

UNIDO IDB Special Event on the Climate Convention and Kyoto Protocol (Briefing note for Participants)

I. Introduction

Climate change is considered to be among the most serious threats to the sustainability of the world's environment, the health and well being of its people and to the global economy. Mainstream scientists agree that the Earth's climate is being affected by the build-up of greenhouse gases in the atmosphere, such as carbon dioxide, caused by human activities – industrial development, electricity generation, agriculture and transportation. In spite of some lingering uncertainties, a majority of scientists believe preventive and prompt action is necessary.

The international response to climate change took shape with the development of the United Nations Framework Convention on Climate Change (UNFCCC). Agreed to in 1992, the UNFCCC set out a framework for action to control or cut greenhouse gas emissions. Since the UNFCCC entered into force in 1994, five meetings of the Conference of the Parties have taken place, as well as numerous workshops and meetings of the UNFCCC's subsidiary bodies.

A Protocol to the Convention was adopted in 1997 at the Third Conference of the Parties, held in Kyoto. Although it has yet to enter into force, the UNFCCC's Kyoto Protocol commits industrialized countries to achieve quantified targets for decreasing their emissions of greenhouse gases. It also makes provision for the involvement of developing countries and countries with economies in transition through the “Mechanisms” of the Kyoto Protocol whereby developed nations acquire carbon reduction credits from projects which control or cut greenhouse gas emissions undertaken in other countries

The Fourth Conference of the Parties, held in 1998, adopted the Buenos Aires Plan of Action that set a two-year deadline for strengthening the UNFCCC and preparing for the future entry into force of the Kyoto Protocol. The Parties have since been examining the multiple issues raised by that Plan and negotiations taking place during this year are considered crucial, as the deadline for completion of the Buenos Aires Plan of Action is the Sixth Conference of Parties, scheduled for November 2000 in The Hague, the Netherlands.

UNIDO must identify appropriate options to respond to the new business opportunities arising out of the Climate Convention and that are expected to be created by the Kyoto Protocol after the Hague Conference. The focus of UNIDO's attention could, for instance, be on some aspects of the Kyoto Mechanisms as well as on our more 'traditional' role assisting our client countries with technology transfer and capacity building.

II Key Issues in the Kyoto Protocol and UNIDO's response.

The Clean Development Mechanism (CDM) and Joint Implementation (JI) 'mechanisms' of the Kyoto Protocol, for the first time provide an *incentive for developed countries to accelerate their transfer of clean, energy-efficient industrial technologies* to developing and transition economy countries.

This incentive derives from their commitments under the Protocol to decrease emissions of greenhouse gases and the opportunities they have to meet some of these commitments by financing greenhouse gas reduction measures (projects) in developing and transition economy countries under the Mechanisms.

Although large uncertainty about the rules governing the CDM still exists, studies indicate that potential annual investment for this mechanism alone could be between \$1 and \$5 billion.

By addressing the dual objectives of promoting sustainable development and reducing or avoiding greenhouse gas emissions through international cooperation, the project-based mechanisms of the Kyoto Protocol (CDM & JI) provide incentives to accelerate the deployment of clean and energy efficient technologies. The Mechanisms create new opportunities to help close the gap between the technology "haves and have-nots" and to generate opportunities to productively engage stagnating, low income communities in the globalization process.

It was in this respect that UNIDO sponsored the attendance of industry representatives at the recent 13th Session of the Convention's Subsidiary Bodies so they could present the results of studies on industry, the CDM and sustainable industrial development. At a side event and in individual discussions with delegates, the African experts, engaged by UNIDO, described potential industrial CDM projects identified in their countries and helped many think further about 'equity' in the allocation of CDM projects for the region.

Other UNIDO activities in support of the Climate Convention intergovernmental process are outlined in the attached annex. They fall into the three broad categories of capacity building, technology assessment and methodology development.

Also, UNIDO's energy-related Service Modules on energy efficiency and sustainable rural energy development contribute to both sustainable development and decreasing greenhouse gas emissions. The accelerated introduction of clean energy supply systems to meet the needs of rural (and, for that matter, often urban) populations address both poverty alleviation and the avoidance of future greenhouse gas emissions. The accelerated introduction of energy efficient industrial processes and equipment will improve the competitive position of developing country industry and control greenhouse gas emissions.

Of critical importance in the climate debate is the position of Convention Parties that implementation of the Kyoto Mechanisms should be *private sector led*. UNIDO's involvement will therefore require innovative partnerships with the private sector.

III. Issues for discussion and dialogue

Member States are invited to consider the following opportunities for UNIDO to assist client countries take advantage of the Kyoto Mechanisms. They fall into two broad categories of activities:

- support to the governance structure of the Kyoto Mechanisms, primarily for the Clean Development Mechanism (CDM).
- support to the development, promotion and implementation of Kyoto Mechanism projects.

Option 1. Support to the governance structure (primarily for the Clean Development Mechanism).

- *Activities*

The text of the Kyoto Protocol makes provision for the establishment of an Executive Board for the CDM. This Executive Board will operate through other bodies (operational entities) that will perform technical functions such as verification and certification of emissions reductions arising from CDM projects. The Board will itself only meet a few times per year and take executive decisions. UNIDO could provide impartial expert advice on methodological issues for industry-related projects, including procedures for the determination of additionality and calculation of emissions reductions, possibly through one or more advisory panels, which could be established under the Executive Board.

UNIDO could also be responsible for the preparation of technical background and analytical information for the approval of new baseline procedures and validation and verification of projects as eligible CDM projects.

Such roles are in line with the Organization's intended increase in the delivery of 'normative', global forum type services.

- *Resources required*

This option implies a high level of accountability to the Executive Board and the Parties to the Convention/Protocol who would be UNIDO's clients. It would require a team of dedicated technical specialists with extensive knowledge of industrial energy issues, particularly energy end-use efficiency in energy-intensive industry (process/manufacturing/raw materials), manufacture, installation and operation of renewable energy systems as well as policies and measures for stimulating both industrial energy efficiency and the accelerated deployment of renewable energy and advanced energy technologies. The team would also need to include specialists in the methodological aspects of evaluating CDM projects, particularly the determination of emissions reductions and the use of tools required for these tasks.

Depending on its level of involvement in the CDM's governance structure the Organization's advice and reports would be subject to a greater degree of peer review and public scrutiny than is currently the case for its work. Provision would need to be made to accommodate this requirement.

- *Income earning potential for UNIDO*

This is a *new market for UNIDO's services*. This option offers a new high-profile, high value-added role for UNIDO with potential for new income.

Option 2. Support to the development, promotion and implementation of Kyoto Mechanism projects.

- *Activities*

This option is an extension of UNIDO's current energy-related technical assistance activities, which promote sustainable industrial development and control the growth of industrial greenhouse gas emissions. It also creates opportunities for UNIDO's investment promotion capabilities.

The work would involve the development of (portfolios of) eligible projects, securing their approval by an Operating Entity and implementing them in cooperation with the investor. Activities would be similar to UNIDO's current (including GEF) project portfolio. In contrast to option 1, UNIDO's client(s) for this option would be the project partners (host and/or investor) seeking assistance in project development/implementation.

Making use of its existing experience in furthering investments in industrial projects (Investment Promotion Programme and Offices), as well as its technical networks (e.g. National Cleaner Production Centres and a variety of technology centers), UNIDO could also "promote" and broker industrial Kyoto Mechanism projects that reduce emissions of greenhouse gases. Project descriptions, including estimates of emissions reductions, could be circulated to potential investors through the UNIDO IPS network. Placement of CDM host country officials in IPS offices, their attendance at investment fora and other relevant center/network-organized events could also be employed to facilitate matching potential CDM project partners.

This is the 'default option' as the Organization has long been active in supporting client countries in all aspects of their industrial development, in recent years concentrating on industrial energy and environmental concerns and more recently adding Kyoto Protocol-specific assistance, particularly in capacity building, methodology development and technology assessment (see annex).

This option is partly global forum in nature and partly operational (project implementation). However, considering that the Kyoto Protocol will be going through a 'formative' phase for many years to come, UNIDO's involvement can still be considered as normative.

- *Resources required*

Existing UNIDO technical assistance, investment, national cleaner production centers, and other networks and technology centers could be utilized, requiring awareness raising and training programmes for staff on the Climate Change/Kyoto Protocol intergovernmental process, particularly the Kyoto Mechanisms. Extra staff and resources may be needed at HQ and in partner centers.

- *Income earning potential for UNIDO*

This is a new business opportunity (product) in the existing market for UNIDO's services offering progressive additions to current income levels. For example, a new source of income could come from fees charged for matching services but this will require labor-intensive work by UNIDO and its partner centers.

Observations on the two options

It cannot be assumed with certainty that the Kyoto Protocol in its current form will enter into force, in which case the first of the foregoing options may no longer be relevant.

Development and implementation of industrial projects which cut greenhouse gas emissions - the second option - would still be required but projects would not be carbon credit-earning CDM or JI (i.e. Kyoto Mechanism) projects.

In the absence of a protocol Parties will still need to demonstrate their commitment to worldwide greenhouse gas emissions reductions and sustainable development by taking a more proactive approach to the provisions of the Climate Convention itself. Even if the Protocol does not enter into force, Parties can be expected to increase their efforts to support climate-friendly technology transfer and capacity building. Articles 4.5 and 5 of the Climate Convention - which is already in force - require this.

To a certain extent the two options described above may be mutually exclusive due to potential conflict of interest. Involvement in regulatory aspects of the Kyoto Mechanisms (advising governance bodies) could preclude involvement at the project development/promotion/implementation level.

Concerning the second option, since implementation of the Kyoto Protocol Mechanisms will be private sector-led, UNIDO's involvement in commercially attractive projects *per se* will not be welcomed by private sector CDM investors. On the other hand, least developed countries are unlikely to attract significant private CDM investment without support from public sector bodies to build the necessary capacity. Developing and emerging economy countries could, therefore, benefit from UNIDO's assistance with the development, implementation and promotion of projects.

Annex-A.

UNIDO's Current Climate-related Programme.

UNIDO Integrated Programmes - Nigeria

UNIDO's Kyoto Protocol Branch participated in the programming mission to Nigeria and subsequently developed the following two components for Integrated Programme No.3 (Environment & Energy) under the Country Service Framework: 'Capacity Mobilization to Enable Industrial Projects under the Clean Development Mechanism', that builds upon the project outputs of the regional programme mentioned under 'projects' below; and 'Energy and Environment Information System' (EEIS) that will provide information system support to the Clean Development Mechanism component as well as to other components of Integrated Programme No.3 and other Country Service Framework Integrated Programmes in an integrated manner. It is expected that implementation of both components will start in the second half of this year utilizing UNIDO and Nigerian cost-sharing start-up funds.

Projects (capacity building)

An inter-agency project funded by the UN Foundation (Turner fund) in which UNIDO will work in cooperation with other UN agencies to develop capacities to launch Clean Development Mechanism projects in the industry and energy sectors is underway. UNIDO will engage private sector and other stakeholders in the "learning-by-doing" activities in project identification, formulation and promotion with the view to develop and strengthen capacities necessary for operating the CDM and for identifying, assessing, formulating and promoting CDM project opportunities in the industrials sector. The longer-term development objective is to elaborate and test internationally acceptable methodologies, mechanisms and tools for the formulation, development and promotion of industrial CDM projects.

UNIDO has completed the first phase of a regional programme for African industry. The programme will prepare capacity building projects to support the operation of the CDM, through, *inter alia*, assistance in all background work required to prepare industrial CDM proposals for submission to donors. Cooperation has been established with experts and institutions in 6 African countries. Activities in 2000 will prepare a regional programme on the CDM for industry in Africa.

Studies

A study on "Guidelines to Support Decision-making on Baseline-setting and Additionality Assessment for Industrial Projects". The objective of the study is to provide a foundation for the development of a methodological tool that supports the analysis of data and information for setting emissions baselines for industrial projects undertaken in the context of Articles 6 and 12 of the Kyoto Protocol. In parallel to that work, UNIDO's computer application 'IDENTIFY' was extended to handle the quantitative aspects of establishing baselines for industrial projects under the Protocol.

Technology assessment

(a) Cogeneration

An expert group meeting on cogeneration was organized in December 1999 with the view to assessing the potential of cogeneration technologies as candidates for the Kyoto Mechanisms projects. The meeting brought together industry professionals, planners and policy-makers as well as representatives of NGOs and industrial associations from 18 developing countries and economies in transition. It provided a forum for addressing a number of key issues (e.g. barriers to deployment, capacity building, baselines and additionality assessment) in facilitating the uptake of new low-emissions technologies and in using the CDM/JI to extend carbon reduction investment to support their deployment in developing countries and economies in transition. .

(b) Clean coal technology

A workshop on clean coal technologies for Africa has been developed. The workshop will assist policy makers in the region to assess fully the relationship between coal utilization for power generation and the decision to pursue a clean development path in line with the objectives of the UNFCCC. It will also assess clean coal technologies as technological opportunities for the mitigation of GHG emissions resulting from coal combustion and prospects for their implementation as CDM projects.

(c) Rural Energy

UNIDO will support the first meeting of the “Global Forum for Sustainable Energy” (GFSE) to be held at International Institute for Applied Systems Analysis (IIASA) in December 2000. The meeting will address rural energy development. The GFSE is a multi-Agency coalition dedicated to bring together major players in energy development to build partnerships and consider the necessary action to improve the delivery of energy services so as to foster sustainable development.