CHAPTER 5:

Transaction Costs, Efficiency and Supportive Governance

High transaction costs can not only lower the value received by the host countries but can also reduce the degree of utilization of CDM. The costs of implementing CDM projects will likely decrease over time as a result of learning curves. However, several institutional arrangements can keep CDM transaction costs down even in the early stages of its implementation. This chapter first provides an introduction to transaction costs and their implications on project feasibility. It then examines ways in which the CDM can be efficiently managed by host country governments, if capacity in this area can be strengthened.

ESTIMATING TRANSACTION COSTS

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- Project design costs
- Other CDM costs
- Other potential costs

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CHAPTER 5: TRANSACTION COSTS, EFFICIENCY AND SUPPORTIVE GOVERNANCE

The Clean Development Mechanism has the potential to redirect considerable investments into new technologies, energy conservation, fuel switching and carbon sequestration. Precisely because so much is at stake – not only investments, but also the development paths of many countries and the world's ability to effectively address climate change – many safeguards and checks have been built into the CDM project cycle. The goal is to make the CDM live up to its promise. Host country governments have crucial roles to play, both as regulators to ensure that the CDM fulfills its objectives, and as promoters, to ensure that projects that can help their countries can attract investors and can get through the project cycle.

Even with supportive governance, the process of getting emission reductions to the point of certification may be lengthy and cumbersome, and the associated transaction costs may often be high. Transaction costs will be incurred in the creation, alteration, protection or enforcement of property rights for carbon as a commodity. High transaction costs can not only lower the value received by the host countries but can also reduce the degree of utilization of CDM. The costs of implementing CDM projects will likely decrease over time as a result of progress on the learning curve.

However, several institutional arrangements can keep CDM transaction costs down even in the early stages of its implementation. Most host countries will need to build their institutional capacities considerably to achieve this. Following a discussion of transaction costs, this chapter examines ways in which the CDM can be efficiently managed by host country governments.

ESTIMATING TRANSACTION COSTS

Transaction costs are part of almost any trade or investment. In economics theory, the price of a commodity is at an equilibrium when it equals the marginal cost of production. However, in order to get the product from the producer (seller) to the consumer (buyer), there are often additional costs beyond the production. These may include costs of – or of time lost during – negotiations and regulatory processes, as well as legal or banking fees and opportunity costs, among others. Transaction costs include expenditures that are over and beyond production costs.

Transaction costs raise the price of a product beyond the marginal cost of production, thereby reducing demand for the product. Transaction costs associated with the CDM can be incurred at the project level, the national level and the multilateral level¹. These may include:

Project design costs

For any CDM project, the project developer is obliged to prepare a project design document and submit it for approval. Costs that are incurred in the process include:

- Costs prior to project document preparation, such as communicating with government; and
- Cost of project document preparation, either by the developer or contracted out to a consultant firm or an intermediary specialist.

Other CDM costs

The CDM Executive Board may impose additional costs on companies involved in the CDM to be generated from proceeds of CDM projects, some of which may not be directly related to the project, but rather reflect costs associated with implementing the Kyoto Protocol. For instance:

Adaptation: Two per cent of CDM project proceeds will be levied for use as an adaptation fund² except in the case of the least developed countries. For all other projects, this levy is compulsory.

¹ The breakdown of transaction costs used here were borrowed from a background paper prepared by Jiahua Pan for the UN Foundation project on Capacity Building in China: "Transaction Costs For Undertaking CDM Projects."

 $^{^{2}}$ A fund established by the UNFCCC to help vulnerable countries adapt to the effects of climate change.

CER validation, verification and certification costs: It appears these costs are coming down as designated operational entities are recognizing that the process is becoming more straightforward.

Executive Board administrative costs and registration fees: The Executive Board has set a series of costs for project registration, in accordance with the size of the individual projects:

Tons per year	Registration fees per year		
Less than 15,000	\$5000		
Between 15,000	\$10,000		
and 50,000			
Between 50,000	\$15,000		
and 100,000			
Between 100,000	\$20,000		
and 200,000			
More than 200,000	\$30,000		

Other potential costs

Some host countries also require sharing of CERs (several countries levy this in the form of a tax; Chile,

TABLE 5.1 TRANSACTION COST ESTIMATES

for example, may levy the sharing level at the rate of its domestic value added tax). Insurance services to ensure delivery of contracted CER, or the opportunity cost of holding back CERs to create a self-insurance buffer may also add to the tranasaction costs.

Transaction costs and project feasibility

Clearly, transaction costs that are high relative to total costs can reduce the project's feasibility. The value of the CERs generated must be significantly higher than costs associated with the transaction in order to make a project worthwhile. Transaction costs are particularly problematic when the volume of CERs being offered is relatively low or when the price is very low. Transaction costs that may kill a project at a market-clearing price of \$2.50 a ton may be perfectly acceptable if the market price is \$7.50 per ton.

Examples set out below in table 5.1 demonstrate how transaction costs affect investment decision-making. These costs reflect the use of an international carbon consultant, since there are currently few national experts. Aggregated transaction costs are currently averaging about \$200,000 per project. This is directly related

CDM PROJECT CYCLE	CARBON TRANSACTION CONSULTANT'S
	ESTIMATE OF COST (IN US\$)
UP-FRONT (PRE-OPERATIONAL) COSTS:	
1. Feasibility assessment	5,000-20,000
2. Preparation of the project design document	25,000-40,000
3. Registration	10,000
4. Validation	10,000-15,000
5. Legal Work	20,000-25,000
TOTAL UP-FRONT COSTS:	70,000-110,000
Operational Phase Costs:	
1. Sale of CERs	Success fee in region of 5-10 per cent of CER value. Higher for a
	small project than a large project.
2. Risk mitigation ³	1-3 per cent of CER value yearly. Mitigation against loss of incremental
	value as a consequence of project risk.
3. Monitoring and verification	3,000-15,000 per year ⁴ .

Source: EcoSecurities, 2003

 $[\]frac{3}{3}$ Risk mitigation fees: the potential fee a developer may wish to incur so as to insure against non-delivery of contracted CERs. (This could take the form of a specific insurance, a product which is only now emerging in the market)

⁴ It is not clear yet exactly how the burden for monitoring and verification will be realized, costs will be incurred if on site verification is mandated, vs. remote verification for example.

to the fact that most projects are unique and are on the steep part of the learning curve – transaction costs are expected to decline as participants gain more experience with the process. Finally, different project types will incur different costs. Most experience to date has concentrated on supply-side generation projects, and this will be the focus of the following transaction cost analysis.

When considering the financial viability of a project, lenders and investors are particularly interested in assessing the cash flows over the first few years of operation. Below is an examination of the financial impact of the first five years of CER transaction costs, relative to the revenues over that period, for a small-scale and a large-scale project. The analysis concentrates on the pre-operational costs, as the operational transaction costs will only be relevant if the project is considered viable based on pre-operational costs. Operational costs are discussed later in this section. Table 5.2 is based on the following assumptions:

- 1. Total cost estimates for the pre-operational phase are between \$70,000 and \$110,000.
- 2. A typical small project (2MW biomass plant, 20-year lifetime, resulting in reductions of 35,000 tCO₂/yr) and a large project (150MW gas plant, 20 year lifetime, resulting in reductions of 350,000 tCO₂/yr) are used to compare the impact of the up-front costs:
- **3.** CERs are purchased at \$3.00 tCO₂ in present value terms, a reasonable mid-range price
- Values are over the first five years of operation, and discounted to present value at 6 per cent per annum.
 Generally project developers would expect transaction costs related to a CDM project (expressed as a percent-

TABLE 5.2: REVENUE AND UP-FRONT TRANSACTION COSTS FOR TYPICAL SMALL-SCALE AND LARGE PROJECT [TONS CO₂ PER YEAR]

	TOTALS (PRESENT VALU	JE)	ANNUA (TONNE)	L EMISSIONS REDUCTION S CO2 PER YEAR)
CERS (TCO ₂)	156,279		35,000	
PRESENT VALUE (Price \$3 TCO₂)	\$468,836 (Discounted at 6 p	er cent)		\$105,000
NET REVENUES	\$410,120			\$91,850
TRANSACTION COSTS	\$57,000			\$90,000
NET PRESENT VALUE BETWEEN	\$373,120			\$345,12
LARGE PROJECT				
CERS (TCO2)	1,562,787		:	350,000
PRESENT VALUE (Price \$3 TCO ₂)	\$4,688,361 (Discounted at 6 p	er cent)	\$1,0	050,000
NET REVENUES	\$4,503,059		\$1,	008,500
TOTAL UP-FRONT COSTS BETWEEN	\$57,000	\$90,000		
NET PRESENT VALUE BETWEEN	\$4,466,059	\$943,500		
TRANSACTION COST SUMMARY		SMALL PRO	JECT	LARGE PROJECT
UP FRONT COSTS AS A PER CENT OF NET	LOW COST	13 per cent		1.2 per cent
PRESENT VALUE OF EMISSION REDUCTIONS				

SMALL PROJECT

Source: EcoSecurities, 2003

age of the potential value it creates) to be consistent with the level of transaction costs in other kinds of projects. Given the risks inherent in securing CER value, it would not be worthwhile to undertake the CDM process - or for that matter, any other project - if the costs outweigh the benefits. In conventional revenue streams, developers generally expect up-front costs to be no more than 5-7 per cent of the net present value of the revenue. In our example, the up-front costs -1.2-2 per cent – for the large project are well within this range. On the other hand, the transaction costs for the small project – from 14-22 per cent – would not be tenable, particularly given the inherent risks that no transaction occurs. The CDM Executive Board has made efforts to reduce the transaction costs for small-scale projects by introducing scaled registration costs and streamlined procedures (see chapter 4).

However, in some projects, the CER value can represent nearly pure profit, which would make a higher level of transaction costs – and risk of achieving them – acceptable. For the purpose of this analysis, we focus on a conventional transactional scenario. Consequently, the transaction costs represent monies at risk, at the point when a project confronts the greatest risk, that is, during the pre-operational phase and prior to generation of any revenue.

Based on both assumptions (5-7 per cent threshold for up front costs and a price of \$3 per ton CO_2) it is then possible to determine the minimum amount of CERs that have to be generated by the project for it to be viable. In our example, the minimum quantity of reductions is about 75,000 tCO₂ per annum for a total of up-front transaction costs of \$57,000. When costs are higher (\$90,000) the amount of CERs would need to be at least 105,000 tCO₂.

The above analysis does not take into account the operational costs, or other potential costs – such as an adaptation levy and administration charges. These are not 'at risk' costs as they are only paid if the project is implemented. These costs will also have to be considered before a final decision can be made about the viability of a CDM project.



FIGURE 5.1: CDM INSTITUTIONS AND PROJECT CYCLE AS DEFINED BY THE MARRAKECH ACCORDS

Source: Adapted from Axel Michaelowa, 'Host Country Requirements to Make the CDM Process Nationally Efficient,' UNDP internal discussion paper, April 2003.

HOST COUNTRIES' RESPONSIBILITIES IN MANAGING THE CDM PROCESS

As the CDM is a market mechanism, economic efficiency is a precondition for it effectiveness. However, as a new and complex process with many built-in checks and safeguards, the CDM can, in principle, be expensive to transact, requiring various layers of institutional involvement, as shown in figure 5.1.

Experience from Activities Implemented Jointly shows that the few countries that built up effective institutions were able to attract a significant share of total AIJ project activity. In many developing countries a critical element of attracting investments hinges on capacity development and institutional strengthening to address limitations in the CDM implementation and governance regimes resulting from relatively weak administrative structures. This ideally would lead to transparency, efficiently administered policies, laws and regulations, accountability and participation of diverse stakeholders.

To participate in the CDM, both host and investor countries have to establish a designated national authority for project approval. Investor countries also have to define rules and institutions for project approval. Host countries should closely follow these developments in Annex I countries, especially in those with which they have strong economic and cultural ties.

For most host countries, CDM activities are novel, intricate, and involve stakeholders at the international, national and local levels. Managing and directing these diverse interests is not simple and requires clear comprehension of demand and an understanding of legal and contractual requirements and CDM rules, as well as project and process coordination. Above all, it requires a transparent process.

Prerequisites for participation in the CDM for host countries include:

- Ratification of the UNFCCC;
- Ratification of the Kyoto Protocol; and
- Designation of a national authority for project approval and appointment of a focal point for the UNFCCC and Kyoto Protocol.

Determining sustainable development criteria for CDM projects is the prerogative of the host country. Depending on national circumstances, the host country government can also take responsibility for overseeing and managing a variety of further interactions with the market. Those countries that seek active involvement in the CDM will likely be actively engaged in the some of the following:

- Development of a national policy and regulatory framework to promote CDM transactions;
- Policy development, including setting sustainable development priorities;
- CDM project approval and registration;
- Management of CERs retained by the country as part of domestic credit sharing arrangements, as applicable;
- Participation in ongoing Kyoto Protocol negotiations;
- Encouraging the development and selection of qualified local operational entities
- Information exchange, marketing and promotion;
- Supporting capacity development; and
- Encouraging project development.

THE CRITICAL ROLE OF THE DESIGNATED NATIONAL AUTHORITIES

UNDP's experience and that from other early participants in this area suggests that CDM processes will incur prohibitive transaction costs in the absence of effective host country capacity to competently address issues relating to project approval, coherently articulated national sectoral priorities and transparently defined sustainable development criteria. These issues are the primary responsibility of the host country's designated national authority, or DNA, in accordance with the participation requirements under CDM rules. The key regulatory requirement for developing countries is in the establishment and ongoing capacity enhancement of these designated national authorities. This national authority is the key entity in the host country that will be involved with CDM, and is the body responsible for ensuring that the host country maintains control over the CDM projects executed in its country. The designated national authority is empowered to issue relevant endorsements and host nation approvals and to review all relevant national regulatory aspects regarding CDM projects. Specifically, the designated national authority has the final legal responsibility to

approve the transfer of project-related performance into the international system of CERs.

The designated national authority also has the important responsibility of ensuring that individual projects meet the host country's overall sustainable development objectives. The host countries are increasingly aware of the need to have clearly defined sustainable development criteria that will allow them to explore the ability of CDM activities to address the needs of the poorest segments of the population. These criteria are likely to vary from country to country. For instance, in many least developed countries, delivering energy services to rural populations could be a great benefit, and reduce greenhouse gas emissions associated with a reliance on wood fuels. Many countries could benefit from reforestation efforts. Countries with substantial coal resources and significant levels of poverty may be very receptive to project using cleaner coal technologies for power generation. And countries with energy-intensive industries may be very eager to 'leapfrog' to more efficient and cleaner new technologies.

Ideally, the designated national authority will arrive at the sustainable development criteria in a participatory manner and make the criteria widely available. Transparency in this will provide a positive signal to the private sector and also will guide developer on the kinds of projects that are likely to gain approval easily.

STRUCTURING THE CDM AUTHORITY

A number of countries have confirmed their designated national authorities to the CDM Executive Board. Lessons from successful AIJ host countries highlight that an independent single unit responsible for the solicitation and approval of projects is helpful. Such an arrangement – which can potentially be run by civil society or the private sector and audited by the state – has been found to minimize the undesirable effects of conflicting interests. Alternatively, in some instances the national political and bureaucratic imperatives may be better served by a two-tiered structure. The government ministries with interest and relevance to the national CDM process may constitute a national CDM board that defines the host country criteria and priorities. A separate secretariat, with predominant involvement of other civil society and/or private sector evaluates proposals and works with the national board for their approval and implementation.

Accordingly, national authorities may fall into two main types: a purely independent body and a two-tiered structure. Generally, the designated national authority will be a team of individuals, based in one government ministry and receiving input from others. It will be based in different ministries in the different host countries. While the preferred ministry as the managing agency will be determined by the national circumstances, it will be useful to include representatives from the ministries of energy, environment, natural resources and the more commercially focused ministries of trade.

The designated national authority may take the form of a new inter-ministerial committee or of an entirely independent body. In principle, the national authority function can sit outside direct government control, that is, in quasi-government organizations that may not be answerable to any one ministry. However, this has to be considered very carefully, and the necessary competencies and terms of reference should be clearly defined.

The UNFCCC web site (http://cdm.unfccc.int/) maintains a list of designated national authorities in those countries that have established them. UNDP is also planning to share experiences of different countries in establishing DNAs.

Several ministries will have a direct interest in being designated as the CDM national authority, or being part of it, for reasons indicated in table 5.4.

Potential regulatory roles

As the designated national authority is responsible for regulation of CDM projects, it should interact with the other government agencies and project developers throughout the project identification, development and approval process. Key roles in relation to the project development process include:

- Seeking preliminary advice on likely project suitability from relevant government agencies;
- Streamlining the CDM approval process at the host country level;
- Ensuring that the CDM project goes through the

TABLE 5.3: REASON	IS FOR INVOLVEMENT FROM VARIOUS MINISTRIES
MINISTRY	REASON FOR CDM INVOLVEMENT
Environment	Officials often act as lead negotiators in the UNFCCC and have expertise in the areas of
	climate change and environment
Energy	A significant number of projects may be in the energy sector
Agriculture	A significant number of projects may be in the agriculture sector
Natural Resources	A significant number of projects may impact on the national resource base
Transport	Some nations may favour projects in the transport sector (several AIJ projects focused on this area)
Treasury	Treasury officials may wish to manage the fiscal implications of the CDM (especially since
	CERs may come to be seen as a national asset)
Foreign Affairs	Given the international nature of the Kyoto Protocol, the CDM may have implications for diplomats and
	foreign ministries in managing external relationships and partnerships

relevant international processes and has all the relevant documentation (i.e. audited baseline and verification arrangements) to proceed;

- Setting clear and transparent sustainable development criteria for CDM projects;
- Setting criteria for local stakeholder consultation and for assessing a project's contribution to sustainability; and selection of technology options; and
- Establishing a system for registration of emission reductions.

Developers should check the status of a host country in terms of meeting eligibility criteria for the CDM. If a country did not ratify the Kyoto Protocol, projects within its borders will not be eligible under the CDM. The risk of starting a CDM project in a country that is not a Party to the Kyoto Protocol is borne by the project developer. It is strongly recommended, therefore, that developers obtain some form of host-country approval or indication, which would state that the country under consideration has the intention – or is preparing - to become a Kyoto party before continuing.

It can be assumed that the country is seriously interested in obtaining such status if it has:

- Set up, or is in the process of setting up, a CDM office;
- Been involved in the AIJ pilot phase; or
- Provided national communications to the UNFCCC; and/or appointed a national focal point for climate change.

Host country support function(s)

Experience from the more successful AIJ hosts shows that a single unit responsible for the solicitation of investment and approval of projects can be extremely effective. However, with CERs becoming compliance instruments to meet domestic regulations in Annex I (B) countries, a potential conflict of interest may occur between the investment promotion and project oversight functions.

Therefore, countries would be well advised to make a clear distinction between the regulatory functions (including setting national priorities and the approval process) and the support functions to encourage project development. Conflicts of interest may be particularly acute if the designated national authority is not under the control of a single ministry or the government itself. This can occur when the promotion agency also offers various regulatory services.

In some countries the two functions may reside side by side within the same government agency. In others, the support functions might be housed in agencies charged with investment and trade promotion, while the regulatory component might fall under a number of agencies, depending on circumstances. In the twotiered institutional approach described in figure 5.2, the designated national authority, which would be primarily responsible for regulatory functions, is represented by the national CDM board, while the secretariat would handle promotional functions.



Source: Adapted from Axel Michaelowa, 'Host Country Requirements to Make the CDM Process Nationally Efficient', UNDP internal discussion note, April 2003.

In terms of supporting project development, key areas of responsibilities under the support function could include:

- Clarifying and communicating host country policy and processes for development and submission of CDM projects for approval;
- Supporting project developers through the CDM project development process (including baseline development, validation, host country approval);
- Facilitating the sale of CERs to buying parties;
- Providing guidance on the steps required to prepare a project application; and helping project promoters take forward project opportunities;
- Receiving and processing project applications. This

BOX 5.1: THE UK CLIMATE CHANGE PROJECTS OFFICE FOR EXTERNAL CDM SUPPORT

The United Kingdom has substantial interests both in hosting greenhouse gas mitigation projects (in this context called Joint Implementation projects) and in promoting external projects with UK content. In 2001, the UK government set up a project's office called Climate Change Projects Office. The unit sits across two government departments and is a joint Department of Trade and Industry and Department of Environment, Food and Rural Affairs team (www.dti.gov.uk/ccpo).

It is expected that the designated national authority will ultimately reside in Department of Environment Food and Rural Affairs and will endorse the UK's involvement in projects, as the investing or hosting party. The Climate Change Projects Office is commercially focused, and is intended to maintain some distance from the Department of Environment, Food and Rural Affairs. The Department of Trade and Industry brings a commercial outlook intended to secure advantage in the project development field, and also ensure that projects developed by UK firms are able to effectively engage the CDM. The UK aims to offer support in a number of areas, including:

- Maintaining a database of consultants, equipment suppliers, technical, legal and financial services providers all vital to the project development process;
- Actively supporting the development of JI/CDM projects overseas and in the UK by providing support through the greenhouse gas project cycle;

- Support in signing relevant CDM project approvals and endorsements (leveraging through the UK's extensive network of embassies);
- Providing advice as to the ability to undertake a JI/CDM project in the relevant host country;
- Providing advice as to how to access buyers and overcome the likely hurdles in the processes;
- Increasing institutional capacity in host country governments, through the development of relevant policy and regulatory frameworks; and
- Providing a short list of projects to be hosted in the UK and support its designated national authority through the decision making process

The UK, as an Annex I party, is likely to *import* CERs. Its experience is relevant here as the UK may act to host projects in a Joint Implementation context, and so will have to put in place similar institutional support as would non-Annex I countries hosting CDM projects. Besides, as mentioned earlier host countries should closely follow these developments, especially in countries with which they have strong economic and cultural ties, to ensure that their interests are not overlooked as the Annex I countries formulate policies relating to the flexibility mechanisms. could include submitting the project applications to the designated national authority for endorsement on behalf of the project developers; and

 Providing guidance on seeking formal approval from the international CDM Executive Board.

Support to project developers will vary according to circumstance, but an important function is clarifying the process the designated national authority will use to decide whether or not to endorse projects. Most governments do not as yet have a coherent public policy that explains the rationale for project eligibility and acceptance. This can be discouraging to potential project participants and may serve as a hindrance to project developers. Potentially beneficial CDM projects may be lost because of perceived – or real – risk and policy uncertainty. In conclusion, project offices can help reduce risk to project developers, and encourage CDM project development by communicating a clear message, and supporting projects through the relevant steps.

The risk of a project failing at the national level, after considerable time and money has been spent, can be minimized by close dialogue between project developers and the designated national authority team throughout the project development process. In this way, likely obstacles to endorsement can be identified well in advance and resolved.

Host countries can also reduce transaction costs by developing standardized baselines for larger-scale projects, if possible. Standardized baselines would require approval by the Executive Board, and once approved, would be applicable to all proposed projects in that specific sector.

CURRENT STATE OF DEVELOPMENT OF HOST COUNTRY CAPACITIES

Managing the CDM process is potentially complex and cross cuts various sectors. Consider, for example, a project in the sugar sector that utilizes cane bagasse to produce energy to convert sugar to ethanol for transport applications. All seven ministries listed in the table above may claim competency to either encourage or regulate this project. Without one clearly designated national authority, however, problems could occur, as in the following example.

Since Kyoto, some governments who have not yet designated national CDM authorities have convened interim committees with various stakeholders from different ministries, businesses, academies and NGOs. In the Philippines, the Inter-Agency Committee on Climate Change was created with representation from various bodies, including the government, universities and commercial interests, including the state-owned Philippines National Oil Corporation. The role of such committees is to identify, consolidate and build expertise and responsibility within host countries. They can also promote understanding of the CDM process and can lead to strategies to efficiently manage the CDM process, as well as to establishment of a designated national authority

Nevertheless, even with establishment of an interim committee, the lack of a designated national authority created an institutional barrier in the recent application for endorsements by two Philippines projects, namely, CAT and Victorias, both of which have been proposed in the sugar sector. The former received a 'Letter of No Objection' from the Inter-Agency Committee on Climate Change. However, as the interagency group is not the legally designated national authority, it did not feel sufficiently empowered to actually issue a 'Letter of Approval'. This had important implications when the Victorias project aimed to bid in the recent Dutch CERUPT round early in 2002. Because the interagency committee was not authorized to provide relevant endorsements, the developers successfully solicited an endorsement from the Energy Secretary. But the managers of the CERUPT tender felt this endorsement was insufficient to proceed, as the Energy Ministry did not have the legal footing or competency to issue formal host country approval.

Sustainable development criteria will vary from country to country. While investors may want to minimize the number of criteria, even a large number may not adversely impact competitiveness – if the criteria are clear and transparent and administered in an efficient manner. A reasonable approach for governments is to choose criteria from the three fields of sustainabil-

⁵ A detailed catalogue can be found in Thorne, S. and E. LaRovere (1999): Criteria and Indicators for Appraising Clean Development Mechanism Projects, Paris. www.pelangi.or.id/database/Artikel/CriteriaPaper.doc

ity: environmental, social and economic.⁵ Even though many countries have defined criteria in the context of the Commission on Sustainable Development's Agenda 21, it is important to develop micro level criteria that are based on the macroeconomic context and are easy to use. Criteria can outline minimum threshold requirements or they can clearly outline the possibility of tradeoffs between various sectors. For instance, a negative rating in one criterion could be more than offset by good ratings in others.

Perception of political risk in the host country can be detrimental to attracting private sector investment. One way to reduce the perception of this risk can be accomplished is through the signing of a Memorandum of Understanding or MOU between the investor and the host country. Such agreements serve as a tangible indication of the government's commitment to pursue the process and can provide great comfort to the investors. This is an important consideration particularly when substantial sums have been invested to develop a CDM project and a CER stream, the success of which is contingent on obtaining a Letter of Approval.

Both the Prototype Carbon Fund and the Netherlands Government – currently the two largest buyers in the market – have signed Memorandums of Understanding with developing countries. As the market matures, governments and agencies are likely to develop more bilateral MOUs to help facilitate the project development and approval process and create greater market confidence. These memorandums can also help set out the priority areas of the host country, and generally contain a number of key features:

- Clear identification of the parties entering into the agreement;
- Affirmation of the voluntary nature of the process;
- Specification of a target amount of CERs to be transferred. In the case of Panama, this was 20 million tons CO₂ equivalent and in the case of Costa Rica, 30 million tons CO₂ equivalent;
- An agreement between the Parties to sell/purchase CERs from projects, assuming that the country has taken on the role of becoming a provider – effectively an intermediary – of CERs for the buyer.

TRANSPARENCY IN THE CDM PROCESS

Transparency is a critical element of the enabling environment that can be influenced by policies. Case studies of foreign direct investment suggest that investors will invest in countries if they are able to obtain reasonable clarity about the policy environment in which they will

BOX 5.2: CRITICAL AREAS FOR BUILDING INSTITUTIONAL CAPACITY

In theory, trading in carbon offsets represents an opportunity for developing countries to attract investments that could further national priorities of sustainable economic growth and industrial development. In practice, such trading is extremely complex and has the potential to impact development trajectories in ways that may be unforeseen and unintended. Shortfalls in analytical and negotiating capacity in developing countries relative to their industrialized country counterparts create a very real possibility that poorer countries will face unfavourable terms of trade.

Many developing countries do not fully comprehend the opportunities and limitations of carbon trading. They need significant support to manage equitable trades and to take advantage of lessons learned of trading experiences in other commodities and contexts. The challenge will likely be greatest for the least developed countries and small island developing states with relatively low carbon emissions, weak infrastructure, and poor investment environment. UNDP advocates an efficient and enabling environment and institutions for the countries that are producers of carbon credits to ensure that they can negotiate favourable terms of trade as equal partners with the private sector and other buyers.

Success in implementing the CDM will require developing capacity within the designated national authorities to

- Identify sustainable development criteria;
- Support project development;
- Create of an enabling environment for efficient CDM approval process; and
- Enable host countries to enter into fair contracts with the potential buyers of carbon.

operate. A clear understanding of the procedural requirements that the developers must follow and the relationship between regulatory and support agencies is very useful. The CDM has addressed this issue by instituting a stringent process with checks and balances, including measures for public participation.

Participation of diverse stakeholders in the development of CDM project proposals is an important element in maintaining transparency as well. Throughout the project development process, parties independent from the project developer can review the proposed project. For example, local stakeholders, operational entities and international stakeholders are external assessors of proposed CDM projects.

A large number of non-governmental organizations are dedicated to ensuring that approved projects meet all of requirements of the CDM and have successfully followed the CDM project cycle. Such groups include the World Wildlife Fund, the World Resources Institute and CDM Watch. These NGOs are a crucial part of civil society and can foster due diligence throughout in the CDM process to ensure that the integrity of the Kyoto Protocol is maintained.

CDM and sustainable human development

As CDM projects are also expected to contribute to sustainable development, it is important that the CDM

BOX 5.3: SOUTH-SOUTH LEARNING BY DOING

Host countries want to ensure that they continue to pursue their own development agenda while participating in the UNFCCC and the Kyoto Protocol. A strong interest to learn from each other by sharing information, knowledge and even technologies is evident. Indeed, there is an enormous amount of accumulated information in the South about technologies appropriate to both sustainable human development and to the relative reduction of atmospheric emissions.

South-south cooperation focuses on sharing experiences, information and proposals. The following are examples of two organizations who are doing just that.

SouthSouthNorth joins the global call to reduce the growing levels of greenhouse gas emissions contributing to harmful climate change and severely threatening the future of our planet. SouthSouthNorth recognizes the vital need for finding viable economic solutions that are sustainable to meet this challenge and builds capacity for the success of one solution, the Clean Development Mechanism of the Kyoto Protocol, or simply, 'the CDM'. They invite all stakeholders and users to participate in their project.

SouthSouthNorth creates information and technology links among southern countries and our northern counterparts to develop the capacity to transact CDM projects to promote sustainable development and reduce greenhouse gas emissions. SouthSouthNorth enables the exchange of information and technology within countries of the south and between these countries and countries of the north. (Excerpted from www.southsouthnorth.org)

CDM SUSAC for Africa, Caribbean and Pacific Countries To achieve investment under the CDM, the Africa, Caribbean and Pacific countries need to streamline their efforts to attract foreign investors. Putting in place national clearinghouse agencies to identify, verify, certify and monitor investments and emissions will go a long way in doing this.

While CDM represents one of the best opportunities for dramatically altering the development paradigm, there will be considerable international competition among developing countries for attracting investment under CDM. Only those countries best prepared, best mobilized, with the most dynamic, streamlined project identification, authorization, verification and monitoring procedures will attract and 'capture' such investment.

It will take fast action in the development of local capacity and transparent identification, verification and monitoring procedures for the Africa, Caribbean and Pacific countries to not only be at the front of the queue for CDM investment, but to actually lead the developing world. The CDM Susac project aims specifically to put in place all the necessary mechanisms for this to occur and it adopts a learning-by-doing, fast track approach over its two year life.

(Excerpted from http://cdmsusac.energyprojects.net/

encourages projects and processes that advance a broader range of development goals, as well as efficient emissions reductions. Three major areas that will assist in this endeavor are:

- Emphasizing small scale projects;
- Seeking out projects that enhance human development; and
- Uncovering opportunities for South-South knowledge transfer.

The designated national authority has the important responsibility of ensuring that individual projects meet the host country's overall sustainable development objectives.

The ability to achieve sustainable development will be improved through small-scale and community development projects in the CDM market (see chapter 4).

In addition to working toward transparency in the CDM process, a growing number of organizations are working to ensure that the CDM contributes to sustainable development while reducing greenhouse gas emissions. Their major emphasis thus far has been on lobbying against projects that will negatively affect local communities and those projects that seem to fall short of meeting the additionality criteria. Examples of two such organizations are the World Wildlife Fund and CDM Watch.

The World Wildlife Fund launched the Gold Standard (see annex 2) at COP-8 in New Delhi. The project was completed in collaboration with a range of environmental, business and governmental organizations. The standard sets forth criteria for projects carried out under the CDM that will ensure that the projects contribute to sustainable development benefits.

CDM Watch is a non-profit organization that monitors CDM projects and provide a clearinghouse for information on CDM projects and CDM related issues and developments. The focus thus far has been on ensuring that projects are truly additional and sustainable. Additional information is available at www. cdmwatch.org.

UNDP supports activities and projects in the developing world that promote sustainable development. UNDP's strategy highlights bringing together the goals of the CDM and sustainable development and implemented in a manner that upholds the integrity of the UNFCCC and the Kyoto Protocol.

The World Bank 1818 H Street NW Washington DC 20433 USA	
Washington DC 20433 USA	
Date	
Dest	[place, date]
Dear	
Letter of Approva	1
[Name of proposed Pro	iect_!
I wish to refer to the request by [Project Spanso considered for funding by the ——(name of Fund).] that the above mentioned project be
As authorized representative of the designa Development Mechanism of [Host Country] I hereby:	ted national authority for the Clean
 endorse the further development of the [nan for the purpose of Article 12 of the Kycto Proix 	e of Project] and approve this project col;
 (b) confirm that the project assists [Host development; and 	Country] in achieving sustainable
(c) approve of the voluntary participation of the [Project Sponsor] in the Project.	IBRD as trustee of the (Fund), and the
By this endorsement and approval [Host Count	y] is committing itself to render such
assistance as may be necessary in the future registration the purposes of the UNFCCC and the Kyoto Protocol, o	h, certification, issuance and transfer for f the emission reductions generated by
the [name of Project], it being understood that furthe Parties to the UNECCC. For this purpose, this designate	r modalities may be developed by the ad national authority will cooperate with
the CDM Executive Board, relevant operational entities	[Project Sponsor], and the IBRD as
objective of achieving issuance of and transfer of CERs fro	m the [name of Project].
[Host Country] agrees that the Fund Manager a may have access to and may provide to IBRD in its differ	nd those working under contract to him
and to relevant operational entities and the CDM Execut	tive Board access to the details of this
Kyoto Protocol. Furthermore, [Host Country] agrees that	it the Fund Manager may divulge such
information to the public, with the exception of any confi- expressly marked as such by [Host Country].	dential or proprietary information that is
For their interest in their matter I will send a copy o	f this letter to [].
This letter of approval is done in two original[s] in the	he English language.
Sincerely	
Ву	
[Name of Signatory]	
[Tibe]	

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