

However, it may be recommended that CDM protagonists do not wait with conceptualizing and pre-designing potential CDM projects until the structure of the CDM is completely defined, operationalized and demystified. As it takes quite some time before projects are fully designed and implemented, part of the CDM potential could be lost while waiting for the outcome of international negotiations. In this respect, despite the shortcomings of the AIJ phase, the CDM could use the practical lessons and ideas learned from AIJ pilot projects. This could make early implementation of CDM projects less risky.

Once CoP has defined the final rules, regulations and operational strategies, changes in the design of projects can still be made, at least on paper. It is hoped that the operationalization of the CDM would to a considerable extent be completed late 1999. This would facilitate the start of the CDM in the year 2000. The efforts made by the ad hoc International Working Group on the CDM supervised by UNCTAD, UNEP, UNDP and UNIDO could contribute to this.

### The role of African business

The link in Article 12 between sustainable development in non-Annex I Parties and the objective of abating, sequestering or avoiding anthropogenic emissions of GHG is rather strategic. It may help to provide an incentive to non-Annex I Parties to participate actively in the Kyoto Protocol. However, in order to fully benefit from CDM it is crucial that all stakeholders in developing countries are fully engaged in the implementation of the mechanism. This implies that the discussions on CDM in potential host countries should not be restricted to government circles and NGOs only but should also engage commerce and industry in these countries.

However, as regards African countries most negotiation delegations at the several sessional meetings of the FCCC bodies and its allied institutions consist mainly of government officials, NGOs, and researchers. African business has virtually been absent at these meetings and at other workshops organized to address FCCC-related aspects. Hopefully, this absence is not a token of disinterest of African business in the realization of the objectives of the FCCC.

In my view, business leadership in Africa must play a vital role in the process of formulating abatement policies. Given the potential offered by CDM, the time is ripe for African business to build

capacity for the implementation of CDM projects. Business should not wait until CDM has become operational but should act proactively. In order to stimulate this, governments need to create the required incentives and the conducive environment for business to enable African commerce and industry to participate in the abatement of GHG by CDM.

For the African business it is important to note that CDM gives companies the opportunity to benefit from energy efficiency, energy conservation, and sustainable development measures carried out in the framework of CDM projects. Irrespective of GHG abatement resulting from the projects, these measures are financially interesting and profitable to business. On the African continent business owns most of the industries that emit GHG and also owns some of the sinks that sequester GHG. It may be noted that although Africa has not contributed much to the build-up of anthropogenic GHG in the atmosphere, the continent could benefit greatly from the GHG abatement efforts of Annex I Parties through CDM. When operational, the CDM may assist Africa and its business to take this advantage. National climate change institutions and environmentally inclined NGOs in Africa must also be engaged in the process of inducing and arousing the interest of African business leadership in the CDM.

### The way forward

In this contribution, it is advocated that African business should take a more proactive stance in climate protection issues. Businesses in Africa must build and strengthen the right human and institutional capacity to design the necessary strategies and action plans to facilitate cleaner development and production. Governments must set a good example by introducing energy efficiency and energy conservation practices in their existing buildings through retrofits. In addition, they must ensure that new spatial development initiatives are executed with noticeable climate conscious design. Thus far, Africa has not gained from her 'wait and see' attitude to certain global issues. Now is the right time for everyone to start thinking about how to convert the CDM into business opportunities on the African continent.

*Joe Asamoah, Director, Omega Scientific Research, PO Box 101847, Moreleta Plaza 0167, South Africa, tel./fax: +27 12 997 0674, e-mail: joasa@smartnet.co.za*

## Voluntary Commitments for Non-Annex I Countries?<sup>1</sup>

*By Anne Arquit Niederberger, Swiss AIJ Pilot Program, and Samuel P. Mauch, Mauch Consultants, Oberlunkhofen, Switzerland*

**The Berlin Mandate (FCCC/CP/1995/7/Add.1) explicitly prohibited the introduction of any new commitments for non-Annex I Parties. For this reason, an article in the draft negotiating text that would have allowed developing countries to take on voluntary commitments was rejected and deleted from the final text on the occasion of CoP3 (Kyoto, December 1997).**

On the other hand, the US Congress has stated that it will not approve US ratification of the Kyoto Protocol until such a time as key developing countries also demonstrate 'meaningful participation'<sup>2</sup>. Although the latter has not been clearly defined, the USA and several other countries (and experts) continue to propagate voluntary QELRCs for non-Annex I countries.

One of the major arguments for developing countries to consider taking on voluntary commitments<sup>3</sup> is that IET is limited to Annex B

countries of the Kyoto Protocol. Through access to IET, developing countries expect increased transfer of revenue, investment and technology from industrialized countries, and it is commonly assumed that the benefits from allowance trading would be greater than the benefits from participation in the CDM. These purported advantages focus on the short-term financial benefits that developing countries might realize as a result of participation in the IET market. This article argues that, on balance, these alleged advantages may well be outweighed by uncertainties and

<sup>1</sup> The views expressed in this paper are those of the authors and do not necessarily represent the official position of the Swiss AIJ Pilot Program or the Government of Switzerland. For inclusion in this special issue of *JIQ* the article has been shortened somewhat. If you wish to receive the full text, please contact the authors or the *JIQ* editors.

<sup>2</sup> Without US ratification, the Protocol will likely not enter into force, since 55 countries that also account for 55% of total Annex II emissions of CO<sub>2</sub> in 1990 must ratify the Protocol for it to enter into force.

<sup>3</sup> Hoping to become eligible as an Annex B country.

disadvantages, and that the discussion of voluntary commitments has ignored to a great extent the broader development context of the FCCC, which is of utmost importance to these countries. Despite the fact that it will be impossible to achieve the ultimate objective of the FCCC without also limiting the expected growth in emissions from developing countries, this article raises a number of issues with respect to voluntary commitments for non-Annex I countries, in particular with respect to inclusion in Annex B of the Kyoto Protocol.

### Some considerations

Some of the assumptions made by proponents of the involvement of developing countries in IET deserve critical review, for example:

- Depending on the design of the Art. 17 trading system, trading assigned amount units could involve the risk of overselling emission rights, which might result in various types of sanctions under the compliance regime of the Kyoto Protocol.
- Generation of excess assigned amount units that would put a developing country in a position to trade under Art. 17 will have to be achieved by putting in place domestic policies and measures to limit emissions. Such an active climate policy – desirable from a global climate protection perspective – will have implications for human and financial resources, for institutional requirements and for enforcement capabilities. Thus whereas trading under Art.17 may theoretically lead to higher trading volumes than the CDM, the critical factor in achieving this potential remains the capacity of a given developing country to implement concrete climate protection measures (such as an energy tax) or to plan, design, finance and monitor specific mitigation projects, not whether CDM or IET is applied. In countries where human resources are limited, there is no difference between the IET and CDM (or JI) regimes with regard to the supply of offsets.
- Whereas CDM investments can flow directly into CDM projects beginning in 2000 and will result in technology and know-how cooperation, the fate of income from sales of parts of assigned amounts under Art. 17 is unclear and may not necessarily contribute to technology transfer and sustainable development.
- Membership in Annex B does not automatically make countries eligible for emission trading, since there is general agreement that certain eligibility criteria will have to be met by Parties that wish to trade under Art. 17. This means that a developing country could take on legally binding QELRCs, but still not have access to the IET market.
- It could be costly and time-consuming for many developing countries to establish the necessary data, institutional and legal prerequisites for IET participation, including rigorous national emission inventory systems that meet the standards required under Art. 5 and adequate domestic legislation and institutions (in particular, if private sector trading were allowed). For many developing countries, such prerequisites would be much more difficult to fulfill than those needed to cooperate in the management and monitoring of climate protection projects under the CDM. In addition to these up-front costs, there will likely be recurring costs associated with verifying (and certifying) that annual national emission inventory data meet agreed international standards<sup>4</sup>.

Thus, whereas the order of magnitude of transaction costs associated with individual CDM projects is relatively well known, the up-front and recurring transaction costs to establish a domestic regime to participate in IET, to implement policies and measures to

<sup>4</sup> Although Art. 5 requires only Annex I countries to have national systems for emission inventories, it is likely that rules for emissions trading under Art. 17 will require all Annex B countries that wish to trade under Art. 17 to meet the same standards.

### Abbreviations

AIJ	Activities Implemented Jointly under the pilot phase
Annex B	Annex to the Kyoto Protocol listing the quantified emission limitation or reduction commitment per Party
Annex I	Countries which have committed themselves to a quantitative CO <sub>2</sub> target (OECD, Central and Eastern European Countries, listed in Annex I to the UNFCCC)
non-Annex I	Countries without a quantified CO <sub>2</sub> commitment
CDM	Clean Development Mechanism
CoP	Conference of the Parties to the UNFCCC
ERU	Emission reduction unit (Article 6 Kyoto Protocol)
FCCC	UN Framework Convention on Climate Change
GHG	Greenhouse Gas
IET	International Emissions Trading
JI	Joint Implementation
QELRCs	Quantified Emission Limitation and Reduction Commitments
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBI	Subsidiary Body for Implementation

generate excess assigned amount units and to ensure the credibility of national emission inventories have not been systematically documented and could be substantial. This is a significant source of risk for developing countries considering to take on voluntary commitments.

### Conclusions

The FCCC represents a careful balance between local development and global environment objectives. For obvious reasons, developing countries accord greater priority to the former objective. On the other hand, all countries must play their part to combat climate change, if we are to achieve the ultimate objective of the FCCC. It is therefore crucial that equity and sustainable development considerations guide the further evolution of the FCCC. The principles of the FCCC recognize common, but differentiated responsibility, because industrialized countries have historically contributed the most to increased concentrations of GHG in the atmosphere and because per capita emissions are much higher in industrialized than in developing countries.

It will therefore be important for Annex I countries to demonstrate progress towards stabilizing and then lowering their emissions and for all Parties to embrace the general concept of long-term convergence of per capita emissions. Before rushing to take on voluntary commitments under Annex B of the Kyoto Protocol, developing countries should undertake a careful analysis of the advantages, disadvantages, risks and short- and long-term implications of such a fundamental decision on the potential of their economies to develop sustainably in the future.

*Ms Anne Arquit Niederberger, Swiss AIJ Pilot Program, Effingerstr. 1, CH-3003 Berne, Switzerland, tel.: +41 31 323 08 85, fax: +41 31 324 09 58, e-mail: anne.arquit-niederberger@bawi.admin.ch*

*Mr Samuel P. Mauch, Mauch Consulting, Ruchweid 23 CH 8917 Oberlunkhofen, Switzerland, tel.: +41 56 634 30 58, fax: +41 56 634 31 40, e-mail: mauch@diel.eunet.ch*