

Funding for clean technology through the Climate Convention

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Introduction

Climate change is one of the greatest environmental threats that faces humanity over the coming centuries. The main causes are the burning of fossil fuels such as coal, oil and natural gas, which lead to emissions of greenhouse gases such as carbon dioxide, methane and nitrous oxide, together with deforestation. Although climate does fluctuate with time anyway, the man-made increase in greenhouse gas levels in the atmosphere is expected to produce a warming of the earth which could result in major changes in sea level, storms, flooding and droughts, and in agricultural changes. This could lead to a huge increase in the number of people left vulnerable to these global disasters.

Under the Climate Change Convention, agreed in 1992 at the Earth Summit, countries agreed to prevent 'dangerous' climate change by controlling emissions of these greenhouse gases (GHGs). In 1997, countries agreed on a set of actions to be carried out by the period 2008-2012, called the *Kyoto Protocol*. In particular, this protocol set a target of a 5% reduction from the 1990 emission levels by this time for all industrialised nations.

In addition to these commitments, a number of routes for extra funding for developing countries have been agreed, the details of which are still under discussion. This article reports the latest on this discussion, following the continuation of the climate negotiations at the recent conference, called the 'COP6', in The Hague in The Netherlands in November, 2000.

Sources of funding

There are three new sources of finance for developing countries

Financement de technologies propres à travers la convention sur le changement climatique.

L'auteur se pose la question de savoir dans quelle mesure les nations du monde vont honorer leurs engagements au protocole de Kyoto sur le contrôle des émissions de gaz à effet de serre. Les auteurs abordent la question des fonds supplémentaires pour les PVD afin de promouvoir les technologies propres. Trois sources de financement dont le Mécanisme de Développement Propre sont expliquées.

under the *Kyoto Protocol* which together are expected to reach billions of US dollars per year. They are the:

- *Clean Development Mechanism* (CDM)
- *Convention Fund*
- *Adaptation Fund*

They are designed to be available to all developing countries.

Clean Development Mechanism

The *Clean Development Mechanism* (CDM) will allow industrialised countries to fund projects in developing countries which reduce greenhouse gas emissions. These could include introduction

of renewable energy technologies (wind, solar, biomass, hydro etc), or increasing energy efficiency. In return the industrialised country will receive 'carbon credits' which they can use towards their targets.

There are two criteria which CDM projects will have to meet.

1. They will have to lead to a reduction in GHG emissions which is greater than that which would have otherwise happened – this is known as *additionality*
2. They will have to 'contribute to sustainable development'.

Exactly how these are to be assessed is still to be decided: however, we can describe the

Box 1: Example of a possible CDM project

Criterion 1

Project developers need to give reasons why the project might not have happened without the CDM. Reasons could be, eg, lack of finance or lack of local expertise in the technology. The developers would then have to estimate the GHG emissions under the situation where the project was not carried out. This is called the baseline. In our case of the micro-hydro plant, it is likely that the situation without the project would be that the lighting would be provided by kerosene lamps, which give off carbon dioxide during operation. Since the project is being carried out in a rural area, it may be that this situation would persist for maybe 15 years before any changes were made. Hence the GHG emissions reduction which is attributable to the project is the carbon dioxide emissions of the kerosene lamps over 15 years (since the micro-hydro plant emits no GHGs during its operation).

Criterion 2

There should be some evidence of the 'contribution to sustainable development'. This could be the quantitative or qualitative social, environmental and economic benefits of the project. For example, a social benefit could be that the better lighting allows children to study in the evening, improving their level of education. An environmental benefit could be the reduced local air pollution from not using kerosene lamps in the home. An economic benefit could be that the annual cost to each household of the electricity from the micro-hydro plant is less than that spent on kerosene.

basic process by using the example of a micro-hydro project providing electricity for lighting in a rural village (Figure 1).

For someone developing a CDM project, the CDM process will probably work in one of three ways. The first way is where a company in an industrialised country which wants to export 'cleaner' technology agrees to set up an activity, eg a micro-hydro plant, in a developing country. The company will have to reach an agreement with authorities in the developing country (known as a *host* country) that this project can go ahead.

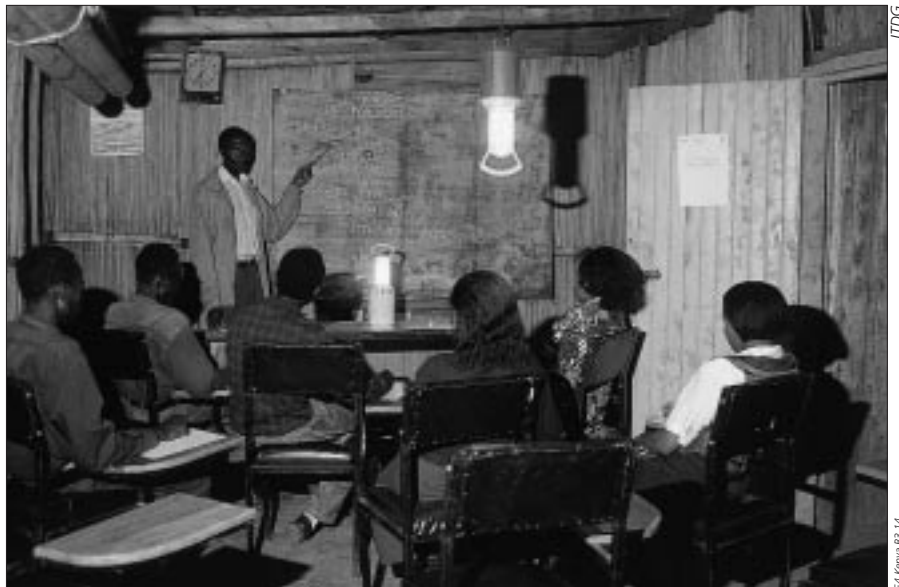


Figure 2: Raising awareness of the need for forest management

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Figure 1: Electric lighting from micro-hydro reduces GHG emissions

The second way in which the CDM might operate is where a company in a developing country which wants to expand its production of a 'cleaner' technology obtains funding from a source in an industrialised country (known as a *donor* country).

An alternative to these types of arrangements is where a single organisation acts for a group of investors and funds several different projects (perhaps even in different countries).

Convention Fund

A further source of funding which is currently under discussion in the climate negotiations is the *Convention Fund*. It is intended

that this fund would be available for capacity building measures both in former Eastern bloc countries and in developing countries. It would be administered by the Global Environmental Facility (GEF), a World Bank programme.

The aim of this fund would be for training people and raising awareness as well as to set up institutions and procedures in host countries to help the transfer of cleaner technologies, either through the CDM or through more conventional means.

Examples of particular relevance to *Boiling Point* reader are things like training workshops for businesses/community groups which may wish to collaborate in a CDM project, or workshops for organisations (eg environmental groups) which may be interested in carrying out the independent monitoring of CDM projects.

Adaptation Fund

Another source of funding under discussion is the *Adaptation Fund*. This is a trust fund for helping communities to make changes at field level to adapt to the effects of climate change. Again it would be administered by the GEF.

There are several types of projects which might be funded through this fund. It may, for example, be used to help increase coastal defences to guard against increased flooding.

If this is not viable, then it could be used to help relocate people whose homes are threatened from flooding. It could also be used to help increase the more general storm preparedness of communities.

Another area that would be funded is forestry, such as avoidance of deforestation. Forests can provide many benefits to local communities, eg as a source of food or fuel-wood, or in preventing soil erosion. They are also under threat from changes in climate, eg increased temperatures or decreased rainfall, hence some form of forest management scheme may be necessary to help them adapt to new conditions (Figure 2).

Future developments

At the recent COP6 conference, climate negotiations in The Hague in November 2000 broke up without agreement. As a result the full details of the three funding routes described above are still not clear. The negotiations are due to be concluded during a conference to be held between July 16-27, 2001. Hence it could be some time before the funds start to flow. However, there is a lot of pressure for this to happen, especially given the large number of climate-related disasters which have happened in recent years. 🌿

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