

# Factsheet

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## REDD – Reducing Emissions from Deforestation and Degradation in Developing Countries

### Scenario

At the 11th Meeting of the Parties to the UN Framework Convention on Climate Change (COP 11), Papua New Guinea and Costa Rica, supported by several developing countries, tabled a proposal for including emissions from avoided deforestation in any compensation scheme under the UNFCCC. It leaves open whether that should happen under a separate forest protocol or as a part of an overall post-2012 protocol under the Convention. The proposal argued that time is pressing for the last natural forests, and that including deforestation avoidance would help to integrate developing countries into the efforts to reduce greenhouse gas emissions. The proposal was welcomed by most Parties.

Forests cover approximately four billion ha or 30% of the Earth's land area. Gross annual deforestation is 13 million ha, equivalent to nearly 1% annual losses of the world's primary forests (1,439 million ha). Forests represent a carbon pool of 1,037 Gt CO<sub>2</sub>, which is more than the CO<sub>2</sub> amount in the atmosphere. Deforestation is the second single important source of greenhouse gas (GHG) emissions, estimated to be responsible for approximately 20% of all human-induced CO<sub>2</sub> emissions, two thirds of this effect being attributable to the loss of tropical forests.

Deforestation is expected to lead to micro-climatic changes, biodiversity losses, and changes in the water regime. As an aggravating feedback effect, climate change itself may lead to a die-off of forests in tropical areas, which could trigger a chain reaction that is difficult to stop.

The majority of deforestation and forest degradation is due to the direct and indirect effects of policies outside the forestry sector as well as socio-cultural factors. For the



individual agent, the over-use of forest resources follows economic rationality, sometimes sustained by traditional land use patterns. Unchecked deforestation and forest degradation are usually symptoms of poor governance and legal uncertainty. As a rule, for individuals, deforestation is profitable – however, it inevitably leads to macroeconomic welfare losses.

### Projects

So far, a wealth of experience has been gathered and important lessons can be learned from past projects geared towards forest protection and sustainable forest management. However, REDD stands for a new approach within international development assistance.

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Federal Ministry  
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Two of the most outstanding programmes are:

The **Pilot Program to Conserve the Brazilian Rain Forest (PP-G7)**, planned in the late 1980s, launched at the Rio Conference on Environment and Development in 1992, and started in 1995. The PP-G7 has been implemented jointly by Brazil and seven donor countries (one of them being Germany, which has contributed over 80% of the budget of USD 428 million). The program's objectives are as follows:

- Experimenting with and demonstrating ways of protecting Brazil's rain forests and using them in a sustainable fashion
- Protecting and conserving rain forest natural resources
- Strengthening civil society and public institutions involved in environmental protection of Brazil's rain forests
- Supporting scientific research and disseminating findings to conserve Brazil's rain forests.

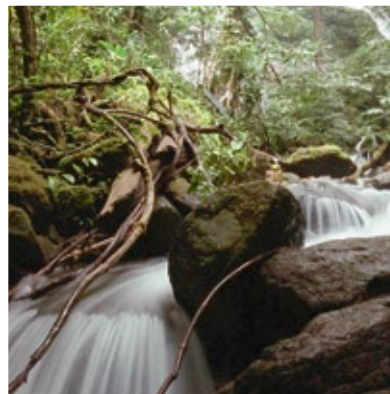
Experiences gathered in the PP-G7 are used in the Amazonian Protected Areas Project (ARPA) which has the aim to create and consolidate conservation areas of at least 50 million ha until 2012.

The **COMIFAC** (Commission Forestière de l'Afrique Central), created in 1999, is an initiative of ten Central African Congo Basin countries, with support by international donors, including WWF, the World Conservation Union, FAO, the World Bank, the European Commission and Germany. Its lines of action are:

- Resource inventory and valorization of forest resources
- Ecosystem management, reforestation and biodiversity conservation
- Employment alternatives and poverty reduction
- Regional cooperation and partnerships, capacity building, research and development
- Development of financing mechanisms and harmonization of forest and fiscal policies.

COMIFAC may in future constitute an example for REDD that even avoids international leakage.

Due to different regional coverage and advancement of the efforts described, no judgement can be ventured at this time as to which approach is most promising. Challenging pilot projects, supported by Germany and specifically designed for REDD activities, are under preparation in Madagascar and Cameroon.



## Impact

Today, a sector-wide approach on REDD is being discussed, whereby a country as a whole voluntarily commits itself to limit its forest carbon emissions.

Costs of REDD are extremely region-specific. Estimates found in literature indicate that annual payments in the range of USD 10 billion would enable deforestation emissions in developing countries to be reduced by half. This amount of money corresponds to 0.02% of 2005 world GDP and 13% of total official development assistance. However, traditional or voluntary funding mechanisms will hardly be able to provide the finance needed for effective REDD.

Carbon incentives for responsible forest management in developing countries will preserve valuable carbon and biodiversity pools. At the same time, protected forests deliver significant co-benefits for local and regional development, potentially including adaptation to inevitable climate change for the local population. REDD therefore fulfils important development goals.

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## The Voluntary Emission Reduction Market: Characteristics, Risks and Opportunities

Greenhouse gas (GHG) mitigation has been the focus of the political and public debate on climate change. Under the Kyoto Protocol, the EU has established mandatory reduction targets for its electricity, steel and cement producing industry. These companies can reduce the amount of GHGs within their own production process or make use of the Clean Development Mechanism (CDM). As a flexible instrument of the Kyoto Protocol, the CDM allows emission reduction projects in developing countries to generate certified emissions reductions (CERs) as long as host countries feel they promote sustainable development. Companies which want to become carbon neutral or individuals who want to offset their emissions through a project in developing countries can define their own rules for voluntary emission reductions (VERs).

### CDM – A Certificate Market under UN Supervision

The CDM process is relatively transparent and produces emission certificates with a fairly high quality. This is due to the oversight by the CDM Executive Board (CDM EB), which consists of ten elected members representing the different groups of Kyoto Protocol member countries. However, it has been criticized for the high level of transaction costs that occur before any certificate is issued. The costs can reach up to several hundred thousand US dollars per project. Estimates show that even a small-scale CDM project has to generate at least 8000 CERs per year to compensate for the transaction costs.

A CDM project requires a clearly determined baseline and a solid calculation as well as monitoring of GHG emission reductions, based on a methodology approved by the CDM EB. The development and approval of new methodologies can take up to two years, with project developers facing a substantial risk of rejection. One of the key criteria a project has to fulfil is additionality. This means that the project would not have happened without the additional revenues generated through the CERs. Moreover, a CDM project must secure the approval of the host country whose sustainable development it is supposed to assist.

A third party, accredited by the CDM EB, determines whether all these requirements are met for a project. It verifies the monitoring of CDM projects and confirms by how much GHG emissions have been reduced. For each verified tonne of reduced carbon dioxide equivalent, the CDM EB issues a CER certificate. So far, 40 million CERs have been issued and over 1.6 billion are in the pipeline.



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## The Voluntary Market – More Flexibility and More Risks

Companies or individuals who are interested in VERs are not part of the Kyoto Protocol-driven, mandatory reduction efforts. They offset their emissions or decide to become carbon neutral because of corporate social responsibility, marketing interests or moral issues. This enables them to choose whether to engage in the CDM or in the voluntary market.

While CDM projects have to comply with a variety of different rules, VER projects have freedom and flexibility. Many steps in the approval, monitoring and verification process can be left out. This keeps the transaction costs low. But it also makes the quality of certificates question-



able. Key issues such as additionality, permanence, leakage or environmental and social impacts might be neglected. At present, the VER market is much smaller than the CER market, reaching only a few million VERs in 2006.

In contrast to the CDM market, which has one authority that sets standards and regulates the market, the voluntary market is highly diverse. A wide range of companies and non-profit organizations offer VER certificates and use a number of different standards. The *Gold Standard* and the *Voluntary Carbon Standard* are the most prominent examples of voluntary carbon offset standards. This variety and the fact that VERs are not registered with a central index make the VER market less transparent than its CDM counterpart. This poses two fundamental risks:



- **Certificate Quality:** As VERs are generated according to various more or less effective standards, it is difficult to determine their quality regarding the baseline or additionality of projects.
- **Delivery Quality:** Because there is no central registration, there is a high risk of double counting. It is not possible for a buyer to determine whether the certificates bought have not been sold to somebody else before.

However, because transaction costs are lower, the voluntary market offers the possibility to implement projects which are too small to be economically feasible under the CDM. These projects tend to have the highest co-benefits concerning poverty reduction and development. As investors in the voluntary market act with a moral or marketing motivation, they may be especially interested in poverty reduction issues. This could be a particular chance for development efforts.

As it has fewer binding requirements, the voluntary market is more flexible in terms of the methods being used. This is a way of gaining experience with project types whose methodologies have not yet been approved by the CDM EB – avoided deforestation being the most prominent example. But it also enables the generation of certificates that are not based on a solid scientific methodology and thus may lead to a backlash against the idea of offsetting emissions, as already expressed by some scientists and NGOs.

The VER market might open up new opportunities for development work. However, further analysis is necessary to determine whether these benefits outweigh the risks.

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## Supraregional: Süd-Nord-Dialog – Gerechtigkeit im Treibhaus

**Partnerorganisation:** Wuppertal Institut für Klima, Umwelt, Energie; Energy & Development Research Centre at the University of Cape Town (EDRC)

**Projektzeitraum:** Juni 2003 - April 2004

**Finanzierungsbeitrag:** € 185.000

### Kurzbeschreibung des Vorhabens

Das Inkrafttreten des Kyoto Protokolls wird ein wichtiger Schritt auf dem Weg zu effektivem globalen Klimaschutz sein. Doch steht die internationale Klimapolitik in Zukunft vor noch größeren Herausforderungen. Aus der Notwendigkeit vermehrter Emissionseinsparungen auf globaler Ebene, den zukünftig erforderlich werdenden Anpassungsmaßnahmen an den Klimawandel sowie den Entwicklungsbedürfnissen in großen Teilen der Erde erwächst nicht nur für Industriestaaten sondern auch für Entwicklungsländer eine Schlüsselrolle bei zukünftigen Verhandlungen.

Wie der Stillstand der Verhandlungen auf CoP 8 in Neu Delhi einmal mehr aufzeigte, besteht die dringende Notwendigkeit, zukünftige Verhandlungen unter Beteiligung aller relevanten Parteien mit Bedacht vorzubereiten. Aus diesem Grunde unterstützt die GTZ das Projekt "Süd-Nord Dialog – Gerechtigkeit im Treibhaus".

Der Dialog führt Wissenschaftler aus 14 Industrie- und Entwicklungsländern zusammen, um wichtige Eckpfeiler eines zukünftigen internationalen Klimaregimes zu diskutieren. Neben vermehrten Klimaschutzbemühungen werden auch Anpassungsmaßnahmen an den Klimawandel diskutiert. Zielsetzung des "Süd-Nord-Dialogs" ist es, konkrete Empfehlungen für den politischen Prozess zu erarbeiten, die einerseits unmittelbar auf die anstehenden Verhandlungen zugeschnitten, gleichzeitig aber in eine langfristige Strategie ökologisch effektiver und gerechter Klimapolitik eingebettet sind.

Nach einem Auftaktworkshop am 8./9. Juni 2003 in Wuppertal folgte eine siebenmonatige, vorstrukturierte E-mail-Diskussion über die Eckpfeiler zukünftiger Klimapolitik, dessen Ergebnisse die Basis für einen zweiten Workshop in Südafrika (28.-30. Januar 2004) bildeten. Zwischenergebnisse wurden im Dezember 2003 auf dem Klimagipfel in Mailand (CoP 9) präsentiert. Der Abschlussbericht wurde schließlich im Juni 2004 bei dem 20. Treffen der Nebenorgane der Klimarahmenkonvention in Bonn (SB-20) vorgestellt.

In einer zweiten Projektphase soll der Dialog auf politische Entscheidungsträger ausgeweitet werden. Dazu werden regionale Workshops in Asien, Afrika und Lateinamerika stattfinden, um die Empfehlungen mit Mitgliedern der klimapolitischen Verhandlungsdelegationen aus den jeweiligen Regionen zu diskutieren. Die Workshops verfolgen darüber hinaus das Ziel, gegenseitiges Verständnis und Vertrauen unter den Verhandlern zu fördern, um auch auf diesem Wege zur Vorbereitung von Verhandlungen um eine Fortentwicklung des Klimaregimes beizutragen.

## **Supraregional: North South Dialogue on Technology Transfer and Sustainable Development for Implementation of Convention on Climate Change**

**Partner organisation:** Bangladesh Centre for Advance Studies (BCAS)

**Project Period:** July 1997 - December 1997

**Financial Contribution:** DM 100,000

### **Project Brief**

In the past, developing countries have made disappointing experiences with technology co-operation. Failures have been due to a lack of information and of investment; the non-existence of self-sustaining markets for demonstrated technologies and a lack of integration into conventional technology transfer programmes.



Therefore, the German sponsored project "North South Dialogue on Technology Transfer and Sustainable Development for Implementation of Convention on Climate Change" (supported also by other countries) has improved communication to support new initiatives between industrialised and developing countries. The forum brought together representatives of trade, industry, government and NGOs of North and South to promote new forms of partnerships and technology co-operation.

In the first stage in 1997, three regional workshops in Africa, Latin America and Asia on technology innovation and technology co-operation were organised. The exchange between the different participants led to the following conclusion: Improved access to information on cleaner technologies, expanded networking capabilities and incentives to promote new partnerships are important to reduce the increasing rate of GHG emissions in developing countries and to stimulate the use of climate-friendly technologies. Although the climate change related issues are not a central issue in developing countries, 'win-win' options or 'no regrets' policies foster national economic development while at the same time reducing net GHG emissions.

The final report of these workshops was presented at the Conference of the Parties (COP 3) of the UN Framework Convention on Climate Change in December 1997 in Kyoto.

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In many developing countries, policies, programmes and projects aimed at reducing GHG emissions or slowing down future rates of increase are currently being implemented. However, these measures are not being taken to reduce possible impacts on the climate, but to promote national development.

In this context, many developing countries are now increasingly seeking opportunities for technology cooperation, especially in areas involving environment-friendly technologies. Unfortunately, past efforts in the fields of technology transfer and technology cooperation have not always been successful. Due to this disappointing experience with past technology transfer programmes, the governments of some developing countries are reluctant to seize the new opportunities for cooperation in the field of climate-friendly technologies. Furthermore, some developing countries are finding it difficult to use technologies introduced through international programmes. This is partly due to a lack of information and partly the result of an inadequate commitment to the development and preparation of new markets for advanced technologies.

Therefore, the German sponsored project intend to address the following project purpose:

- Representatives of trade and, in particular, of industry of developing and industrialized countries are aware of new opportunities for north-south cooperation in technology transfer

The project is targetting at representatives of private-sector enterprises in developing countries and their counterparts in industrialized countries. In addition, the project will be aimed at the representatives of non-governmental organizations (NGOs) in developing countries and also at the representatives of the governments of the most important developing countries.

The delegates to and observers of both the UN FCCC negotiations and the Third Conference of the Parties to the UN FCCC will be regarded as mediators of the results of the proposed project.

A number of projects promoting the north-south dialogue have been discussed in the course of the implementation of the Framework Convention on Climate Change. The measure here being described will back up and support the efforts of Working Group 7 (information, technology and networking) of the Climate Technology Initiative (CTI). As part of the activities to be undertaken within the scope of the present measure, representatives of the above group will present instruments facilitating the introduction of climate-friendly technologies.

The project will be implemented in a number of stages. The first stage will consist of identifying a group of international experts from three regions, namely from Asia, Africa and Latin America, who will organize workshops and intensify the dialogue process in cooperation with selected experts from industrialized countries. The second stage will consist of selecting regional NGOs to host and organize the regional workshops. Each host NGO will in turn identify and invite workshop participants, commission three case studies and prepare a paper giving a regional overview to be presented at the respective workshop.

On the basis of the three regional workshops, the core team consisting of representatives of the project executing agency and of the Pacific Institute will then prepare a paper giving a global overview and organize a seminar at which the results of the process will be presented to the participants of the Third Conference of the Parties to the FCCC.

The case studies to be prepared for the workshops will serve as examples of the scope and variety of measures promoting the national development process whilst at the same time

mitigating GHG emissions or slowing down their rate of increase. In addition, the case studies will help to gauge the existing potential for activities promoting both technological innovation and technology transfer. The case studies will therefore also provide a means of identifying further measures if the programmes for implementation of the framework convention on climate change are continued beyond the present phase.

In continuation of the present measure, it is planned to publish the findings in a book and to prepare a programme enabling the dialogue to be continued at regional level.

The North-South-Dialog is sponsored besides contributions by the Federal Republic of Germany from the Netherlands government, the Canadian government, EU commission, and in the planning phase from the US government.