. Each therefore has the ability to define its own approval procedures and sustainable development criteria, and this task is typically delegated to the DNA. Typically, project approval processes and sustainable development criteria address the broader objectives of the CDM, including:

- (a) contribution to economic growth;
- (b) contribution to technology transfer; and
- (c) contribution to skills transfer, learning and employment.

Issuing LoAs

Once a DNA has determined that a proposed CDM project satisfies the Host Country's CDM approval criteria, the DNA is required, under the CDM Rules and in accordance with common practice, to issue an LoA for the project in the terms set out above. Issuance of an LoA is in turn a pre-requisite to the registration of that project by the CDM Executive Board as a CDM project.

It should be noted, however, that beyond satisfaction of the basic requirements set out in the CDM Rules (see above), LoAs can provide a useful tool with which to address key issues and risks associated with CDM projects, and thereby increase investor confidence and interest in CDM processes and activities within the relevant Host Country.

LoAs may, for example, address the issue of legal title to the GHG reductions and associated CERs that will be achieved by the approved project. Where several parties are involved in the development and implementation of a CDM project, it may be unclear which of the parties has *prima facie* legal title to the GHG reductions and CERs generated by the project under the domestic laws of the Host Country. In this context, some countries have discussed allowing the sharing of CERs among investors in proportion to their financial contributions. There is no commonly accepted formula for such sharing, however.

The LoA may, for example, provide a confirmation from the Host Country DNA that legal title to the GHG reductions and/or associated CERs generated by a CDM project vests in a particular Project Participant. This will provide increased certainty as to which party has title to CERs upon their issuance, and is therefore in a position to transfer this title to a purchaser of the CERs.

By way of illustration, LoAs issued by the South African DNA state that:

- (a) the Republic of South Africa owns all GHG emission reductions generated by CDM projects implemented in South Africa; and
- (b) on this basis, the Project Participant named as such in the LoA is authorized by the DNA to:

Approving CDM Projects

- (i) take ownership of the GHG reductions achieved by the relevant project once they have in fact been achieved; and
- (ii) sell the rights and title to those GHG reductions.

This explicit clarification naming the Project Participant who owns the CERs issued with respect to the project, and is entitled to sell such CERs, resolves any confusion or competition as to which party has title. It will also enable the named entity to warrant in any sale contract that the entity has full legal and beneficial title to the CERs, and will be able to transfer such title to the purchaser in accordance with the agreed contractual terms. CER purchasers typically require such a warranty when entering into transactions, so the existence of a clear legal basis upon which a seller can make such a warranty will give both parties substantially greater comfort when transacting CERs.

Some DNAs issue LoAs giving only conditional approval to putative CDM activities. The Indian DNA, for example, has attached conditions to some LoAs that it has issued. The Validation and Verification Manual (**VVM**) requires DOEs to determine whether such conditions have been imposed by the relevant DNA when undertaking validations.

DNA procedures, most critically the time delays for obtaining final LoAs, can influence the attractiveness of Host Countries for CDM investment. A track record revealing irregularity or frequent delays in LoA issuances can discourage such investment, while in contrast rapid and transparent LoA approval processes will encourage such investment.

International Rule: Developing CDM project approval criteria and Issuing Letters of Approval

The CDM Modalities require that Host Countries:

- assess CDM project activities proposed to be implemented within their jurisdiction using approval criteria and procedures, including criteria with which to verify that implementation of the proposed project will assist the Host Country in achieving sustainable development; and
- once a project has been approved in accordance with the relevant criteria and procedures, issue written approval for the project.

Thus, Host Countries must develop their own set of criteria, tests and standards with which their DNAs (the authorities responsible for issuing approvals) can determine whether a particular project will, among other things, contribute adequately to the Host Country' sustainable development.

Host Country DNAs must be mandated to prepare and issue written approval for projects that meet the applicable approval criteria. Current prevailing practice is for the DNA to issue a Letter of Approval (**LoA**) with respect to the proposed CDM project activity.

The CDM Rules require Host Country DNAs to confirm in their LoAs that:

- the Host Country has ratified the Kyoto Protocol;
- the Host Country's participation in the proposed CDM project is voluntary; and
- implementation of the proposed CDM project will contribute to its sustainable development.

Malaysia CDM approval criteria

The Malaysian CDM approval criteria as set out on the website of the DNA in order to make them accessible and transparent to prospective project developers, provide a good practice example of clear, rigorous criteria used to assess proposed CDM projects. The criteria that must be met by proposed CDM projects in order to be implemented in Malaysia are :

- (a) The project must support Malaysia's sustainable development policies, and contribute to sustainable development in Malaysia both directly and indirectly, in the relevant sector and in the broader Malaysian economy.
- (b) The proposed CDM project must involve one or more Annex I Parties. For the purposes of this criterion, an Annex I Party can be an Annex I Party national government or a private / public entity from an Annex I Party. An Annex I Party is considered to participate in a project if:
 - (i) the Annex I Party buys CERs from the project, and provides equity and technology for the project;
 - (ii) the Annex I Party buys CERs from the project, and provides equity for the project; or
 - (iii) the Annex I Party buys CERs from the project, and provides technology for the project.
- (c) The proposed project must provide technology transfer benefits and/or improvement in technology in accordance with the following:
 - (i) technology transfer and/or improvement in technology include both technology software and hardware;
 - (ii) CDM projects should lead to transfer of environmentally sound technologies and know-how;
 - (iii) improvement in technology implies that the project applies a technology that is more efficient and less carbon intensive than existing technologies;
 - (iv) the technology transferred and/or the relevant improvements in technology should support Malaysia's sustainable development objectives; and
 - (v) the technology transfer and/or improvement in technology should enhance the indigenous capacity of Malaysians to apply, develop and implement environmentally sound technologies.
- (d) The proposed CDM project must fulfill all conditions contained in the CDM Rules, being that:
 - (i) participation in the project is voluntary;
 - (ii) the project will achieve real, measurable and long-term benefits related to mitigation of climate change; and
 - (iii) the GHG reductions achieved by the project will be additional to any that would occur in the absence of the project.
- (e) The project proponent should demonstrate its ability to implement the proposed CDM project, by providing evidence of:
 - (i) incorporation of a local company with minimum paid-up capital of 100,000 Malaysian Ringgits; and
 - (ii) other likely sources of financing the project.



Revoking LoAs

Just as the process of obtaining an LoA to participate in CDM projects is a matter of domestic law, so too are the rules governing a DNA's right to revoke an LoA presumed to be a domestic rather than an international legal issue. This is due to the fact that the international CDM Rules do not specify any right for a Party to revoke an LoA, nor do they appear to contemplate such a course of action. Thus, the CDM Executive Board has confirmed that the notification of such a revocation *after* a project's registration would not affect its registration status. Conversely, the CDM rules do not expressly preclude LoA revocation, either. There is therefore some ambiguity as to the effect or impact of a DNA's LoA revocation on a particular project.

Under Brazilian law, for example, the Brazilian DNA can cancel or revoke an LoA if new

evidence of illegality or acts contrary to the public interest come to light after its issuance. The Brazilian DNA has confirmed that it would contemplate using this mechanism only in special cases.

If a Host Country objected to the continuation of a CDM project and sought to revoke the LoA, however, it could potentially take domestic legal action to make it illegal for the project participants to operate the project. For example, an injunction or court order against further implementation of the project could be obtained. This would effectively compel the project developer to cease operations, and thereby terminate the generation of CERs. Such action could expose a Host Country to litigation seeking to prevent revocation of the LOA or to administrative law remedies, and could also reduce its attractiveness as a foreign investment destination.

Supplementary Domestic CDM Laws

Beyond the basic domestic legal requirements imposed by the CDM Rules, potential CDM Host Countries are free to introduce additional domestic laws, policies and instruments specifically regulating CDM activities within their jurisdictions (**Supplementary CDM Laws**). Many Host Countries have implemented such supplementary laws, with the expressed intent of facilitating or promoting the implementation of CDM projects. These Supplementary CDM laws may also, however, impose additional requirements upon CDM projects, in that they ensure that those projects achieve particular outcomes or benefits. Examples of such requirements include regulation of the types of CDM projects that may be implemented within the Host Country, or the ways in which Annex I Entities can invest in, or purchase CERs from, such projects.

Supplementary CDM Laws may take a variety of forms, and encompass a broad range of laws and policies. Examples already in effect globally include:

*Laws governing **Host Country involvement** in CDM projects*

Host Countries may enact laws regulating the nature and extent that certain Host Country entities may have in CDM projects implemented within the country. For example, Indonesia's forestry regulatory framework effectively limits which Indonesian entity can apply for an LoA in respect of a forestry project on a state-owned forest area. This is due to an Indonesian Supplementary CDM law stipulating that in order for an Indonesian entity to obtain an LoA for an afforestation/reforestation project in such areas, the entity must first obtain a letter of endorsement for the project from

the Ministry of Forestry. The Ministry of Forestry will in turn only issue this letter to an entity holding (i) a Utilization of Environmental Services License (known as an "IUPHJL") or (ii) an Industrial Timber Estate Logging Concession (known as an "IUPHHK-HTI").

*Laws governing (whether restricting or facilitating) **foreign investment** in, or ownership of, CDM projects*

China, for example, has introduced a Supplementary CDM Law stating that "Chinese funded or Chinese-holding enterprises within the territory of China are eligible to conduct CDM projects with foreign partners". This rule requires that any entity seeking to implement a CDM project in China must be either:

- wholly Chinese-owned; or
- one in which another Chinese entity has a controlling interest.

In Indonesia, no foreign investment is permitted in power projects with a capacity of less than 10MW. Accordingly, foreigners cannot invest in small-scale renewable power projects.

In some cases, for example in Uganda, laws governing foreign investment have been reviewed or amended following the introduction of potential CDM activities in order to address CDM-specific investment incentives or disincentives.

*Laws establishing a special **taxation regime** for CDM projects and associated revenue and expenditures*

The fee imposed by the Government of Vietnam on the sale of CERs from Vietnamese CDM projects effectively functions as a CDM-specific fiscal regime.

Introduced under a Supplementary CDM Law, the regime (discussed in detail in section 7) requires owners of CERs generated by Vietnamese projects that sell the CERs to foreign buyers, or who remit CERs abroad in order to fulfil their emission reduction obligations, to pay a fee on this sale/remittance. The fee is calculated on the basis of the volume of CERs sold, the sale price of the CERs, and the type of CDM project that generated the CERs. A similar model is under consideration by the Tanzanian DNA.

Malaysia, on the other hand, has established an income tax exemption for income received from the sale of CERs, and deductions may be claimed for expenditure incurred for the purpose of obtaining the CERs. South Africa is designing a similar tax incentive scheme (see details in section 7).

*Laws providing particular benefits or **concessions with respect to particular CDM project types***

*Several Host Countries have enacted Supplementary CDM Laws that aim to support or prioritize specific project types or sectors, such as renewable energy and energy efficiency, coal mine methane and forestry projects. These laws may provide for measures such as special tax concessions, simplified approval procedures and government grants. Policies **regulating the sale price** of CERs generated by projects within the Host Country*

Host Countries are free to regulate the minimum sale price applicable to CERs or ERUs, as the case may be. The classic example is China's floor pricing policy, discussed in further detail in section 8. Where such steps are taken, it is important that the floor price can change to accommodate shifts in the prevailing market price (e.g. if the market price drops

below the floor price then the Host Country should be able to quickly and transparently lower the floor price). Host Countries also need to be aware of the potential for a floor price to effectively set a fixed price at which CERs from projects within the country will always be sold.

*Policies with regard to the type and terms of involvement of Annex I Entities in CDM projects within the relevant Host Country, for example the national eligibility of so-called "**unilateral CDM**" projects (i.e., those implemented without an Annex I entity named as a project participant at the time of registration) .*

Malaysia's CDM approval criteria stipulate that LoAs can only be issued to projects involving one or more Annex I Party. Although expressed in Malaysia's project approval criteria (as required under the international CDM Rules), this policy represents a *de facto* CDM Supplementary law adopted by Malaysia, independently of the CDM Rules.

The enactment of Supplementary CDM Laws generally represents an effective means of promoting the implementation of CDM projects in a Host Country. Most obviously, the enactment of laws granting benefits or concessions to CDM projects may mean that CDM projects within that Host Country are given relatively favorable regulatory treatment compared to other potential Host Countries, thereby increasing their ability to compete for and secure investment. Host Countries must, however, ensure that in drafting and enacting such laws they do not inadvertently undermine the CDM eligibility of the projects they are seeking to support, by mitigating their ability to satisfy the requirement of additionality. This issue is discussed in detail below, in section 4.

Case Study: Regulating and promoting CDM projects

Brazil: Mechanisms for financing CDM projects and activities

Brazil's Federal Government has instituted the following financing and credit mechanisms designed to encourage the development of CDM projects:

- (a) The Support Program for CDM Projects (*Programa de Apoio a Projetos do Mecanismo de Desenvolvimento Limpo - Pró-MDL*). This program, which is run by the Agency for Study and Project Finance (*Financiadora de Estudos e Projetos - FINEP*), finances pre-investment CDM activities as well as scientific and technological development efforts directed to the CDM, through reimbursable and non-reimbursable finance.
- (b) The Clean Development Program run by the National Bank for Economic and Social Development (*Banco Nacional de Desenvolvimento Social - BNDES*) provides for the creation of investment funds to support CDM projects (with returns for investors generated from the sale of CERs).
- (c) BNDES also provides an Environmental Credit Line, designed to support feasibility studies for proposed CDM projects, and meet the costs of preparing PDDs, taking projects through the validation and registration process.

The Brazilian Government has also launched a National Plan on Global Climate Change (NPGCC) (*Plano Nacional sobre Mudança do Clima – PNMC*) through the Interministerial Committee on Climate Change (ICCC) (*Comitê Interministerial sobre Mudança do Clima - CIMC*) which services to reinforce the above financial support mechanisms. These mechanisms improve the ability of CDM project developers to secure the finance necessary to develop and implement CDM projects, but do not impose any obligation to actually implement specific projects or undertake particular activities. There is therefore no risk of these measures undermining the ability of Brazilian CDM projects to satisfy additionality criteria.

Vietnam: investment incentives for CDM projects

Decision No. 130/2007/QĐ-TTg issued by the Vietnamese Prime Minister on 2 August 2007 establishes a number of incentives designed to encourage investment in CDM projects. These do not incorporate any obligation to undertake particular projects or activities, and so will not prevent proposed Vietnamese CDM projects from meeting additionality requirements. The available incentives include:

- fiscal concessions including exemptions from land use rents and levies, and accelerated depreciation;
- access to state investment credit;
- price subsidies for CDM project outputs; and
- priority consumption of CDM project outputs over similar outputs produced by non-CDM activities.



Supplementary CDM Laws that restrict or otherwise impose particular requirements on CDM projects, while not providing direct incentives to implement CDM projects within the relevant Host Country, often provide certainty as to how those projects will be regulated, and the steps that must be taken to implement them successfully. This certainty may increase investor understanding of, and confidence in, the CDM regulatory environment within the Host Country, and reduce perceived risk associated with Host Country regulatory structures and processes. By reducing risk in this way, Supplementary CDM Laws that restrict rather than facilitate the implementation of CDM projects may nonetheless serve to promote CDM investment and activities, and reduce legal barriers to such activities.

Regardless of the motivation for enacting Supplementary CDM Laws, it is important that CDM Host Countries ensure that they are

suitable and appropriate to existing laws and other local circumstances. Approaches adopted by one Host Country will not necessarily be appropriate for another due to different environmental, social, economic and legal circumstances and norms.

Additionality

If the implementation of a particular project or type of project is mandatory under the domestic law of a Host Country, then a proposed CDM project of that type cannot be considered additional, at least for the purposes of demonstrating additionality under the CDM Rules. This is because the project would have been implemented in order to comply with the relevant law, even without registration as a CDM project. The test of whether a project is required to be implemented under applicable domestic law is a key criterion to be satisfied in the demonstration of



Case Study: Landfill gas capture requirements in Mexico

In Mexico, Official Standard NOM-083-SEMARNAT-2003 introduced by the Secretariat of Environment and Natural Resources requires landfill operators to capture GHGs (i.e. methane) emitted from landfills (there is, however, no obligation to flare captured landfill gas). As a result, in order to satisfy additionality, CDM project developers seeking to develop landfill gas capture projects in Mexico have been required to demonstrate that this Official Standard is not mandatory in the municipality in which the proposed project is to be located.

In most instances, the DOE performing the validation of a proposed project will review the applicable requirements at the municipal level, in order to confirm that the Official Standard is in fact not mandatory in the relevant municipality. If the Official Standard is found to be mandatory, then the proposed project will not satisfy additionality requirements and will be ineligible for CDM, since the project would have been presumed to have been implemented in the baseline scenario in compliance to the standard.

International Rule: Additionality

Article 12 of the Kyoto Protocol requires that each CDM project registered by the CDM Executive Board must result in “[r]eductions in emissions that are additional to any that would occur in the absence of the certified project activity”.

Under the CDM Rules, additionality amounts to a requirement that the GHG emissions of a CDM project are additional to (i.e, below) those that would have occurred in a scenario accepted to be the plausible alternative to the implementation of the CDM project.

This alternative scenario may be the business-as-usual case (that is, the continuation of current emission levels in the absence of the CDM project), or it may be some other scenario involving a gradual lowering of emissions intensity. These scenarios must be clearly demonstrated in the Project Design Document (*PDD*).

Additionality is a principal condition for the eligibility of a project under the CDM and a pre-requisite to the validation and registration of a project as a CDM activity. The requirement aims to protect the environmental integrity of the CDM, ensuring that all CERs represent genuine GHG reductions and that the system does not create perverse incentives for GHG “leakage”.

additionality set out in a project’s PDD. If not appropriately structured and implemented, a Host Country’s domestic laws may negatively impact upon its ability to implement CDM projects by making it more difficult to prove that such projects are additional. Specifically, domestic laws that require the implementation of particular projects or activities, such as the installation of energy efficient technologies or other GHG reduction facilities, may effectively preclude the eligibility of such projects for CDM. If such projects are obligatory under domestic law, then the GHG reductions that they would achieve cannot be considered additional to those that would have been achieved without the registration and implementation of the project as a CDM activity.

Avoiding Perverse Incentives: Type E- Domestic Policies and Measures

If the introduction of laws to reduce GHG emissions would prevent the implementation of CDM projects in a Host Country, by making it difficult for proposed CDM projects to satisfy the additionality requirement, then additionality arguably has the potential to generate the following perverse incentives for Host Countries:

- (a) to dissuade Host Countries from enacting laws or policies to support the CDM or otherwise require reductions in GHG emissions, based on concerns that such laws may prevent the satisfaction of additionality; or
- (b) to encourage Host Countries to enact laws or policies mandating activities that increase GHG emission reductions, such that additionality becomes easier to demonstrate.

Exclusion of such policies and regulations when determining additionality means that:

International Rule: classifying domestic policies and measures to avoid perverse incentives under additionality

The CDM Executive Board, recognising these potential perverse incentives under the CDM Rules, adopted at its 16th meeting "clarifications on the treatment of national and/or sectoral policies and regulations in determining a baseline scenario." These clarifications defined four different types of national or sectoral policies, for use when determining the laws and policies applicable to CDM projects and the determination of additionality:

Type E+: existing national and/or sectoral policies or regulations that create policy-driven market distortions which give comparative advantages to more emissions-intensive technologies or fuels over less emissions-intensive technologies or fuels.

Type E-: national and/or sectoral policies or regulations that give positive 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).

Type L-: sectoral mandatory regulations adopted by a local or national public authority motivated by the reduction of negative local environmental externalities and/or energy conservation and which would incidentally also reduce GHG emissions.

Type L+: sectoral mandatory regulations adopted by a local or national public authority motivated by the reduction of negative local environmental externalities and which incidentally prevent the adoption/diffusion of less GHG emitting technology.

In order to avoid any perverse incentive as a result of the CDM's additionality requirement, the CDM Executive Board has ruled that the following types of domestic regulations and policies should not be considered when determining whether a proposed CDM project is additional:

(1) Type E+ policies or regulations introduced after 11 December 1997 (the date the Kyoto Protocol was adopted by the COP); and

(2) Type E- policies or regulations introduced after 11 November 2001 (the date of the COP decision that provided the foundation for the CDM Modalities).

Case Study: Renewable energy policies as Type E- policies in India

Renewable energy in India falls under the jurisdiction of the Ministry of New and Renewable Energy and also under that of the State Government electricity regulatory authorities.

India's Ministry of New and Renewable Energy has implemented a suite of policies designed to encourage renewable energy projects, including tax concessions, a consolidated rate of customs duty, and a waiver of the requirement to obtain clearance from India's Central Electricity Authority for investments of up to 1 billion rupees. The Ministry has issued guidelines that require India's state electricity boards to offer grid feed-in tariffs to solar and wind power producers, and important additional financial incentives are available for biomass/cogeneration and wind power projects. For example, wind power projects can benefit from accelerated capital depreciation.

India's National Electricity Policy promotes private sector participation in renewable energy, targets the reduction in capital costs of renewable energy technology through competition, provides for preferential tariffs, and promotes the benefits of cogeneration. The National Tariff Policy sets out provisions for minimum percentages of electricity to be purchased from renewable energy sources.

These measures increase the cost-competitiveness of renewable energy projects in India, without mandating their development *per se*. As a result, these measures would not preclude Indian renewable energy projects from being registered as CDM projects on the basis of additionality.

- (a) Host Country policies introduced after the Kyoto Protocol that favor more emissions-intensive technologies or fuels cannot be used as a basis for arguing that a proposed CDM project is additional, just because the project utilizes less emissions-intensive technologies or fuels.
- (b) Host Countries policies that are introduced to support the CDM or other projects that reduce GHG emissions will not affect the ability of CDM project developers in those countries to demonstrate that proposed CDM projects are additional, in accordance with the Kyoto Protocol.

In light of the above, it is clearly important to understand the impacts that domestic laws and policies addressing the CDM and other

issues related to GHG reductions may have on additionality. Crafted and implemented appropriately, such laws and policies should not impede the satisfaction of additionality, or the broader implementation of CDM projects within Host Countries. Most importantly, if a Host Country seeks to facilitate CDM implementation as part of its broader domestic policy strategy, then it should not impose any legal requirement that a particular type of project be implemented to fulfill a given domestic legal requirement. For example, a domestic law requiring waste management companies to install landfill gas flaring facilities at landfills would preclude such companies from undertaking landfill gas flaring projects as CDM projects.

International Rule: Programmatic CDM

The CDM Rules do not allow a local, regional or national policy or standard to be registered as a conventional CDM project. However, the actual project activities implemented under such standards or policies are able to be grouped together and registered as a single "Programmatic" CDM project, defined by reference to the standard or policy being implemented (see 7/CMP.1, paragraph 20).

The standard or policy that forms the basis for a Programmatic CDM project is called a "Programme of Activities" (**PoA**), and the individual activities that make up a Programmatic CDM project are called CDM Programme Activities (**CPAs**).

The CDM Rules define a PoA as:

A voluntary coordinated action by a private or public entity which coordinates and implements any policy/measure or stated goal (i.e. incentive schemes and voluntary programmes), which leads to anthropogenic GHG emission reductions or net anthropogenic GHG removals by sinks that are additional to any that would occur in the absence of the PoA, via an unlimited number of CPAs (EB 32, Annex 38, paragraph 1).

Thus, a PoA can include any number of CPAs, and additional CPAs can be added to a PoA at any point during the operation of the PoA, including after registration (which distinguishes PoAs from bundled CDM projects that cannot have additional activities added to them after registration).

The CDM Rules define a CPA as:

A single, or a set of interrelated measure(s), to reduce GHG emissions or result in net anthropogenic GHG removals by sinks, applied within a designated area defined in the baseline methodology (EB 32, Annex 38, page 1).

Programmatic CDM projects are led by the government authority or private entity responsible for introducing and implementing the policy or standard. This entity is known as the 'coordinating or managing entity'.

PoAs are able to be implemented across multiple Host Countries. In such cases, each Host Country in which CPAs will be implemented must provide an LoA for the PoA.

Case Study: Programmatic CDM project in Uganda

Programmatic CDM potentially provides opportunities for governments to adopt new roles in relation to CDM projects. Government agencies are in a position to coordinate projects in-country and to effectively act as project entities. For example, although the World Bank is the main coordinating/ managing entity for the project, the Ugandan National Environmental Management Authority (NEMA) is supporting the development of a municipal waste composting programme as a CDM PoA, under which it will be the Host Country entity named in the LoA. The program will recover and compost organic waste, thereby avoiding methane emissions that would otherwise result from the decay of such waste, and reducing leachate contamination of water resources. This pioneering

Programmatic CDM project, currently under validation, utilizes an International Bank for Reconstruction and Development (IBRD) loan to finance activities in several Ugandan cities and towns, who shall act as CPAs under this PoA.

Each individual participating municipality would constitute a single CPA, and shall provide land for the CPA and install and operate the necessary technology. Each will sign a cooperation agreement with NEMA under which it transfers to NEMA all rights with respect to the GHG reductions achieved by the CPA. NEMA will then manage data in relation to the GHG reductions achieved under each individual CPA, and communicate this information to the IBRD, as the coordinating/managing entity for the PoA. The reductions achieved by each CPA will be verified separately from other CPAs.

If, however, a domestic law or policy does not impose any obligation to implement a particular type of project, but rather provides incentives to encourage the implementation of such projects through fiscal or other financial means, and was introduced after 11 November 2001, then it should not prevent the implementation of such projects as CDM projects.

Examples of different types of domestic laws and policies that Host Countries could introduce to support GHG reduction activities without compromising their eligibility as a CDM activity include:

- feed-in tariffs guaranteeing the purchase of electricity generated from renewable energy at a particular price;
- certificate schemes that enable projects that reduce national GHG emissions to generate and sell certificates to entities such as polluters who are made liable under domestic law to acquire and surrender particular volumes of the certificates;
- "green" or "renewable energy" certificate schemes that would operate in a similar manner as above, but with credits generated on the basis of electric power

produced by particular types of cleaner energy resources.

- tax rebates, accelerated depreciation and other fiscal concessions that reduce the tax liability of projects that reduce GHG emissions; and
- simplified and/or expedited project approval processes that make it quicker, easier and cheaper to obtain the necessary regulatory authorizations.

It is important to note that under the International CDM Rules, even where there is a mandatory law or policy requiring emission reductions in a particular sector, such laws or policies can be legitimately disregarded in setting the business as usual baseline for the CDM project where proper analysis shows that there is widespread non-compliance in a country or region with such mandatory laws and policies.

Domestic Programmes and Policy as CDM Projects: Programmatic CDM

The CDM Rules allow multiple GHG reduction activities (CPAs) implemented pursuant to a policy or program (PoA) to be registered as a single Programmatic CDM project. In this way, Programmatic CDM creates the potential for Non-Annex I Parties (or other coordinating or managing entities) to introduce policies and programmes that facilitate GHG reduction activities, and have these activities grouped together and registered as a CDM project capable of generating CERs. Finance generated from the sale of CERs can then support the implementation of additional activities, helping to increase the effectiveness of the relevant policy or program. Thus, Programmatic CDM can facilitate the successful implementation of national GHG reduction policies, by enabling

the generation of additional revenue to fund policy implementation.

By allowing the CPAs under a PoA to be conducted as a single CDM project, Programmatic CDM could help remove regulatory and transaction cost barriers that would otherwise restrict small-scale CDM activities particularly those implemented in poor communities or in Least Developed Countries. Programmatic CDM is therefore able to generate dual financial benefits for national GHG reduction policies, by enabling both the generation of finance from CER sales, and reductions in the cost of implementation.

5 Domestic Law and the CDM: Impacts and Barriers

Domestic Laws affecting CDM Projects

CDM projects, while being attributed particular characteristics and abilities under the CDM Rules (for example the ability to generate CERs), are nonetheless founded upon conventional underlying projects, outside the CDM context. The implementation of a project as a CDM project represents only one aspect of the broader implementation of the project (albeit a financially determinative aspect, in accordance with additionality).

CDM projects must therefore comply not only with the international CDM Rules and applicable Host Country CDM Laws, but also with all other applicable Host Country laws regulating projects more generally. As a result, barriers to CDM projects under domestic laws may exist not only within the laws acted (or not enacted) specifically for the purposes of the CDM, but also within existing laws regulating the activities and sectors that lend themselves toward potential CDM projects. Types and examples of domestic laws that affect CDM projects are discussed in more detail in chapters 6, 7 and 8.

A broad range of domestic laws can impact upon projects that may be implemented under the CDM. Such laws include those governing:

- the assessment and approval of such projects, for example the various regulatory approvals required for industrial projects, energy projects and other infrastructure projects;
- title to the land on which such projects are developed, including customary or traditional title to land;
- investment in such projects, by both national and foreign entities;
- resources to be exploited in implementing such projects, such as renewable energy

resources, as well as fossil fuels and vegetation;

- securities and financial products;
- corruption and public sector transparency in relation to investment generally;
- employment and labour; and
- the use and trade of project outputs, such as electricity, industrial products and waste.

Removing Domestic Legal Barriers to CDM Projects

As articulated in the introduction to this Guidebook, clear and robust domestic laws can potentially establish regulatory settings that strongly facilitate the implementation of CDM projects. At the same time, existing domestic laws may inadvertently create barriers to implementing such projects. Such barriers may well nullify the benefits of even those laws specifically designed to support CDM project implementation, and, in some cases, prevent their implementation altogether.

This paradox stems from both:

- the peculiarities of the CDM, for example, the need for project developers to be able to distinguish, hold and sell the rights to GHG reductions generated by CDM projects; and
- the nature of the underlying projects that provide vehicles for CDM projects, for example, the need to understand the Host Country legal regime governing foreign investment, and to manage the risks associated with this regime in the context of projects requiring significant capital expenditure and protracted lifetimes.

It is important, therefore, for CDM Host Countries to appreciate the significance of their

existing domestic legal regimes with respect to CDM eligibility and risk profiles. Options for the identification and removal of Host Country domestic legal barriers to CDM projects are outlined below.

Identification of Barriers by Host Country DNAs

As discussed in section 4, above, Host Country DNAs may be mandated to proactively investigate and identify barriers to CDM projects within the relevant Host Country and, where possible, catalyze their removal. This is a long-term process that entails:

- (a) identifying relevant existing domestic laws with the potential to materially impact Host Country CDM processes and/or underlying investment projects;
- (b) assessing the likelihood and magnitude of the impacts of those laws on underlying projects and Host Country CDM processes; and
- (c) formulating solutions and recommendations for the removal of the identified domestic legal barriers.

As entities responsible for assessing and approving proposed CDM projects in accordance with the CDM Rules, DNAs are well positioned to carry out the steps set out above. This could include studying best practices in Host Countries that are perceived to be relatively free of domestic legal barriers to CDM investment and the ways in which they were able to achieve this. It could also include studying the way international investors perceive such legal barriers.

DNAs have an important role to play in facilitating or even spearheading targeted domestic legal reform processes. Any ultimate removal of identified legal barriers may, however, necessitate cooperation with the legislature or equivalent body, in order to enact, amend, or repeal particular laws, since actual legislative functions are not likely to be included within the mandates of DNAs). These processes could also be advanced within the context of broader capacity building and experience-sharing programs undertaken by multiple DNAs, in order to disseminate lessons and propagate good practice between Host Countries and across jurisdictions.

By combining domestic legal reform process with the enactment of dedicated new laws to promote the CDM, Host Countries can create an optimal regulatory environment for the implementation of CDM projects, by removing domestic legal barriers and establishing domestic legal supports, both of which are necessary for a Host Country to fully realize its CDM potential.

Targeted Domestic Law Reform

The enactment of laws by a Host Country to promote CDM within its jurisdiction can extend beyond the enactment of new laws specifically dedicated to the CDM to also include the reform of existing laws. Even relatively minor reforms to existing laws can sometimes remove key legal barriers and constitute novel CDM promotion mechanisms. Some Host Country laws governing foreign investment specify priority sectors given priority treatment and special benefits or concessions that are accounted for by investors when assessing project risks and opportunities. Uganda's *Investment Code Act*, which commenced on 25 January 1991 makes such a provision.



Case Study: Mauritius and the Benefits of Regulatory Capacity Building

As a small island developing state (SIDS) and CDM Host Country with relatively limited potential for mounting many large-scale projects, the Republic of Mauritius quickly recognized the need to establish a robust legal framework to promote foreign investment in GHG Reduction projects and an efficient CDM project approval process. Under the umbrella of the CD4CDM project, a two-year capacity building program implemented by the UNEP Risoe Center (URC) together with the Mauritian Ministry of Environment, a comprehensive Regulation governing the CDM was formulated in record time in comparison to other countries in the region. Over the course of three days, the DNA Secretariat, the Minister of Environment, and URC advisors convened all relevant government stakeholders including the State Law Office around the table to quickly thrash out the content of the regulation. Beyond the process itself, the final regulation adopted—the Environment Protection (Designated National Authority) Regulations of 2009—is one of the most compact yet comprehensive models yet to be adopted in Africa, with a streamlined approval procedure eliminating duplication between the EIA processes and the public participation requirements associated with CDM approval. As such, the case study is an example of both good practice in DNA regulation development and the benefits of more structured CDM capacity building programs that include targeted legal reform and regulatory advisory services.

The relatively recent advent of the CDM often results in the CDM being omitted as a specific priority sector or enterprise in such foreign investment laws, although identified priority sectors could include sectors relevant to the CDM. Amending the list of priority sectors identified in foreign investment laws to specifically include CDM projects would remove potential legal barriers arising from uncertainty on the part of CDM investors as to whether their project would be eligible for unique benefits or given priority treatment.

6 Domestic Law and the CDM: Property Law

Property Laws Relevant to CDM Projects

CDM projects comprise a range of different property assets, each of which may be governed either by general Host Country property law, or specific laws enacted to regulate the asset either independently or in the context of broader domestic regulation of the CDM. The property assets likely to form part of a CDM project include the:

- land on which the project is to be developed;
- equipment, technologies and materials required to construct and operate the project;
- resources and other inputs involved in the project (e.g. water, wind or landfill gas for electricity generation projects, industrial materials to be processed in industrial CDM projects, and fuel and electricity);
- products, materials or other outputs generated by the project, such as electricity, industrial or manufactured products or landfill;
- proprietary security interests in the assets comprising the project, such as mortgages over land or equipment benefitting banks, financiers or other secured creditors; and
- GHG reductions achieved by the project (e.g., the CERs issued by the CDM Executive Board with respect to such reductions, and revenues from their sale.

Legal entitlement to each of these assets will generally be governed by the domestic law of the Host Country, and typically addressed in commercial contracts between the asset owner and other stakeholders. Such contracts may, in turn, be governed by another jurisdiction, for example contracts for the sale and purchase of CERs are often governed by English law.

Significantly, title to each asset may vest in a different entity, resulting in a complex set of property rights and interests in the assets comprising a single CDM project. Domestic laws will also deal with the protection of property rights, including any limitations on the terms and conditions on which property may pass under contract, as well as expropriation or nationalization.

Proprietary Rights to CERs

Domestic property laws that clearly define and adequately protect the property rights of project participants will give project developers and investors confidence that a CDM project can be successfully implemented in a Host Country, and that the project outputs and returns on investment can be secured appropriately.

In many CDM Host Countries domestic legal regimes do not yet encompass intangibles such as GHG reductions, much less CERs specifically. A further complication in such jurisdictions can be dealing with communal ownership of GHG reductions. The evolution of such laws would need to consider issues of recognition of the property in such GHG reductions, how risk, property and title in such GHG reductions could be passed, and how this can be measured. Specifically, there are often gaps with respect to the treatment of, under domestic laws with respect to:

- (a) the status or general classification of GHG reductions and CERs (or other tradable carbon assets);
- (b) the allocation of title to such assets once generated or issued; or
- (c) the contractual transfer of title to such assets.

In accordance with accepted international legal practice, the CDM Rules confine themselves to issues of international law and procedure, and do not address domestic issues related to property assets and rights associated with CDM projects and CERs.

As a result, where a Host Country's domestic legal framework establishing and protecting property rights does not address title issues around CDM projects, then the regulatory treatment of these rights in the Host Country will remain uncertain. While the market has dealt with these uncertainties to date (primarily by representations and warranties under commercial contract), this uncertainty does have the potential to become a source of risk that discourages stakeholders, including prospective investors, from participating in CDM projects in the Host Country, such that the Host Country is less able to realize its CDM potential.

Proprietary Rights to CERs under the International CDM Rules and under Host Country Domestic Law

CERs are internationally tradable units generated and issued in accordance with international law. Under the CDM Rules, each CER represents a reduction in GHGs in the atmosphere equal to one ton of carbon dioxide (therefore known as one ton of carbon dioxide equivalent, or CO_{2-e}). As a result, Annex I Parties can use CERs, and the GHG reductions that underpin them, to comply with their GHG emission reduction targets under the Kyoto Protocol.

CERs are issued by the CDM Executive Board, A unique electronic serial number is ascribed to each and every CER that may then be used to identify:

- (a) its status or type of tradable Kyoto Protocol unit, i.e. whether it is a CER, an Emission Reduction Unit (ERU) from a Joint Implementation project, or another unit, for example an Assigned Amount Unit (AAU);
- (b) the Kyoto Protocol Commitment Period for which the CER was issued (the first Period extends from 2008 to 2012, inclusive);
- (c) the Host Country of the project from which the CER was issued; and
- (d) the CDM project activity itself.

Although the CDM Rules provide for this means of distinguishing individual CERs from each other, they do not explicitly deal with the issue of legal entitlement to CERs, nor the GHG reductions that underpin them. Under international law there is a presumption that the Host Country, as a sovereign nation that has agreed under international law to be bound by the Kyoto Protocol, has a sovereign right to the GHG reductions achieved by CDM projects hosted within its jurisdiction as well as the CERs issued with respect to those reductions. These rights may then, in turn, be transferred by the Host Country to their authorized CDM project participants through the issuance of an LoA. This procedure is discussed below.

Where Host Country law does not specifically address the issue of title to CERs, and there are no other laws, legal principles or precedents to the contrary, then the international legal presumptions outlined above will apply. The courts of the Host Country, in other words, would likely accept the principle that, in the DNA's act of Issuing an LoA which authorizes a Host Country entity to develop and implement a CDM project within its jurisdiction, the Host Country government is implicitly transferring its sovereign rights to the GHG Reductions and associated CERs to that entity named in the LoA

(unless the LoA or other relevant Host Country law states otherwise) and uphold the rights conferred on them.

It should be noted, however, that despite this presumption, prospective project developers may nonetheless remain uncertain of whether they will be able to secure title to the CERs generated by a CDM project. This is particularly so where the nature of the project makes it unclear which party or parties should initially be vested with legal title to the CERs. For example, in a run-of-river hydropower CDM project in which the state owned the water resource constituted by the river, local communities were recognized to have customary title to local water resources. A CDM project developer had simultaneously been granted the planning approvals required to develop the hydropower plant. Each party could thus reasonably seek to claim an interest in the CERs generated by the project, given their respective contributions.

In another example, a geothermal CDM project might be developed under a regulatory regime in which a State-owned oil and gas company is the sole entity authorized to exploit geothermal resources, but also having the authority to enter into joint operation contracts with others, under which those private parties would be appointed to the company to develop and operate projects. In this situation, despite the private sector party's provision of funding and/or involvement in the physical development and operation of the project, it is not entirely clear under the Host Country domestic laws who would have the *prima facie* legal rights to the emission reductions and resulting CERs, since the regulatory framework in place recognizes the State-owned oil and gas company as the exclusive owner of the geothermal resource, with the private party only acting as a "contractor".

Transparent and definitive clarification of which party(ies) will have title to CERs by Host Country regulators in accordance with domestic law can substantially resolve uncertainties that may otherwise preclude CDM projects from being implemented in the Host Country. CDM Host Countries could therefore reduce domestic CDM risks and attract CDM investments by explicitly addressing in LoAs the issue of transfer of legal title to CERs, as for example, is done in South African LoAs. LoAs issued by the South African DNA clarify that the country itself owns all GHG reductions generated by South African CDM projects, and on this basis, it authorizes the project participant named in the LoA:

- (a) to become the private owner of rights, title and interest in and to the GHG reductions achieved by the project; and
- (b) to sell such rights, title and interests.

Other Domestic Property Law Issues

Just as the CDM Rules do not seek to regulate the issue of title to CERs—such that in the absence of domestic laws to the contrary there is a presumption that they vest initially with the entity named in the LoA—the CDM Rules also fall silent on some of the more subtle and potentially contentious issues relevant to property rights associated with CDM projects. Some examples of those that may potentially arise in the course of implementing, and transacting CERs from, a CDM project include:

- (a) rights and title to revenues from the sale of CERs, including where there are multiple entities, including Annex I or other foreign entities, involved in the development and operation of a CDM project;
- (b) rights, conditions or restrictions with respect to the land on which CDM projects are built and operated, including where CDM projects

are built and operated by Annex I or other foreign entities;

- (c) the extent to which individual project participants and other parties can use contracts to allocate title to CERs and other project assets; and
- (d) whether, and under what conditions, some or all CERs or other CDM project assets may be expropriated.

Quite often, these issues are either not well anticipated by project participants or it is initially unclear how they may affect their interests. Where these and other similar issues are specifically addressed and resolved under Host Country domestic law, CDM project participants will enjoy much greater certainty as to their rights to project assets including CERs, and will be better able to protect their rights and interests using contracts and other legal and commercial tools and strategies, rather than resorting to litigation.

The approaches taken by different Host Countries to regulating the above issues, and the risks and benefits these approaches create, are discussed in more detail below.

Rights to Revenue from the Sale of CERs

Although title to CERs generated by a CDM project may vest in the entity named in the Host Country LoA, whether explicitly under Host Country domestic law or by implicit presumption under principles of international law, the entity so named may not enjoy proprietary rights and title with respect to all of the revenue generated from the sale of CERs. Many Host Countries have introduced domestic laws that allocate title to part of the revenue from CER sales to the Host Country, in the form of a Host Country tax or levy.

Host Country Land Rights

Security of land title and related property rights are vital for the successful hosting and implementation of CDM projects. Where uncertainty prevails as to the security of title to the land on which a CDM project is to be developed, or to the resources acting as inputs to or products from the project, then the project risk profile will be increased substantially. In such cases, it will be much more difficult to obtain finance for the project.

The following are key property rights issues relevant to CDM projects and their implementation within Host Countries:

- How has title to the land on which the CDM project is to be developed been secured? Does the project developer own the land, does it have a long-term lease over the land, or is the land sub-leased from another lessor?
- If the project developer does not own the land, do the property rights held by other parties, (e.g. the lessee), confer any rights on such parties with respect to the CDM project or, more particularly, the CERs generated by it?
- Are there any conditions or restrictions on foreign parties owning land or holding other land rights within the Host Country?
- Are rights to GHG reductions and/or CERs generated by a CDM project located on a parcel of land, for example, through a forestry CDM project, included in the rights held by the owner of the land?
- Do any parties hold customary or traditional land rights in respect of the land, and how are these rights to be protected in the course of developing the CDM project, whether through conferring rights to CERs or otherwise?

Case Study: Revenue from the sale of CERs from Vietnamese CDM projects

Decision No. 130/2007/QĐ-TTg issued by the Vietnamese Prime Minister on 2 August 2007 requires parties allocating, receiving or selling CERs from Vietnamese projects to register this allocation, receipt or sale with the Vietnam Environmental Protection Fund, and pay a fee with respect to any CER sale. The fee is calculated by reference to the volume of CERs sold and to pay the CER market price at the time of sale, multiplied by a sector-specific fee rate specified in Inter-Ministerial Circular No. 58/2008/TTLT-BTC-BTN&MT.

This levy effectively entitles the Vietnamese Government to take a share of CER revenues. In this way, domestic Vietnamese law directly regulates property rights with respect to revenue from the sale of CERs issued with respect to Vietnamese CDM projects, by limiting the rights of CER sellers and conferring a right on the Government to be paid the applicable fee.

By specifying different fee rates for different CDM project sectors, the Vietnamese Government is also able to promote the implementation of particular types of CDM projects. The fee regime creates an incentive to implement CDM projects in those sectors subject to a lesser fee rate, while those sectors subject to higher fees are likely to be less attractive to project developers.

Securing Title to the Land for the CDM Project

The means by which a project developer has secured title to the land on which a CDM project is to be developed is one of the key issues that prospective investors and financiers will investigate when conducting due diligence assessments.

Clearly, where a project developer owns the land on which the CDM project will be located, then security of land title will generally be easy to demonstrate, and such title will not be a source of concern or risk for investors. For example, if a waste management company owns and operates landfills on land owned by the company, then there is unlikely to be any

question as to ownership of the required land, should the company choose to implement a CDM project at the landfill site.

The issue of security of land title will not be so easily dealt with where:

- (a) the project developer does not own the land on which the project is to be located; or
- (b) land rights are not adequately protected under Host Country domestic law to allow confidence and certainty as to security of title—even where the project developer does own the relevant land.

In some Host Countries, the state alone owns all lands, such that private parties may only

lease land from the state in order to obtain the necessary land rights. Similar issues of competing title and risks of challenge arise in this context, and may increase the risk and difficulty of implementing a CDM project in the same way as discussed above. If the Host Country legal system affords adequate protection for the land rights of parties leasing land from the state, however, then such arrangements may be more secure and less risky than owning land in a jurisdiction where land rights are relatively poorly protected.

Property Rights of Other Parties, and Impacts on CER Title

If a CDM project developer does not own the land on which the CDM project is to be developed, then the landowner, as a separate party with its own set of interests and concerns, will nonetheless become an important stakeholder in the CDM project. The project developer will need to be able to demonstrate to investors that the landowner has granted it all rights and approvals necessary to develop the CDM project, or that it is otherwise within its rights to proceed with the project as contemplated.

An additional, equally important issue is whether Host Country domestic property law:

- (a) automatically confers on the landowner any rights with respect to the CDM project or CERs generated by it; or
- (b) provides any means through which the landowner can take action to secure such rights.

Similar issues arise where a party other than the project developer owns the physical assets that comprise the CDM project, such as machinery and equipment.

Where Host Country domestic property law confers, or has the potential to confer, competing rights to CERs to a property owner other than the project developer, the project developer may be unable to secure full and indefeasible proprietary rights with respect to all CERs generated. This will potentially make it more difficult to sell the CERs from the project, as the rights of each party will need to be reflected in the sale arrangements, and purchasers generally prefer to buy from a unique seller who can warrant that it has full legal and beneficial title to all the CERs that have been, or will be, generated.

Given that the sale of CERs is itself a key source of revenue and finance for CDM projects, and also often a means of obtaining additional debt or equity finance for a project, obstacles to the sale of CERs may become obstacles to the broader financing and viability of the project.

Restrictions on Foreign Ownership of Property

Countries often impose certain restrictions on foreign ownership of land and other property within its territory. For example, the domestic property law of a CDM Host Country may state that:

- (a) foreign entities are only allowed to own land within specific areas or zones, or where they have obtained particular licenses such as foreign investment licenses;
- (b) foreign entities are not allowed to own land within the Host Country under any circumstances; and/or
- (c) foreign entities are not allowed to own certain types of assets within the Host Country, such as major infrastructure assets, or can do so only under limited circumstances.

Where such restrictions apply, CDM projects will need to be structured in a manner that complies with the applicable restrictions, in order to obtain the necessary approvals and consents. For example, if foreign ownership of Host Country land or assets is prohibited, then the land and project assets would need to be owned by a suitable Host Country entity (see discussion below).

Where Host Country laws prohibit foreign ownership of land, and thus a foreign entity seeking to develop a CDM project is unable to purchase the land on which it wishes to develop a CDM project, a Host Country entity must act as an owner, or at least majority owner, of the necessary land. In this situation, ownership of the CDM project could be structured in the following ways:

- A special purpose company could be incorporated under the law of the Host Country, in which the Host Country entity owns 51% (i.e. a majority) of the issued share capital, and the foreign project developer owns 49%. The special purpose company would then own the land on which the CDM project was to be developed; domestic property laws would be complied with and the foreign project developer would have a degree of ownership and control over the land.
- The Host Country entity and foreign project developer could form an equity joint venture (JV), with the Host Country holding 51% and the foreign project developer 49% of the equity in the JV. The JV could thus act in the same way as a special purpose company in the example above, for the purpose of land ownership.
- Note that each of these alternatives assumes that Host Country domestic property law will characterize an entity that is majority owned and controlled by

a Host Country national entity. Although typically the case, this would need to be confirmed in each instance.

- A Host Country entity could take full (100%) ownership of the land and then enter into a lease with the foreign project developer, enabling the developer to use the land for the purposes of implementing the CDM project. This approach would, however, require the foreign project developer being permitted under Host Country law to enter into such a lease, and depend on the ability of the Host Country legal system to protect the developer's property rights as lessor.

Restrictions on Foreign Ownership of CDM Projects

A key issue in the design and development of a CDM project is whether the project will be wholly owned by a Host Country entity, or whether a foreign participant, i.e., an Annex I entity, may seek to own part or all of the project. Foreign ownership of CDM projects is often strictly regulated in Host Country domestic law, either in the form of specific legislation addressing foreign ownership of CDM projects, or under general law governing foreign ownership of domestic assets.

As with restrictions on ownership of land and other real property, Host Country laws may provide (whether specifically or generally) that CDM projects must be at least majority (if not wholly) owned by a Host Country party, and cannot be subject to the majority ownership or control of a foreign party. China, for example, has enacted a specific CDM Supplementary Law as discussed in section 4.7 stipulating that Chinese CDM projects must be either wholly Chinese-owned, or subject to a Chinese controlling interest (that is to say majority Chinese-owned). The domestic property laws

Case Study: Land ownership and CDM projects in Thailand

Thai domestic property law does not allow foreign parties to own land in Thailand. In practice, however, there are means through which foreign entities may acquire proprietary rights, and even own land, as follows:

- (a) Thai law permits foreign parties to lease immovable property for commercial or industrial purposes. As a result, foreign CDM project developers may lease the land required to develop the contemplated CDM project, in lieu of actually owning it. Commercial leases can continue for up to 50 years under Thai law, meaning that the period of the lease should allow sufficient time to accommodate the full development and implementation of the CDM project, such that the project can complete its crediting period and generate the required returns for investors. Leasing rather than owning the land on which CDM projects are located does, however, create additional risks for project developers and investors, as discussed above.
- (b) Thai law permits Thai companies partly-owned by non-Thai shareholders to own land, provided that:
 - (i) not more than 49% of the shares in the company are owned by foreign parties; and
 - (ii) a numerical majority of the shareholders are Thai persons or companies.

Thus, a foreign CDM project developer could form a special purpose Thai company in order to purchase the land on which a CDM project would be located. The foreign project developer's ownership and control of the land would, however, be limited to a minority stake.

It should be noted that significant penalties apply to Thai parties found to have acquired Thai land as an agent for a foreign person or company. These penalties include a fine of up to Baht 20,000, imprisonment for up to two years, or both.

Foreign parties are permitted under Thai law to enter into joint ventures with Thai parties. Where Thai co-venturers hold 51% or more of the registered shares in the joint venture, it will be characterized as a Thai entity for the purposes of Thai law, and able to own land in Thailand. A JV could therefore be used in the same way as a special purpose Thai company in order to acquire land for a CDM project, as discussed above.

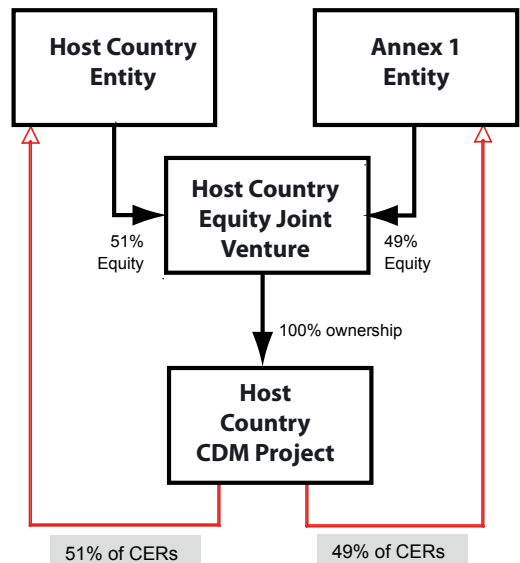
The Thai Board of Investment offers a number of incentives and concessions to approved foreign parties investing in activities sought to be promoted within Thailand, including the ability for approved investors to own land in Thailand. In addition, a number of CDM project types, including renewable energy and waste sector projects, may be eligible for support under Thai investment promotion schemes.

As a result, where a foreign project developer wishes to develop a CDM project eligible for investment support from the Thai Board of Investment, then provided the project is approved, the foreign developer will be eligible to apply for a concession allowing it to own the land on which the CDM project is to be located.



of many other Host Countries establish similar restrictions under their general regulatory framework that apply equally to CDM projects and assets.

Where such laws apply, it may nonetheless be possible for an Annex I entity to part-own a CDM project (although holding less than a majority share in the project). An Annex I entity could, for example, enter into an equity JV with a Host Country entity, in which the Host Country entity held at least 51% of the equity in the venture, and the Annex I entity 49% or less. The CDM project would then be owned by the JV, and the CERs generated by the project would be shared by the Host Country and Annex I JV partners in accordance with their equity shares. This is illustrated below.



Joint ownership of CDM project and CERs using equity joint venture structure



Case Study: Land ownership and CDM forestry projects in Mali

In countries such as the Republic of Mali, which have large potential for forestry CDM projects but are also undergoing land tenure reform, the process of determining final title to the CERs arising from such projects can be particularly complex, for several reasons. Malian forestry and land laws consist of multiple layers. Malian domestic law recognizes customary land rights, as well as customary rights concerning wood exploitation and other entitlements related to forests, in parallel to domestic legislation.

Furthermore, current legislation is under review and a decentralization process is taking place that could strongly affect the way that forestry and natural resources are managed.

Mali's decentralization legislation* establishes "territorial collectivities" (CTs), categorized into regions, circles and communities, vested with legal personality and crucial competences in the area of forest resource management. Although transfer of national resources as well as financial resources is foreseen, the process is yet to be effected; meanwhile CTs are entitled to develop local natural resources management plans prior to such transfer, which is now common practice.

The Government of Mali has established and actively encourages use of a new legal instrument called "conventions locales" for natural resource management. Such legal instruments regulate natural resource use among villages, between villages and communes, or among whole communes, which has as its aim the creation, modification or extension of rights. Thus, certain CDM forestry projects may need to be formalized in the form of a *convention locale*. As a concrete example, a CDM project at the village level would not only require the agreement of the village chief, but also an agreement between the village and the larger commune, which will likely verify that the project is in line with the communal '*Social, Cultural and Economic Development Program*'. The



commune would ask to be consulted in the planning phase and may negotiate to share a percentage of the eventual revenues. Depending on the scope of the project, communes might also need to consult with federal ministries and other state entities such as the Nature Conservation Service.

Under the land law of Mali, all non-matriculated land areas are state owned. Within this category, customary land and usage rights are explicitly recognized and exercised individually or collectively^{**}. The same legislation confers rights to customary or village chiefs, although these are limited to exploitation rights. This means that only exploitation rights can be conferred to third parties.

Usage rights as currently defined in forestry laws extend to physical persons and local collectivities to enable them to satisfy their basic needs, excluding all uses that could lead to a commercial transaction. All commercial exploitation of forest resources goes beyond traditional usage rights and would therefore be subject to taxation (Decret 01-204). A strict interpretation of the law would imply considering the generation of carbon credits as a commercial transaction and as such, outside the scope of land use rights. Furthermore, an exploitation permit, issued by the CTs, would likely be required for carbon credits to be extracted from afforestation or reforestation activities, as they are required for any other type of forest exploitation.

** Loi N. 96-050 portant principes de constitution net de gestion du domaine des Collectivités Territoriales and Loi 95-034/AN-RM of 12 April 1995 on Collectivités Territoriales en Republique de Mali, amended by Loi, n.98-010 of 15 June 1998, amended by loi 98-066 of 30 December 1998.*

*** Ordonnance 00-027 of 22 Mars 2000 portant code domanial et foncier*

Proprietary Rights to GHG Reductions and Removals from Forestry Projects

Section 6 discusses in detail the issue of which party or parties may have proprietary rights to CERs issued with respect to a CDM project. Whether Host Country property law provides (whether explicitly or implicitly) any means by which a party may take proprietary rights with respect to the GHG reductions achieved on a particular parcel of land or by a particular project—separate and distinct from other proprietary rights attached to such land or project—is a separate consideration, however. This issue is of particular significance to forestry CDM projects.

Just as the trees located on a parcel of land may be characterized as a resource that forms part of the land, so the GHG reductions achieved through the sequestration of carbon dioxide in those trees achieved by a forestry CDM project could be construed as the property of the landowner.

If this is the case, then the CERs issued with respect to such GHG reductions should arguably also be the property of the landowner, as they correspond directly to the GHG reductions or removals achieved by a CDM project.

A presumption that title to CERs from forestry projects should accrue to the landowner conflicts with the presumption that title accrues to the entity named in the Host Country LoA (at least to the extent that the landowner is not the party named in the LoA). It may also conflict with any explicit law or regulation enacted by the Host Country to allocate original title to CERs to a party other than the landowner. In addition, carbon buyers generally require that CER sellers also transfer to the purchaser all rights with respect to the GHG reductions underlying those CERs.

In light of the above, Host Country domestic property law will be better able to accommodate forestry CDM projects if it provides a means by which title to the GHG reductions from carbon sequestration in trees can be separated from title to the land on which the trees are located.

In Australia, for example, several state (i.e. provincial-level) legislatures have introduced laws enabling parties to take title specifically to the GHG reductions achieved by forest sinks, and formally register this title with the Government. Registration secures the rights against third party challenge, and enables them to be transferred in the same way as other proprietary rights with respect to land, such as easements and profits *à prendre*. In this way, the proprietary rights with respect to GHG reductions from forest sinks can be separated and sold separately from both the forest itself, and the land on which the forest is located.

Customary Land Title

Many CDM Host Countries recognize traditional or customary land title in addition to domestic property laws enacted by statute, code or other legal device. Customary title to land in Host Countries is often defined by rules and practices observed by traditional landholders that serve to protect interests arising prior to the advent of more formal statutory or other property law regimes. Rights and interests in land arising under the statutory or other regime are generally subject to the rights and interests of customary land title holders, which by nature vary between countries, regions and communities.

Recognition and protection of customary land rights is fundamental to the legal and social systems of the Host Countries in which they arise, and the ability of domestic property

Case Study: Guarantees against expropriation in Mexico

Mexico has enshrined protections against expropriation in its Constitution or broader domestic law.

Article 27 of the Mexican Constitution provides that the state may only expropriate private property for a "public purpose", and in doing so must offer "fair compensation".

Mexico's Law of Expropriation lists the circumstances and public purposes that would justify expropriation of private property. Significantly, raising revenue is explicitly rejected as grounds for expropriation. The law also requires that private parties whose property is to be subject to state expropriation must be given a minimum of 15 days' notice of the expropriation, and provides an automatic right of administrative appeal against an expropriation order. Once effected, the fair market value of the property must be paid to the party subject to the expropriation within one year.

Finally, infringements of constitutional rights can be challenged under Mexican law through an "*amparo* suit". This form of legal action is routinely used in cases of expropriation.

The elaborate system of legal protections enacted in Mexico to protect property rights against, and in the event of, state expropriation greatly enhances the security of private property in Mexico. These protections apply equally to CERs as to any other form of property.

Laws to define and uphold such rights are vital components of Host Country legal systems.

Customary land title can, however, create additional complications and risks for the development of CDM projects in Host Countries that recognize such rights. These include:

- Local and regional variations in customary land title laws and in the requirements for acquiring the land rights may necessitate additional time and expenditure in determining how best to secure the necessary title to a particular parcel of land.
- Ascertaining the customary land title laws applicable to a specific parcel of land, and how those laws interact with other Host Country domestic property laws, may be particularly difficult where such customary laws are not formally recorded, or information with respect to such laws is not readily available.
- Where tribal leaders are seen to have ownership or other interests in such lands, the risk that such leaders may demand payment or a share of CERs generated by a CDM project in return for the use of the land upon which it is situated.
- An increased need to engage directly with local landholders in order to determine

the applicable land laws, and negotiate with such landholders in order to secure the necessary title to land, may further increase the costs associated with structuring a CDM project and resolving land title issues.

- If the relevant land is subject to customary land rights that are not formally recorded, registered, or otherwise difficult to characterize, then it may be more difficult for the developer to enforce her rights in accordance with Host Country domestic law in the event that a competing title claim arises or a developer's land rights are otherwise disputed.

As noted throughout this Guidebook, uncertainty represents a fundamental barrier to the initiation of CDM projects, as it mitigates the ability of prospective developers and investors to identify and manage risks that may bear upon such projects. Each of the examples above has the potential to increase a Host Country's CDM risk profile, and discourage the development of CDM projects in the relevant Host Country.

The CDM and State Expropriation

Just as important as the legal framework governing private property rights is the framework governing the property rights of the state. Although the frequency and fairness with which expropriation or nationalization of property takes place are critical variables in any investment, they take on particular importance in the context of CDM projects.

As noted before, CERs exist only by virtue of an international treaty—a fact which gives national governments broad discretion to regulate the trade and possession of CERs. There is a presumption under international law that, absent any domestic law to the contrary, Host

Countries, having agreed to be legally bound by the Kyoto Protocol, enjoy sovereign rights to the GHG reductions achieved by CDM projects hosted within their jurisdictions, and the CERs issued with respect to those GHG reductions (see section 7).

As a result, certainty that the private property rights of CDM project participants will only be expropriated on just terms (i.e., for a proper purpose and with fair compensation) will mitigate a key risk that may otherwise act as a significant deterrent to development of and investment in CDM projects within a Host Country. The strongest assurance that may be provided to developers and investors is a constitutional guarantee that any expropriation by the state will take place on such terms. Such a guarantee may be supported by clarifying statutes or case law that include mechanisms for protecting private rights in the event of a nationalization, and methodologies for determining appropriate remedies where private property is expropriated.

7 Domestic Law and the CDM: Taxation and Financial Services Regulation

Introduction

Four key issues govern taxation and financial services regulation in the CDM context:

- (a) **Classification.** The issue of whether CERs will be treated locally as a security or a commodity is significant for carbon market participants, because securities often involve higher transaction costs than commodities trading. These costs are primarily due to the more stringent regulatory requirements involved in securities trading as compared to the commodities market, which creates the potential for delays;
- (b) **Foreign exchange controls.** Foreign exchange controls may be applicable to CER transactions in some jurisdictions. It is unclear whether CER trades are subject to foreign exchange controls at all, and if so, at what volume these controls would take effect;
- (c) **Tax treatment.** How CER transactions are taxed is obviously a pivotal issue. Generally these are either levied through direct taxes (i.e. retaining a proportion of CERs already issued), or as a tax on the revenue generated by the sale of CERs or through indirect taxes such as a goods-and-services or value-added tax (VAT); and
- (d) **Restrictions on Foreign Direct Investment (FDI).** Project participants should confirm whether CDM projects would be subject to any restrictions on foreign direct investment. Certain Host Countries may impose restrictions on foreign ownership and/or control of capital investment projects and related assets which may equally apply to a related CDM activity.

The international CDM Rules do not explicitly define the status of CERs as a security or

a commodity. These issues, as well as the more patently domestic questions of foreign exchange controls and taxation, are left to domestic regulation.

The Nature of CERs: Security or Commodity?

While there remains a significant lack of clarity about the exact nature of CERs under financial services regulations, it is likely that CERs in most jurisdictions would be treated as a commodity, and accordingly would not be subject to securities regulations. CER classification in individual jurisdictions may differ however, and this issue needs to be assessed by carbon investors on a country-by-country basis.

Where CERs are treated as commodities, under domestic laws they may be treated as particular types of commodities, depending on the circumstances under which they are created or sold. For example, in cases when a foreign purchaser acquires CERs without being involved in project development, CERs may be treated as "export" commodities, and thus entitled to favorable treatment including exemption from value-added tax.

In response to ongoing uncertainty around the treatment of CERs, some buyers have chosen to include provisions in CER purchase contracts stipulating that they will not be held liable for potential taxes or increased costs due to future compliance obligations related to securities regulation. Alternatively, some buyers have assumed that such costs will be applied, and have adjusted the purchase prices accordingly.

CDM Host Countries, particularly newer entrants in the carbon market, are advised to examine this issue. Removing ambiguity surrounding domestic classification of carbon

credits in securities and commodities law should be a clear focal point for regulatory enhancement, as such uncertainty has purportedly made it difficult for project developers in some countries to obtain project finance from banks and financial institutions, as revenues are viewed as less secure.

Foreign Exchange Controls

In most CDM transactions, payments for CERs sold to an Annex I party will be made in currencies other than the Host Country local currency. Whether such CER transactions would be subject to foreign exchange controls is, however, a highly jurisdiction-specific issue. In general, the treatment of CER transactions aligns with general foreign exchange control provisions in local law. In some jurisdictions, foreign exchange controls have been eliminated altogether, while in others, strict limitations still apply. Even where general foreign exchange controls are not in place, parties wishing to bring in or expatriate currency for CER transactions may need to declare this with customs authorities.

Emission Reduction Purchase Agreements (**ERPAs**) will typically stipulate that payments are to be made in a specified currency; in many cases the currency selected will be the Euro. However, to the extent that a CER transaction incorporates a degree of currency exchange risk, it would be possible to allocate this risk in the ERPA to one or other party. Parties may choose to agree on and fix an exchange rate for the purposes of the transaction, or agree to a mechanism for determining the exchange rate to apply for payments.

Even where there are no foreign exchange controls *per se*, one of the risks inherent in all CDM transactions is the foreign exchange

risk that comes into effect if the project entity defaults in delivery of the credits and has to purchase in the international market to make good on its obligations. Ordinarily, this risk would be borne by the seller.

Restrictions on Foreign Direct Investment

Many Host Countries impose restrictions on FDI in major projects. However, these restrictions are not uniform: while there are strict prohibitions on certain investment categories (particularly where the project does not accord with the country's national interests), in other areas, where a project can import significant benefits for the country, FDI restrictions are generally less strict.

Often, the principles governing whether certain investment falls into an encouraged or restricted category align with the principles governing the CDM itself, (e.g., their contribution to Host Country sustainable development, environmental impacts, etc.) Projects typically encouraged are often those that provide significant employment opportunities, increase land productivity or facilitate the exploitation of natural resources, including minerals, forests or aquatic areas, improve the technical skills of employed workers, accelerate the development of less developed regions or increase the volume and value of exports.

Whether FDI restrictions apply to certain investments may also depend on the nature of the infrastructure sought to be built by a company in which foreign capital has been invested. Projects in high-technology fields or using new technology, in under-developed sectors, in sectors of high market demand or that utilize renewable resources in a beneficial manner. In some Host Countries, investments

in these 'encouraged' categories are entitled to enjoy benefits such as streamlined approvals procedures, more favorable tax treatment, expansions in the scope of their business activities, and other advantages.

In some countries, certain categories of investment which are permitted to companies with majority domestic ownership are prohibited altogether to majority foreign-owned companies. In some cases this arises from constitutional provisions reserving natural resources for the state, for management on trust for the nationals of that state. For example, some countries may prohibit foreign-owned companies from participating in certain sectors, such as agriculture and forestry, even where projects are proposed to be conducted under the CDM. Domestic companies, on the other hand, would be free to invest in these activities.

FDI laws often also attempt to direct foreign investment into a particular region or province which is targeted for development or which is lagging behind other regions in terms of investment volumes.

Foreign investment controls may also have the practical effect of restricting the range of corporate structures that may be adopted for CDM projects. In China, for example, foreign investors seeking to enter the CDM market may only do so under an equity joint venture in which a maximum stake of 49% is foreign-owned. Wholly-owned foreign enterprises and contractual joint ventures are not permitted.

CER Pricing Controls

The international CDM Rules do not prohibit Host Countries from setting minimum (floor) prices for the sale of CERs, or from withholding

approval (i.e. LoA issuance) of a proposed CDM project if the CERs from the project are sought to be sold for less than the applicable floor price. The effect of this regulation is to prevent project participants from adopting certain project structuring models, because such arrangements would fall foul of the pricing rules. For example, if a CER buyer sought to provide technical or consultancy services in exchange for a lower CER price, this kind of pricing regulation may prevent a reduction adequate to recoup the value of those services.

In China, for example, if a CER sale and purchase agreement has been entered into when a Chinese LoA is sought prior to registration, then the Chinese DNA must approve the price paid per CER in that agreement. Although the Chinese CDM regulations do not specify a particular minimum price, in its implementation of the CDM Measures, the Chinese Government has effectively set a "minimum floor price" for the sale of CERs in China. The Chinese Government has stated that, when conducting its mandatory review of the terms of CER sale agreements, it will not approve CDM projects with a CER price lower than the floor price set at that time.

Taxation Treatment

A number of different types of taxes may potentially be imposed on CDM projects and revenues:

- taxation of CER revenues;
- taxation of business activities, including through business and personal income tax; and
- taxation of assets, including the land on which CDM projects are developed.

In some jurisdictions, preferential tax treatment

Case Study: Foreign exchange regulations

Argentina:

Following the financial crisis of 2001, Argentina put in place very complex exchange control regulations, which have imposed restrictions on the flow of funds into and out of Argentina. Among other things, these exchange control regulations provide that financing which does not comply with certain requirements relating to, for example, terms of re-payment, might be subject to a mandatory 1-year interest free withholding of 30%. There are few exceptions to this withholding.

This regulation can potentially impose additional costs on, and barriers to, carbon financing in Argentina. There are informal initiatives to exempt financing for CDM projects from these exchange control regulations.

China:

Strict management of the exchange of RMB and foreign currency is enforced in China, and CDM project participants must ensure that they carefully comply with these regulations. A foreign-invested enterprise is required to submit a copy of its certificate of approval and its business license to the Bureau of Foreign Currency Exchange Administration in order to register a record of a foreign exchange and open an account in a designated foreign exchange bank. Separate approval is required from the local office of the Bureau in order to open an account at a different location or abroad.

Entities within China that require foreign exchange under a current account must buy it with RMB from a designated foreign exchange bank, or pay through their foreign exchange account held at the designated bank. Advance payments or commissions can be converted into foreign currency at a designated bank on approval of authenticity by the Bureau.

Foreign exchange income under a current capital account must be transferred back to China and kept in a foreign exchange account at a designated bank. Approval from the Bureau is required if the foreign currency is to be sold to a designated bank or additional foreign currency is to be purchased.

Contracts to procure foreign debt must also be registered with the Government in China. Accumulated medium- and long-term debt procured in foreign capital directly from banks or enterprises outside Chinese territory must not exceed the difference between the total investment and the registered capital stipulated in the contract with the foreign financier. A copy of the contract must be kept with the Bureau.

Entities with foreign capital must also inform the Bureau of when and how the capital is actually used.

Finally, foreign-invested entities are required to submit reports on their foreign exchange balance twice a year (before 10 March and 10 July).



is available to foreign-funded enterprises or for projects in certain encouraged project categories. This preferential treatment may take the form of discounts or rebates on standard tax rates, exemptions, offsets and reinvestment incentives. Some countries provide preferential tax treatment to CDM projects, and particularly projects with additional sustainability benefits, such as renewable energy.

Taxation of CER Revenues

As a matter of policy, some CDM Host Countries have declared that CER revenues will not be taxed at a domestic level while the CDM is still in its infancy. Mitigating or exempting CER revenues from taxation is a powerful means of promoting CDM projects and encouraging private sector investment. It can, however, be difficult to isolate such revenues

from others, complicating the provision of taxation incentives to CDM projects.

Where taxation is imposed on CERs, it may take one of two forms – either the withholding of a proportion of CERs issued to project participants by the CDM Executive Board, or a tax on the revenues generated by the sale of CERs after issuance.

The sale or transfer of CERs must be reported to the Ministry of Natural Resources and Environment and the Vietnam Environmental Protection Fund. Sales fees must be fully paid before the transfer of CERs. CER sales fees are remitted to the Vietnam Environmental Protection Fund and may be used to cover fee collection expenses; expenses in support of raising public awareness on climate change and CDM; and expenses related to consideration and approval of CDM project documents and supervision of the execution of CDM projects.

The revenue derived from a domestic tax on CERs may be used to fund sustainable development initiatives to further promote this core objective of the CDM. By using revenues in this way, a Host Country is able to confirm that a project will meet sustainable development goals even where projects do not have substantial sustainable development benefits. The use of a proportion of CER revenues to fund these activities is similar to the idea behind the Share of Proceeds for Adaptation, which (as discussed above) is designed to use the proceeds of CER sales to assist vulnerable countries adapt to the effects of climate change.

Taxation of Business Activities and Income

CER revenues may effectively be subject to taxation where they are viewed as general business income or profits. Whether or not CERs are viewed as a business asset and any income generated from the sale of CERs treated as business income may be influenced by whether CERs are part of the “normal business” of the project developer and whether such assets are reported by their owner as business assets or trading stock.

Where a personal income tax is levied, project developers that are not resident in the CDM Host Country may be subject to withholding tax at the non-resident rate, which may be higher than the tax rate applied to residents.

By contrast, where business income is generated in a foreign currency, this may allow an exemption from business income for company revenue streams. Project developers would need to seek jurisdiction-specific advice on these issues.

It is possible that the revenue stream generated from the sale of CERs could be treated as a capital receipt subject to capital gains tax, and certain transactions, activities and products may also be subject to stamp duty or value-added tax (VAT). VAT is payable in many jurisdictions on sales of intangible assets including CERs, where they are defined as such. The appropriate VAT rate to be applied will in some cases be dependent on an interpretation of whether the CERs are being exported—particularly if they are wholly owned by a non-Host Country entity, or whether they are being locally supplied by a Host Country project developer to a non-Host Country entity.

Many taxation regimes permit business to seek determinations from taxation authorities on their potential liabilities. This could be particularly useful in the context of CDM project development, the treatment of which in many countries remains subject to uncertainty.

In addition, stamp duty will be payable for CDM projects in most Host Countries. For example, in Malaysia, stamp duty – imposed on instruments of transfer rather than on transactions – is payable for ERPAs. In relation to the conveyance of sale of CERs, ad valorem stamp duty of 1% of the consideration on the first RM100,000, 2% on the subsequent RM400,000 and 3% on the remainder may be payable.

Taxation of Assets

Land, vehicles and resources involved in CDM transactions may also be separately taxed or subject to duties. The amount of the tax may vary depending on whether the owner is a resident or non-resident, whether the land is in a rural or urban area, and the nature of the project. Tax concessions are less common in

Case Study: CDM tax incentives in South Africa

South Africa is one of many countries in the process of implementing a variety of environmental fiscal reforms aimed at supporting initiatives which promote sustainable development, energy efficiency and investments in new or cleaner technologies. Among these reform proposals include more favorable tax treatment of income derived from the sale of CERs as a means to facilitate the hosting of CDM projects. Noting that uncertainty with regard to the South African income tax treatment of CERs may have contributed to the slower than anticipated up-take of CDM projects, the Finance Minister's national budget speech of February 2009 proposed that income derived from the disposal of primary CERs be tax-exempt or subject to capital gains tax instead of normal income tax; and, that secondary CERs be classified as trading stock, and taxed accordingly.

On 1 June 2009 the draft Taxation Laws Amendment Bill was released for comment by the National Treasury, along with a Draft Explanatory Memorandum. The Memorandum indicates that, from a tax perspective, the disposal of CERs is largely untested in South Africa and that the default interpretation, namely to treat disposal of CERs as ordinary revenues from trading stock, is likely to result in taxation of CERs at full ordinary rates thus potentially adding a prohibitive cost onto otherwise marginal CDM projects. Consequently, as part of South Africa's domestic policy response to climate change, tax relief is required to assist in dealing with this issue.

Income Tax Treatment of CERs: The Bill proposes to amend the Income Tax Act (1962) to provide for an income tax incentive for the disposal of CERs from registered CDM projects in South Africa. The proposal is for such CERs to be wholly exempt from income tax which, if accepted, has the potential to increase a project's bottom line by some 28% (at current rates of corporate taxation).

Value Added Tax (VAT) Treatment of CERs: The Memorandum further clarified the treatment of CERs under South African tax law by noting that a CER should fall under the classification of a "right," "facility" or "advantage" rather than a "good". For the purposes of VAT treatment, supply of CERs shall thus be considered as provision of a "service". Since the documentary requirements for the supply of services are less stringent than for the supply of goods, this would represent a *de facto* advantage to CDM project participants in South Africa. Based on the assumption that all CERs generated in South Africa will be exported for use by Annex I countries or entities, the Memorandum indicates that the supply of CERs by persons operating CDM projects will, by default, be exempted from VAT in terms of normal South African VAT rules.

Source: Warburton Attorneys

Case Study: Examples of taxation of CER revenues

Vietnam: Taxation of CER revenues

The taxation of CER revenues in Vietnam is set out in guidelines in a joint circular of the Vietnamese Ministry of Finance and Ministry of Natural Resources and Environment. CER revenues in Vietnam are taxed as a percentage of the total number of CERs sold or transferred at the CER selling price according to a sale fee rate which ranges from 1.2% to 2% depending on the type of project undertaken. For example, forestry projects and renewable energy projects attract a fee rate of 1.2%, whereas recovery of methane from landfill will attract a fee rate of 1.5%, and recovery and use of associated gas from oil fields will attract a fee rate of 2%.

The guidelines provide that where CERs are not sold but transferred, the selling price for the purpose of determining the sales fee will be the market price at the time of fee payment.

relation to assets than in relation to other forms of taxation, although assets uniquely acquired for the purpose of implementing a CDM project may be eligible for tax concessions in some jurisdictions.

Similarly, import duties will usually be contingent on the nature of the good imported and the country or region from where it has come. This can be an important consideration in relation to equipment manufactured outside of the country of the CDM project in which it will be used.

Tax Concessions and Other Fiscal Incentives to Promote CDM Projects

Many Host Countries have formulated taxation policies and legal provisions in relation to CERs that seek to encourage investment in CDM projects and to ensure their competitiveness in the international market. Taxation concessions and fiscal incentives aimed at promoting CDM projects may take various forms. Often,

tax concessions in this area aim at stimulating investment in new projects; thus, they may only apply to new projects or for a limited time period. A project is likely to attract tax concessions and other fiscal incentives where it is classified as an encouraged or promoted investment project within the Host Country. Common tax or fiscal incentives include: import duty exemptions or reductions; income tax exemptions or reductions; and accelerated depreciation.

In a number of countries, CDM projects are classified as encouraged investment projects, or fall within fields or industries which the state seeks to promote or protect, both of which generally imply tax concessions or other fiscal incentives. For example, enterprises operating within the environmental field in Vietnam enjoy various incentives. As of 1 January 2009, when Vietnam's new Enterprise Income Tax Law took effect, such enterprises enjoy a four year enterprise income tax (EIT) exemption, a subsequent five-year 50% tax reduction, and a 10% tax reduction for the whole operation period.

Case Study: Taxing for sustainable development in China

Taxation of CER revenues for sustainable development may take different forms in different Host Countries. In China, for example, the Government taxes CER revenue in varying amounts depending on the sustainable development benefits of the particular project. In the case of projects that do not have substantial sustainable development benefits, taxes of up to 65% are imposed on projects such as destruction of HFCs and N₂O in industrial processes, and the revenue generated is placed in a fund used to promote sustainable development (called the Clean Development Fund). By contrast, for priority sustainable development projects (such as renewable energy) and forestry projects, the tax imposed is just 2%.

The proposed uses of the taxation revenue include funding CDM administration and approval revenues, climate change-related capacity-building activities, sponsoring of the preparation of project design documents for projects located in poor regions or with high sustainable development contributions.

Case Study: Value-Added Tax

Thailand: VAT requirements

Thai regulations concerning taxation of CERs continue to evolve. Although CERs may be exempted from VAT requirements in the future, as new incentives for the promotion of carbon trading and the CDM are developed, under current tax policies, however, the sale of CERs is subject to VAT. This is regardless of whether the underlying project falls under the Board of Investment of Thailand (BOI) tax privileges scheme for promoted activities, because the transfer or sale of CERs is treated as a sale of goods in Thailand. Thus, only income from the underlying project is exempted from VAT according to this scheme, not income from any goods sold or transferred.

The VAT rate applicable to CERs is 7%. If the transfer or sale of CERs is at no or little cost, then a market price for the CERs will be considered for the purpose of calculating the VAT.

India: Classification of CERs as goods

The regulation of CERs in some Host Countries is still in the early stages of development. In India, for example, indirect tax legislation does not provide specific guidelines for the VAT treatment of CERs. CERs may be considered to be goods for VAT purposes in India, and so be treated similarly to electricity – which is either excluded from the purview of VAT or included in the schedule of goods exempted from VAT.

Tax exemptions for an initial and limited period are a common form of incentive provided to CDM project investments. Thailand, for example, has an eight-year exemption on corporate income tax which runs from the date on which income is first earned, with permission to carry forward losses and deduct them as expenses for up to five years. This is combined with exemptions from withholding tax on taxable income and dividends derived from promoted enterprises during the corporate income tax exemption period. Other incentives applying for an initial and limited period in Thailand include import duty exemptions on machinery for up to eight years. There are also import duty reductions on imported raw materials and components.

A number of states have similar tax provisions providing incentives for varying periods of time. In Malaysia, for example, whilst there are no CDM specific laws designed to facilitate CDM activities, there is a tax exemption which applies for income received in respect of the sale of CERs with effect from the year of assessment 2008 and up until the year of assessment 2010.

In many countries, accelerated depreciation will constitute another key element of tax and fiscal incentives, either applying specifically to CDM projects or having a more general application. In Bangladesh, for example, accelerated depreciation is available for the cost of machinery of a new industrial undertaking in the first year of commercial production at 50%, 30% in the second year, and 20% in the third year; and for income derived from any small and medium enterprise engaged in the production of goods and having a certain annual turnover.

8 Domestic Law and the CDM: Environmental Law

In most Host Countries, major infrastructure projects are subject to an environmental and planning approvals process, which is often entirely separate from CDM-specific environmental approvals provided for by the international rules. Environmental and planning regulations are important to the CDM project cycle because the domestic processes for environmental assessment and approval can either help or hinder CDM investment depending on the difficulty and length of the permitting process.

The international rules impose environmental assessment obligations on project developers at the validation stage of the CDM project cycle. In order to have a project validated and obtain registration as a CDM project, it is necessary to obtain approval from the Host Country DNA (in the form of an LoA). As part of the DNA approval process, Host Countries must consider the domestic and transboundary environmental and sustainability impacts of the proposed project activity. Information on these impacts is contained in the CDM Project Design Document (PDD).

The CDM PDD, which must be completed for all projects, contains an Environmental Impacts section in which project participants are required to describe the environmental impact of the project activity to the location and surrounding area. If the impact is considered significant by either the project participant or the Host Country, a full environmental impact assessment is required. Once the project is validated by the DOE and Host Country approval is obtained, the project proposal is forwarded to the Executive Board for formal registration.

Under the international CDM rules, a Host Country is free to decide the content of the domestic environmental impact assessment

and how it is to be applied to the CDM project approvals process. Most Host Countries treat CDM projects in the same way as other infrastructure projects for the purposes of environmental assessments. However, interplay between the international system and domestic law is important. Unlike other projects, CDM projects must go through lengthy international CDM approvals, so it may be advantageous for the Host Country to coordinate the timing of these two processes, as was decided in the case of Mauritius (see Section 5).

Domestic Environmental Laws

The domestic environmental law regime in CDM Host Countries governs three main areas:

- (a) The content and application of the environmental impact assessment, where project participants are required to complete this under the international rules;
- (b) Any environmental approvals that are required to carry out the project activity, including licenses, operating permits, planning permits and any others; and
- (c) Any environmental regulations or restrictions that are imposed on projects conducted within the Host Country, such as pollution restriction, obligations to maintain biodiversity or natural habitat, and so on.

Environmental Impact Assessments (EIAs)

As noted above, Host Countries are free to determine the content of environmental assessments required for CDM project approval. Host Countries can also determine the types of projects that must undertake an EIA and the environmental impacts that are considered

sufficiently 'significant' to trigger a mandatory EIA.

EIAs are often required for projects in a number of categories, including industry, mining, thermal power plants, river valleys, ports, harbors, airports, communications, atomic energy, transport and tourism. Some Host Countries have also imposed a requirement that EIAs be conducted for any project type involving investment at a certain level.

EIAs must usually identify the project sponsor and the entity preparing the EIA, and provide:

- a description of the project;
- a description of any applicable laws and land-use regulations;
- a description of the affected environment, including base environmental conditions and potentially affected area;
- an evaluation of environmental impacts, including waste generation, power and water consumption, social and health impacts, pollution impacts (air, noise, water, land)
- an evaluation of alternatives to the project activity;
- a plan for preventing and mitigating environmental impacts, including a disaster management plan; and
- methodological and technical data to support all conclusions.

In some countries, different categories of EIAs (with different degrees of rigor required) must be completed depending on the likely environmental impacts of the project. For example, project activities involving industrial parks, aquaculture facilities, nuclear facilities, dams, highways and railways and other projects with multiple and cumulative environmental effects, or projects that may destroy or isolate ecosystems or have other large-scale environmental impacts, may require a full-scale

EIA that assesses the likely impacts across the entire region or ecosystem. For projects with a smaller anticipated environmental footprint, EIAs may be limited to the project boundaries and immediately surrounding area.

Environmental assessment can be a major hurdle to CDM project implementation. Some project developers therefore intentionally seek out projects that do not require EIAs as a way to minimize transaction costs and administrative burdens. However, even where Host Country regulations do not require a full EIA to be completed in respect of a project, a process of public consultation may still be required. If significant controversy surrounds the project, the public consultation can be a hurdle; in many cases, however, consultation can be satisfactorily complete in a short time, even within just one meeting.

When a developer has to complete an EIA for a CDM project, it can be an onerous process and an additional source of risk for investors. The EIA process may take up to 18 months, or even longer in some cases. Where EIA approval is required before the Host Country CDM approvals process can even begin, this adds further months to the already drawn-out project cycle.

While the application for an EIA is free in many countries, the process of developing the application can be quite costly. A developer must hire paid consultants, who will conduct scientific studies on the environmental impacts of the project as well as respond to public comments on the project.

Environmental Approvals

In addition to the environmental impact assessment process required for approval as a CDM project, most Host Countries will have

some additional environmental approvals that project developers will need to obtain in order to construct and operate a major infrastructure project. There may be several approvals that need to be obtained for a single project, and the time to obtain these and the cost involved in applying may be a significant hurdle.

Environmental permits and approvals are often required for each stage of project development – for example, a preliminary permit may be required to undertake feasibility studies in an area, a construction or installation permit may be required to build the project, and an operations permit may be required to begin operation of the facility. In addition, multiple permits can sometimes be required for the same project development stage and in many cases these will be issued by different government agencies or by different levels of government. In granting these approvals, authorities in Host Countries may impose a series of conditions requiring project developers to minimize environmental harms. Obtaining environmental licenses may also require a separate environmental impact assessment to be undertaken. To the extent that this is streamlined with the EIA required for CDM approval, this may reduce the burden on project developers at the feasibility and conception stage (see the example of Mauritius, above).

Difficulties can arise for project developers where there are excessive delays in obtaining one or more approvals or permits from Host Country authorities. The preparation and approval of the EIA itself can represent a major delay for certain projects (usually those likely to cause *per se* harms to the environment, such as major roads, railways, ports, chemical, oil or mining projects, airports and industrial complexes. .

Furthermore, some countries may require that environmental permits and approvals be renewed annually, creating an additional administrative burden for project participants. For small or less-experienced project developers, keeping up-to-date with these requirements may be difficult to manage.

In some Host Countries, the number and type of environmental permits and approvals required will depend on the form of pollution that is anticipated to be generated by the project. For example:

- *Air pollution permits* may be required if the project will generate atmospheric emissions (such as from chemicals, petroleum, petrochemicals, paints and dyes, automotive, pulp and paper, metallurgy, glass, electricity generation, asbestos, cement and lime or waste disposal). Such permits may be required even where the project in question is intended to reduce the atmospheric emissions from an existing facility.
- *Water pollution permits* may be required where a project seeks to discharge effluent into waterways, including rivers, drains and sewage systems.
- *Hazardous materials permits* may be required for projects seeking to transport, store, handle or dispose of hazardous wastes. It should be noted that cross-border transportation of hazardous wastes will also be subject to the *Basel Convention on Cross-Border Transportation of Hazardous Wastes*.
- *Forestry permits* may be required for exploitation of forests and the establishment of commercial plantations.

Whether an operational license is required in a particular country may also depend on

Case Study: Environmental Approvals in Brazil

Environmental approvals are required at each stage of project development in Brazil. DNA project approval requires licenses to be obtained. In order to undertake a project, a preliminary permit, an installation permit, and an operation permit must be obtained. The function of each is as follows:

Preliminary permit: required to undertake an initial feasibility study of the intended location – usually issued within 20 to 40 days.

Installation permit: required to begin construction of the facility – usually issued within 30 to 90 days.

Operations permit: required to operate the business, after completion of a satisfactory inspection of the facility from the environmental agency to ensure the terms and conditions of the approvals are being complied with – usually issued within 30 to 60 days.

An environmental impact statement is required for infrastructure that is likely to harm the environment. This may take between 8 and 18 months to approve, depending on the outcome of stakeholder consultation and other factors.

The environmental licensing process in Brazil is regulated by federal, state, and municipal laws. The competent authority to issue an environmental license is determined according to the environmental impact generated by a project – for example, if an activity has a purely local impact, the Municipal Authority may be in charge of the licensing process. Uncertainty may arise in determining the agency responsible for issuing licenses as this is not always evident. In some cities with a larger industrial presence, legislation may require a municipal license for the operation of industrial facilities and landfills, notwithstanding the fact that the state's environmental agency also requires the activity to be submitted to the state's licensing process.

Brazil's licensing process, like that of many Host Countries, may be both timely and costly, particularly when an EIA is required. It is important to assess whether the expected volume of emission reductions from a certain project may be impacted by delays in license processing, in particular by the time of execution of the ERPA, as the agreement should include provisions which protect investors from loss related to delay of the licensing process or possible non-delivery.



the industry sector of the project, since the environmental impacts of certain sectors are assumed to be greater than other sectors. The following sectors are commonly listed in Host Country environmental regulations as requiring specific environmental approvals:

- hydraulic works, communication, oil and gas pipelines, coal ducts and "polyducts";
- oil, petrochemical, chemical, iron and steel, paper, sugar, cement and electric industries;
- mining activities;
- hazardous/radioactive waste facilities;
- forestry use in tropical forests and forest plantations;
- changes of soil use in forests, including arid zones and tropical forests;
- real estate developments affecting coastal ecosystems;
- works in wetlands, mangroves, lagoons, rivers, lakes, estuaries connected to the sea and their shores;
- works in protected natural areas;

- fishing, aquaculture or fish farming that could endanger fish species or harm ecosystems; and
- works that could cause serious or irreparable harm to ecosystems or public health.

Liability for Environmental Harms

With most CDM projects, there is a risk that project participants could be held liable under domestic law for any environmental harms arising from the project activity. Depending on their actual level of involvement in the operation of a project, this risk extends both to a foreign buyer as well as to a local project owner/operator.

In general, a project participant may be held liable for environmental harms in the event that the CDM project itself causes damage to the environment (for example, if methane capture pipes rupture and contaminate a large

tract of agricultural land). In order to hold any project participant liable in this circumstance, it would be necessary to demonstrate causality – that is, that the environmental damage was directly caused by the project activity and not some other factor – and also that the project participant was directly involved in causing the harm. It is unlikely that a foreign buyer, who has no involvement in a project other than the offtake of CERs, would be held to have had sufficient involvement in causing the harm for liability to attach under domestic law, although this is ultimately an issue that needs to be assessed on a project by project basis.

To minimize risks, prospective project participants should always perform a thorough due diligence of the project to assess the current condition of the site and assess any potential for future liability. In some countries, the DNA will in fact require all project participants (both domestic and foreign) to sign a statement that the project activity complies with applicable local labour and environmental standards, which will require a certain level of due diligence to be undertaken. The signing of this statement will be a condition precedent for the issue of a Host Country LoA.

The risk of environmental liabilities can be dealt with contractually in an ERPA by means of an indemnity clause, in which a seller indemnifies the buyer with respect to “the development and operation of the Project”. An indemnity drafted in this way should be broad enough to cover situations where a buyer as project participant is somehow implicated in liability of the project under domestic law - most likely because it has had some actual involvement in the project, rather than merely because it is listed under the international rules as a project participant. If desired, the indemnity clause could exclude liability for environmental harms more specifically.

In addition, the ERPA could contain warranties as to the condition of the site, the manner of operation of the project and the accuracy of any statement signed by the project participants guaranteeing the environmentally soundness of the project activity.

The ERPA could also require that the project entity maintain insurances adequate to the project activity and the assessed level of risk associated with it. Such insurances could cover third party liabilities posed by the project itself, including specific environmental damage risks, together with risks posed to the project itself, including by natural disasters, electricity failures, disease outbreaks or civil unrest. Such risks can also be managed by including appropriately drafted force majeure clauses in the ERPA.

Project participants should also be aware of the requirements of the Annex I country granting approval and the implications of any statements made to that country's DNA. In the UK, for example, project participants are required to sign a statement confirming the accuracy of the PDD and the compliance of the project with local environmental standards. The consequences for making a false declaration are severe, and may include fines or even imprisonment. Where such a declaration is required to be made, project participants (even CER off-takers) should conduct a due diligence of the project, regardless of their assessment of their likely liability under Host Country domestic law.

9 CDM Project Risks and Risk Management

Domestic CDM Project Risks

The development and implementation of a CDM project involves a number of complex processes that must be completed in order to have the project registered by the CDM Executive Board, and CERs issued in respect of the GHG reductions achieved. Host Countries are directly involved in several aspects of the CDM project cycle, and also regulate the day-to-day operation of CDM projects and the broader projects and operations of which they form part (e.g. a cement factory at which a waste heat recovery CDM project is located).

As result, project developers face a number of Host Country domestic CDM project risks when seeking to develop a CDM project. These risks vary between Host Countries and also between CDM project sectors. Examples of the key Host Country domestic CDM project risks that must be considered by project developers include:

- (a) With respect to issuance of LoAs:
 - the criteria and procedures for issuance of LoAs may be uncertain or unclear, creating doubt as to whether a potential CDM project will be approved by a Host Country;
 - the application for a Host Country LoA may be rejected by the Host Country DNA, such that either the application for an LoA must be revised and re-submitted, potentially at additional cost, or the project cannot be registered; and
 - a Host Country LoA may be revoked prior to registration of the project, such that either a new LoA must be sought, potentially at additional cost, or the project cannot be registered.
- (b) The project may not be able to satisfy additionality requirements as a result of the project being required to be developed as a matter of compliance with Host Country law, such that it cannot be considered additional and therefore cannot be registered.
- (c) The Host Country, as a Kyoto Protocol Party involved in the project, is entitled under the CDM Rules to (through its DNA) request review of the project following its submission for registration, on the basis of any issue relating to its validation.
- (d) The Host Country may request review of the GHG reductions verified with respect to the project, on the basis of any issue of fraud, malfeasance or incompetence of the DOE conducting verification and certification.
- (e) There may be uncertainty under Host Country law as to which party has title to CERs, creating a risk of parties bringing competing claims to the CERs, potentially including Host Country claims where the resource required for the project, e.g. hydropower and geothermal renewable energy resources, are vested in the state.
- (f) It may be difficult for a project developer to obtain the non-CDM approvals necessary to implement the project, for example a foreign project developer may not be eligible to obtain the necessary approvals. It may be difficult for a project developer to obtain the non-CDM, or the nature of the relevant regulations and processes makes obtaining approval difficult.
- (g) There may be other regulatory factors within a Host Country that affect the ability of a project developer to implement a CDM project, or that affect its financial viability. For example, it may be difficult for a new CDM electricity generation project to gain access to the domestic electricity grid, or the Host Country may provide subsidies to existing

generators that make it difficult for new generators to be cost-competitive.

Structuring CDM Projects to Manage Project Risks

CDM projects, and the purchase of the CERs they generate, may be structured in a variety of ways, in order to accommodate the various risks associated with a particular project as discussed above, and the relative expertise and resources (including finance) of the parties involved. Different project structures, each entailing specific (high or low) levels of exposure for each party to the relevant risks, may incorporate differing approaches to:

- (a) *Ownership and operation of underlying project assets.* For example, if a buyer wishes only to purchase CERs, the buyer is not likely to participate in the broader project development and implementation, such as the operation and maintenance of an industrial facility of which an energy efficiency CDM project forms part. The buyer is also unlikely to accept any of the risks associated with this broader project. Instead, the buyer will simply agree to purchase some or all of the CERs issued in respect of the project (see ERPA offtake model, discussed below).
- (b) *Ownership and operation of the CDM project.* Where an Annex I Entity wishes to purchase CERs in the primary market at a relatively low price, and to this end is willing to assist a Host Country to develop a CDM project and accept a higher level of exposure to project-related risks, then the Annex I Entity may choose to provide up-front finance for the project and assume responsibility for some or all aspects of developing the CDM project (see ERPA Developer Model, discussed below).
- (c) *Ownership of the project outputs (CERs and non-carbon products).* If an Annex I Entity wishes to assist a Host Country entity in generating and commercializing both carbon and non-carbon products (i.e. CERs and other project outputs such as electricity), then the Annex I Entity may seek to take on relatively broad responsibility with respect to the development of the project as a whole, including both CDM and non-CDM aspects (see Project Development Agreement, Carbon and non-Carbon, discussed below).

In each case, the rights of each party in respect of CERs, CER revenues, and non-carbon products generated by a CDM project will depend on how the project is structured, and the allocation of rights, responsibilities and risks agreed by the participants as part of this structure.

Contracting for Different CDM Project Structures

Structuring of CDM projects is a complex process, and the final project structure is likely to be unique in each case, adapted to the particular circumstances and requirements of the parties involved. However, certain basic project structures have been tested in the CDM market and proven effective in multiple jurisdictions and CDM project sectors. Three such structures, as discussed in the examples given above and involving differing degrees of project ownership and involvement by the Annex I buyer, as well as different rights and risks for the parties involved, are set out below.



Project Development Agreement, Carbon and non-Carbon

Under a CDM project structure based on a Project Development Agreement (*PDA*), the Annex I entity becomes involved in the project at an early stage, accepting full responsibility for the design and development of the CDM project, from elaboration of the initial project idea through to registration and ultimate issuance of CERs.

Under a PDA, the Host Country entity generally need play little or no part in the development and implementation of the CDM project, particularly as regards taking the project through the CDM project cycle to registration, and the ongoing monitoring and verification of the GHG reductions achieved. This may be particularly beneficial where the Host Country is relatively new to the CDM and its functioning, and so requires support from a party more experienced and familiar with the relevant

processes, in order successfully host the project and generate CERs. The Host Country entity may, however, be responsible for the operation of the CDM project facilities and equipment, as well as operation of the underlying project facilities, such as power stations hosting fuel-switch CDM projects, and landfills hosting landfill gas capture and flaring CDM projects.

Where an Annex I entity agrees to take full responsibility for the development of a CDM project under a PDA, the Annex I Entity will generally also seek to take all (100%) of the CERs generated by the project. This may require the Host Country entity to assign to the Annex I entity any and all rights it may have with respect to the CERs, in consideration for provision by the Annex I entity of its expertise and services in developing and implementing the project. Such an assignment will mean the Annex I entity acts as the seller of CERs in any ERPA subsequently agreed with a third party for the sale and purchase of CERs from the project.

The Host Country entity and Annex I entity can, however, agree under the PDA to share the revenue from the sale of CERs in particular proportions. In addition, the Annex I entity may be more familiar with carbon markets and so better positioned to locate a suitable buyer for the CERs, and achieve a higher sale price. It is generally also easier for sellers to sell all of the CERs generated by a CDM project to a single buyer, rather than dividing the CERs across multiple buyers (such as would be the case if the Host Country retained title to a proportion of the CERs, and sold them independently to a different buyer). For these reasons, a CDM project structure based on a PDA and incorporating an assignment of rights to CERs and sharing of CER revenues may enable Host Country entities to realize maximum benefit from a CDM project, even where they lack specific CDM knowledge and experience.

It should also be noted that PDAs may extend beyond the CDM aspects of a project to also cover the non-CDM or non-carbon aspects of the project. For example, where a CDM project at a landfill involves the capture and flaring of landfill gas, and also the generation of electricity from the heat produced by flaring, the Annex I entity may accept responsibility for design, procurement installation and/or operation of the electricity generation facilities, in return for a share of the revenues generated from the sale of electricity into the local grid.

ERPA Developer Structure

The ERPA developer structure, like the PDA structure, involves the Annex I entity accepting responsibility for the development and implementation of the CDM project, and using its CDM expertise to take the project through to registration and manage the monitoring and verification processes necessary for issuance of CERs. This structure is therefore also

appropriate where the Host Country entity is less familiar with the CDM and its requirements, and requires the support and expertise of a more experienced CDM project developer in order to undertake the contemplated CDM project.

Unlike the PDA structure, however, the ERPA developer structure does not incorporate an assignment to the Annex I entity of the Host Country entity's rights to CERs generated by the project. Rather, the Host Country entity retains the initial rights to receive CERs generated by the project, and agrees to sell the CERs to the Annex I entity under a conventional sale and purchase arrangement.

In this way, the Host Country entity would act as the primary seller of the CERs, and would receive payment from the Annex I Entity for all CERs. The price per CER may, however, be reduced on the basis of the project development services provided by the Annex I entity. Alternatively, the Annex I entity may not be required to pay for the first CERs generated by the project up to an agreed volume, in consideration of the costs and services already paid and provided by the Annex I entity in developing the project.

ERPA Offtake Structure

The ERPA offtake structure reflects an arrangement in which a Host Country project developer retains responsibility for the design, development and implementation of a CDM project, and then sells the CERs to an Annex I entity who has no involvement in the project other than as purchaser of CERs. This approach is therefore better suited to Host Country entities able to more confidently take the project through the CDM project cycle, and manage the process of verifying GHG reductions and arranging issuance of a corresponding number of CERs.

This is in some ways the simplest CDM project structure, as Host Countries are better positioned to deal with the project development and approval processes imposed under the relevant domestic law. Use of the ERPA offtake structure also has the potential to help Host Country project developers and CER sellers to realize the highest price per CER, given that the Annex I buyer has invested relatively little in the initial development and implementation of the project.

The structures set out above all assume that the Annex I Entity purchasing CERs will not take an equity interest in the CDM project. Although foreign ownership of CDM projects and related assets is often prohibited under Host Country law, this is not always the case. The possibility of foreign ownership of CDM projects is discussed in section 6.4.

Contracting Risks

Contracting to buy and sell CERs gives rise to a number of legal risks and issues related to the contractual rights and obligations of each party. Typically in the primary market, a contract for the sale of CERs (usually referred to as an Emission Reduction Purchase Agreement or "ERPA") will have two parties: a Host Country seller and Annex I buyer. Sale structures and the corresponding ERPAs may, however, be more complicated than a simple sale and purchase transaction, potentially involving multiple sellers and/or buyers, other parties such as consultants who may be entitled to a portion of CERs, and also more complex payment and delivery structures involving secondary purchasers, custodians (to hold CERs) and escrow agents (to hold payments).

Some of the key risks associated with ERPAs and their terms and conditions as relevant to Host Country entities are set out below.

Selling on the Spot Market or under a Forward Contract

CERs can be sold and purchased:

- on a single "spot" trade basis, once the CERs have been allocated or issued; or
- on a forward basis, with multiple future delivery dates for CERs over a number of years.

Each of these sale arrangements gives rise to different risks and issues.

Spot trades

Once CERs have been issued by the CDM Executive Board, they can generally be freely traded on the "spot" market, with immediate transfer of the CERs and settlement of the trade.

Permits or emission allowances under domestic or regional emissions trading schemes, such as European Union Allowances (**EUAs**) issued under the EU Emissions Trading Scheme (**EU ETS**), are generally traded on a spot basis, because they will typically have already been allocated or issued to the seller at the time the trade is agreed.

Nonetheless, CERs can also be traded on a spot basis once they have been issued by the CDM Executive Board.

The fact that in a spot trade the CERs are already held by the seller removes any risk that they will not actually be generated or available to trade (which is a risk in forward trades). This reduced risk is reflected in the following terms typical of spot trades:

- sellers of CERs in spot trades can agree to sell guaranteed volumes of CERs (this can be contrasted against sellers in forward

trades, who may be unwilling to guarantee delivery of a specific volume of CERs if they have are not already held by the seller); and

- prices for spot trades are typically higher than for forward trades, given that the buyer is not required to take on any delivery risk and the seller is guaranteeing delivery.

Forward trades

CERs are frequently sold on a forward basis, as part of a future stream of CERs generated by a specific CDM project and sold under an ERPA specific to that project.

CERs sold on a forward basis do not yet exist (the underlying GHG reductions must first be achieved and verified, and the CERs issued by the CDM Executive Board). They therefore cannot be delivered to the buyer until they have actually been issued. This means that CERs sold in forward trades are subject to the risk that they may never in fact be issued. This delivery risk gives rise to the following issues:

- Where a forward trade of CERs is agreed even before the relevant CDM project has been registered or commissioned, there is a risk that these milestones will never be achieved and the CERs will never be generated. In this situation, the ERPA for the sale should include conditions precedent preventing the ERPA from coming into force until the project is actually capable of generating CERs.
- Generation and issuance of the CERs may require the performance of certain tasks with respect to the CDM project, such as preparation of the PDD, validation of the project, and verification and certification of the GHG reductions it achieves. Responsibility for these will need to be

allocated to a party under the ERPA.

- Given the risk that a CDM project will not generate the anticipated volume of CERs, sellers may be unwilling to guarantee delivery of a specific CER volume, such that the buyer will need to agree to buy a non-guaranteed volume of CERs.
- Where a seller agrees only to sell a non-guaranteed volume of CERs, the buyer must accept the risk that the credits will never be generated, and may use this as a basis for negotiating a reduced price.

Selling a Guaranteed Volume or only the Volume Generated

CERs can be sold either:

- in fixed volumes, with the seller guaranteeing to deliver a specified number of CERs on or before a particular date; or
- on the basis of the actual volume of CERs generated by a CDM project, such that volumes are not guaranteed but subject to project performance.

Delivering guaranteed volumes

Host Country primary sellers are often unwilling to guarantee delivery of a fixed volume of CERs in a forward trade, given that there is no guarantee that the CERs the project will actually generate the required volume of CERs.

Some sellers are, however, willing to agree to delivery on such terms where the seller's risk of being unable to meet its delivery obligations can be mitigated. Mechanisms used by sellers to mitigate such risks include:

- In primary transactions: by agreeing to sell only a percentage of the CERs anticipated to be generated by a CDM project, to allow for a degree of project under-performance.

- In both primary transactions and secondary transactions: by using preconditions that manage key project risks, e.g. by making each party's obligations conditional on project registration and/or commissioning.
- For sellers in secondary transactions: by pooling CERs from multiple projects and selling from this pool, such that delivery risks are spread across a number of projects.

By guaranteeing delivery of a fixed volume of CERs, sellers can often obtain a higher CER price than would be achievable in the context of non-guaranteed delivery. Likewise, purchasers can feel more comfortable that they will receive the CERs they've agreed to purchase.

Non-guaranteed deliveries

Rather than guaranteeing fixed delivery volumes, sellers often agree to sell and deliver a non-guaranteed volume determined by reference to the volume of CERs actually generated by a CDM project.

For example, a seller may agree to deliver:

- all of the CERs generated by a project;
- a particular percentage of the CERs generated; or
- all CERs generated up to a specified volume cap.

A secondary seller may agree to only sell the CERs that it actually receives from a primary seller. In this way, neither the primary nor the secondary seller is at risk of delivery default if the project underperforms.

A buyer purchasing a non-guaranteed volume of CERs will typically pay a lower price per CER, given the buyer's acceptance of the risk that the credits will never be generated. This risk may also create compliance risks for buyers who

are seeking to acquire CERs in order to comply with an emissions trading scheme such as the EU ETS.

Costs and Taxes

Implementing CDM projects and procuring issuance of CERs entails a variety of costs that must be paid before CERs can be delivered.

These costs can include:

- fees and costs associated with the registration of the CDM project, including fees charged by Designated Operational Entities to validate the project in accordance with the CDM Rules;
- the costs of monitoring the number of GHG reductions achieved by a CDM project during a particular period, and having these reductions verified and certified by a Designated Operational Entity;
- fees charged by the CDM Executive Board for issuance of CERs; and
- fees charged by registry administrators to open registry accounts and transfer CERs in and out of such accounts.

Buyers and sellers will need to allocate responsibility for these costs between them.

CERs are generally also subject to various taxes, including taxes specific to CDM projects as well as more general taxes on goods and trade.

Responsibility for costs and taxes is a commercial issue to be negotiated between buyers and sellers. Where a buyer agrees to pay certain costs and taxes, it can use this as a basis for seeking a lower CER price. Responsibility for costs and taxes can also be passed through to secondary purchasers, but this will potentially affect the CER price a secondary purchaser is willing to pay.

Default under ERPAs

The most common types of default in CER transactions are:

- breaches of material obligations (e.g. delivery failure by the seller, or payment failure by the buyer);
- breaches of the representations and warranties given by a party the ERPA; and
- a party becoming insolvent.

Parties will often be allowed a “cure period” (for example thirty or sixty business days) during which it can rectify the default, for example where a purchaser inadvertently fails to make payment due to an administrative error.

If the default is not rectified within the cure period, the non-defaulting party will be entitled to claim remedies for the default. These remedies will typically be specified in the ERPA, and may include:

- the right to terminate the ERPA; and
- the right to claim damages from the defaulting party.

ERPAs can provide for damages to be calculated using either of the following approaches:

- **Liquidated damages:** damages are calculated using an agreed methodology set out in the ERPA, often based on the cost to the non-defaulting party of entering into a replacement transaction with reference to an expressly defined market index.
- **Unliquidated damages:** damages are calculated in accordance with the governing law on the basis of the total losses the non-defaulting party determines it has incurred as a result of the default and termination.

Damages provisions generally apply equally to the buyer and the seller, so each will bear the same risk in agreeing to liquidated or unliquidated damages.

Another key issue for buyer and sellers is the enforceability of the ERPA under the laws of the Host Country. Even where the ERPA may nominate laws other than the Host Country laws as the governing law of the ERPA, issues can still arise in relation to the ability of the buyer or seller in enforcing the terms of the ERPA within the Host Country legal system. This is an issue which project developers need to consider. This risk is typically mitigated by the parties by obtaining a legal opinion on the enforceability of the ERPA under the Host Country domestic law, either prior to entering into the ERPA, or as a condition precedent to the entry into force of the ERPA.

Disputes under ERPAs

It is almost always quicker, simpler and cheaper to resolve disputes through negotiation or arbitration, rather than litigation. This applies equally to disputes in relation to CER transactions. For this reason, ERPAs often include provisions requiring the parties to go to arbitration, if a dispute cannot be resolved by negotiation.

The arbitration provisions in ERPAs will define the terms for the arbitration, so they need to address the following issues:

- the rules that will govern the arbitration, e.g. the Rules of Arbitration of the International Chamber of Commerce;
- the location for the arbitration (this should be a neutral location);

- the language to be used in the arbitration (this will often be English, but will need to be reasonable for both parties);
- the number of arbitrators (generally one or three arbitrators will be appointed); and
- the means by which the arbitrator(s) are to be appointed.

ERPAs that include arbitration provisions may nonetheless allow a party to seek an injunction or other preliminary protection from a court, in order to avoid irreparable damage such as disclosure of confidential information or breach of exclusivity requirements. This will not, however, affect the general obligation to arbitrate rather than litigate.

Each ERPA must also specify its governing law. The terms and conditions of the ERPA will be interpreted in accordance with the specified governing law, so the chosen law will be an important factor in any dispute and resulting arbitration. English law is generally adopted in ERPAs for international CER transactions, but local law may be preferred in some transactions.

Summary of Project Risks and Mitigants

The table below summaries some of the project risks discussed in this chapter, and briefly identifies potential means through which these risks can be mitigated within the project structures discussed above.

CDM Project Stage	Risks	
Pre-registration	<p>Project fails to achieve registration, for example due to:</p> <ul style="list-style-type: none"> ▪ failure to obtain Host Country LoA; ▪ failure to be successfully validated by a DOE; or ▪ rejection of project following review by the CDM Executive Board. 	
Verification	The Host Country through its DNA may request review of the GHG reductions verified with respect to the project, on the basis of any issue of fraud, malfeasance or incompetence of the DOE conducting verification and certification.	
Title to Project and CERs	Where it is uncertain which party has title to CERs under Host Country domestic law, there is a risk of parties bringing competing claims to the CERs, which may result in disputes or difficulties in selling the CERs. This may include Host Country claims in respect of CERs, where the resource required for the project, e.g. hydropower and geothermal energy resources, are vested in the state.	
Non-CDM Approval of Project	It may be difficult for a project developer to obtain the non-CDM approvals (i.e. other than the LoA) necessary to implement the project, for example where the developer is a foreign entity and is not eligible to obtain the necessary approvals under Host Country law, or the nature of the relevant regulations and processes makes obtaining approval difficult.	
Operation of Project	There may be a change in the Host Country laws or regulations applicable to a CDM project that may undermine its continued ability to operate. Such changes may include environmental or other laws that affect its practical operation, or fiscal or financial laws that affect the viability of the project.	

	Mitigants
	<ul style="list-style-type: none"> ▪ Under ERPA Developer and Offtake models, include a precondition in ERPA that payment and delivery obligations ineffective until project is registered; ▪ Under ERPA Developer model, buyers may be able to require indemnity from seller for buyer's costs e.g. advance and project development costs, if project fails to become registered. ▪ Under Project Developer and ERPA Developer models, Host Country entities may be able to require indemnity from Annex I developer for Host Country entity's costs if project fails to become registered.
	<ul style="list-style-type: none"> ▪ Under all project structures, require DOE to indemnify project participants under contract for verification and certification services against any loss sustained as a result of DOE fraud, malfeasance or incompetence resulting in cancellation of CERs following review.
	<ul style="list-style-type: none"> ▪ Under Project Developer Model where Annex I developer entity take full title to all CERs generated, an assignment and waiver in respect of all current and future rights to CERs should be sought from all potential competing title holders, including Host Country entity named in Host Country LoA. ▪ Under ERPA Developer and Offtake models, buyer should seek representation and warranty from seller that seller has full, unencumbered legal and beneficial title to all CERs delivered and purchased.
	<ul style="list-style-type: none"> ▪ Under ERPA Developer and Offtake models, include a precondition in ERPA that payment and delivery obligations ineffective until project is commissioned. ▪ Under ERPA Developer model, buyers may be able to require indemnity from seller for buyer's costs e.g. advance and project development costs, if project fails to achieve commissioning. ▪ Under Project Developer and ERPA Developer models, Host Country entities may be able to require indemnity from Annex I developer for Host Country entity's costs if project fails to achieve commissioning.
	<ul style="list-style-type: none"> ▪ Under all project structures, include in all contractual documentation a "change in law" provision entitling the parties to renegotiate or, if necessary, terminate the project in the event of a change in Host Country domestic law that affects the ability of the project to operate. If no express change in law provision is included, such a regulatory change may be able to be characterized as a force majeure event, although the rights and obligations of each party in the event of force majeure are not likely to be as useful in such situations as those usually provided for in a change in law provision.

10 Glossary

A & R	Afforestation and Reforestation.
Additionality	The reduction in anthropogenic GHG emissions achieved by a CDM project that is additional to any reduction that would have occurred in absence of the CDM project. In other words, additionality is the requirement that the GHG emissions after implementation of a CDM project are lower than those that would have occurred in the most plausible alternative scenario to the implementation of the CDM project. This alternative scenario may be the business-as-usual case (that is, the continuation of current emission levels in the absence of the CDM project), or it may be some other scenario which involves a gradual lowering of emissions intensity. Additionality is a principal condition for the eligibility of a project under the CDM.
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. It is distinct from Reforestation, which is the conversion of land that was not forested on 31 December 1989 to forested land.
Annex B Countries	Those countries listed in Annex B to the Kyoto Protocol, being a list of Annex I Countries that have committed to a quantitative emission reduction target under Article 3.1 of the Kyoto Protocol.
Annex I Countries	Parties to the UNFCCC that have committed to emission restraints under Article 4.2 (a) and (b) of the UNFCCC as listed in Annex I of the UNFCCC (generally developed countries and countries undergoing the process of transition to a market economy).
Annex I Entity	An entity located in the jurisdiction of an Annex I Party that has been authorised by that Party to participate in a CDM project.
Assigned Amount	The amount of GHG emissions (expressed in AAUs) that an Annex B Party can emit during the Commitment Period taking into account the quantified emission limitations reduction commitments of Annex B of the Kyoto Protocol.

AAU	Assigned Amount Unit - A unit issued pursuant to the relevant provisions on registries in decision – CPM.1 of the Marrakesh Accords and is equal to one metric tonne of CO ₂ e.
CO ₂ e	Carbon Dioxide Equivalent - the unit of measurement used to indicate the global warming potentials defined in decision 2/CP.3 of the Marrakesh Accords or as subsequently revised in accordance with Article 5 of the Kyoto Protocol, which sets out the procedure for revision of methodologies and adjustments.
CDM	Clean Development Mechanism – flexible mechanism under Article 12 of the Kyoto Protocol with the purpose to (1) assist non-Annex I Parties in achieving sustainable development; (2) contribute to the ultimate objective of the UNFCCC; and (3) assist Parties included in Annex I achieve compliance with their quantified emission limitation and reduction commitments under Article 3.
CDM Executive Board	The formal governance body established under Article 12 of the Kyoto Protocol to oversee the implementation and administration of the CDM, under the authority and guidance of the COP/MOP.
CDM Modalities	Modalities and procedures for the CDM as defined in Article 12 of the Kyoto Protocol, and adopted by the COP/MOP at its first meeting. Separate modalities and procedures exist for large-scale, small-scale, forestry and small-scale forestry projects. The modalities and procedures provide for the process for approval and use of methodologies; the independent verification and certification of emission reductions from project activities; and oversight by the Executive Board of key processes including registration and review.
CDM Project	An emission reduction project which is intended to be registered with the CDM Executive Board and ultimately realise the delivery of CERs.

CDM Registry	Standard electronic database established and maintained by the CDM Executive Board which contains common data elements relevant to the issuance, holding, transfer and acquisition of CERs.
CDM Rules	Collectively the Kyoto Protocol, the decisions of the COP/MOP and the decisions of the CDM Executive Board.
CER	Certified Emission Reduction - a unit issued under the CDM pursuant to Article 12 of the Kyoto Protocol and all other relevant requirements and which is equal to one metric tonne of CO ₂ equivalent.
COP/MOP	COP/MOP Conference of the Parties serving as the meeting to the Parties to the Kyoto Protocol, being the Kyoto Protocol's supreme body. The sessions of the COP and COP/MOP are held during the same period. COP/MOP decisions are usually referenced CMP.
CPA	CDM Programme Activities – the individual activities that make up a Programmatic CDM project. A CPA is a single, or a set of interrelated measure(s) which produce GHG Reductions or result in net anthropogenic GHG removals by sinks, applied within a designated area defined in the baseline methodology.
DNA	Designated National Authority – the national authority for CDM designated by a Party to the Kyoto Protocol.
DOE	Designated Operational Entity – an independent legal entity accredited by CDM Executive Board and designated by the COP/MOP that can validate proposed CDM projects and verify and certify GHG emission reductions.
EIA	Environmental Impact Assessment.
ERPA	Emission Reduction Purchase Agreement – one form of buying and selling CERs.
GHG Reduction	A reduction in emissions of GHGs or unit of sequestered GHGs equivalent to one metric ton of carbon dioxide equivalent.

GHG	One or more of the six gases listed in Annex A to the Kyoto Protocol that trap heat when released into the atmosphere, being carbon dioxide (CO ₂), methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF ₆). They occur through natural and human-induced activities.
Host Country	The non-Annex I country in which a CDM project is based.
JV	Joint Venture, or an entity formed between two or more parties to undertake economic activity together.
Kyoto Protocol	The Kyoto Protocol to the UNFCCC signed at the third COP meeting, establishing binding Annex I GHG emission reduction targets of 5.2% below 1990 levels by 2008-2012.
LoA	Letter of Approval – A letter issued by the Designated National Authority of the Host Country to a CDM project confirming that the project, as proposed, will assist the Host Country to achieve its goals of sustainable development.
Marrakesh Accords	The Marrakesh Accords are the aggregate decisions of the COP from decision 2/CP.7 through to decision 24/CP.7 inclusive of the COP in its seventh session, held at Marrakesh, Morocco from October 29 to November 10, 2001. These decisions were adopted by the COP/MOP at its first meeting in Montreal in November 2005.
Non-Annex I Countries	Countries which are not listed in Annex I of the UNFCCC (generally, developing and least developed countries).
PDD	Project Design Document – the document to be prepared and submitted by Project Participants to an accredited DOE for validation of a proposed project activity.
PIN	Project Idea Note – an indicative document used during the development of a CDM project that precedes the Project Design Document. A PIN sets out the basic details and aims of a CDM project.

PoA	Programme of Activities – the standard or policy that forms the basis for a Programmatic CDM project.
Project Participants	The legal entity (both public and private entities) that develop and implement CDM projects.
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 forested but that has been converted to non-forested land. For the First Commitment Period, reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31 December 1989. (See also, afforestation).
Supplementary CDM Laws	Domestic laws, policies and other instruments introduced by Host Countries in addition to those prescribed by the CDM Modalities and CDM Rules which aim to regulate CDM activities within their jurisdictions.
UNFCCC	United Nations Framework Convention on Climate Change, signed at the 'Earth Summit' in Rio de Janeiro in May 1992.
VAT	Value-Added Tax.
VVM	Validation and Verification Manual – a standard which aims to promote quality and consistency in DOE reports and ensure each CDM project activity meets all applicable CDM requirements. The VVM was adopted by the CDM Executive Board at its 44th meeting and sets out principles to guide DOE involvement in Validation and Verification of CDM projects.

The Clean Development Mechanism (CDM) continues to evolve organically, and many legal issues remain to be addressed in order to maximise its effectiveness. This Guidebook explains through case studies how domestic laws and regulatory frameworks in CDM Host Countries interact with international rules on carbon trading, and how the former can be enhanced to facilitate the implementation and financing of CDM projects.

Authored by leading experts from Baker & McKenzie's Global Environmental Markets Practice team with assistance of CDM practitioners and research collaborators from around the world, **Implementing CDM projects: Guidebook to Host Country Legal Issues**, is the newest addition to our CDM Guidebook series, and a companion to the groundbreaking UNEP – Baker & McKenzie *Legal Issues Guidebook to the CDM (2004)*

