



Focus on Clean Development Mechanism (CDM)

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Dear readers,

This edition is dedicated to projects for the Clean Development Mechanism (CDM) of the Kyoto Protocol. Although the first projects under this flexible instrument for reducing global greenhouse gas emissions and supporting sustainable development were registered in 2005, the scope has been (and is still) limited by uncertainty about the future of the Kyoto Protocol after 2012, as well as about what activities do and do not qualify for the CDM. However, the 2007 UN Climate Change Conference in Bali did add momentum to the CDM process. The operationalization of programmatic CDM projects was finished in 2007 and at Bali, the costs for projects registered by least developed countries was lowered and non-renewable biomass programs were approved (which makes projects promoting efficient cooking stoves possible). The GTZ is currently working on these new CDM areas, which can be particularly appropriate to expand the use of the CDM in Sub-Saharan Africa. Some examples mentioned in this edition are support for a biogas project in Kenya and work on identifying potential clean cooking projects for the CDM in Africa.

We hope you this edition inspires you to learn more about the CDM's possibilities!

The Editorial Team

01 | CIM experts support CDM activities in China

The expansion of the Clean Development Mechanism (CDM) in China is receiving a good deal of attention these days due to renewed international interest in addressing climate change—and naturally, the German Development Cooperation is involved. More than 15 German experts from the Centre of International Migration and Development (CIM) are now working on climate protection in China. Besides issues of know-how transfer, one of their main tasks is to increase networking between German companies and Chinese partners. CDM projects offer a good opportunity to introduce clean technologies and help put the burgeoning energy economy in China on a more sustainable path. Project proposals are springing up like mushrooms. 'Approximately 108 CDM projects are being implemented and more than 700 are approved by Chinese authorities', reports Martin Dilger, one of the four CIM experts dealing exclusively with the CDM. Dilger supports the 'Hongyuan Energy and Environmental Protection Cooperation', an umbrella organisation for the national network on eco- and energy efficiency companies, and works on the assessment and further definition of project approaches. 'The search for good projects is getting more difficult. Very good technical expertise as well as quick decision-making are needed,' explains Dilger who is cooperating, among others, with the private project developer Müncher Ingenieurgesellschaft UPM GmbH. This public-private cooperation pays off twofold: first the common project development lowers costs and second, UPM GmbH pays half the cost for the employment of the CIM expert. As a result of the successful cooperation CDM projects in the area of marsh- and landfill gas, biogas and energy efficiency will be implemented soon and other projects for the energy-intensive production of bricks, coke und cement are being planned. More information about CIM can be found [here](#).

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02 | GTZ IS India starts with Carbon Procurement Unit (CPU)

Since the end of 2007, the "GTZ International Services (IS) Carbon Procurement Unit (CPU)" has been helping German companies buy emission credits from CDM projects in India. The CPU just opened its own office in the capital and the first customer is RWE Power AG of Essen, which will buy about 10 million tonnes of CO₂ emission credits from India by 2012. Within the CPU, the GTZ IS supports buyers and project developers through the entire CDM cycle from identifying promising projects and advising the project owners to analysing the economic and technical value and emission reductions from the project. The CPU is already supporting around 100 projects of various sizes, including the world's largest project to generate electricity from biogas and biomass, which spans eight Indian states, and will ultimately generate more than 700 megawatts. The scope of project types is quite large—from projects on increasing the use of highly efficient gas-fired power plants and renewable energy to a project involving the exchange of old light bulbs with modern energy-saving ones. Internal and external controls will ensure that buyers are offered emission credits only from projects with real and significant emission reductions and which contribute to sustainable development. With the market growing rapidly in India, the CPU is starting at the right time. Although still trailing China, India has the second largest market for CDM credits around the world, with 302 of 803 CDM projects registered in India in early 2008. More information about GTZ IS CPU is available [here](#).

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03 | German Development Cooperation supports solar thermal CDM project in Tunisia

Tunisia will have a combined capacity for solar water heating of more than 1.5 million m² by the year 2010 and 2.5 million m² in 2020. Yet, solar water heating is currently not cost competitive with LPG, natural gas or even electric water heating in Tunisia, so strong policy measures will be necessary to develop the market for solar water heaters. In response to this problem, the Tunisian government, the United Nations Environmental Program (UNEP) and the Mediterranean Renewable Energy Partnership (MEDRP) initiated a solar water heating program called PROSOL as part of a larger sustainable development program that aims to install about 300,000 m² of solar water heater capacity by 2009. PROSOL is also complemented by a CDM Project called "Large-scale solar water heater market in Tunisia", executed by the National Agency for Rational Use of Energy. The CDM project will enable the government to install an additional 55,000 m²/year of solar water heaters, which will bring the grand total to 500,000 m² of installed capacity by 2011. This represents 670,000 tonnes of avoided CO₂ emissions from 2009 to 2018. Revenues from selling emission credits from the CDM project will go to an energy efficiency fund that will support more solar water heating capacity and certify solar heating products. The CDM project was drawn up within the framework of a GTZ project supporting the UNFCCC and was contracted to "EcoSecurities" and a national consulting firm, ALCOR. More about PROSOL is available through [MEDREC](#) and [UNEP](#).

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04 | CDM enables installation of 400 million energy efficient light bulbs in India

India may be on the verge of a lighting breakthrough. The Indo-German Energy Programme carried out by the GTZ and the Indian Bureau of Energy Efficiency (BEE) and funded by the German Federal Ministry for Economic Cooperation and Development (BMZ), is disseminating up to 400 million energy-efficient light bulbs to private households all over the country over five years. This should reduce the electricity demand by a total of about 10,000 MW. However, modern compact fluorescent lamp (CFL) bulbs are ten times more expensive than conventional bulbs. To make energy-efficient CFLs affordable for all Indian households, the GTZ is assisting the BEE in registering the project under the CDM. By applying to a special CDM category – a “Programme of Activities” (PoA) – emissions can be bundled from about 100 small-scale CFL projects under one organizational umbrella. The PoA can be particularly relevant for development projects because it allows this bundling of reductions from many small actions. The BEE and GTZ hope to realize a potential CO₂ reduction equivalent of 10 million tons annually, which will generate 10 million certified emissions reductions (CER). Revenues from the CERs will help cover the investment costs of €1.4 million per million CFL bulbs. The GTZ is drafting the PoA and designing a rigorous monitoring plan for this complex CDM project.

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05 | New opportunities for developing countries through CDM for clean cooking

Two new CDM methodologies available in 2008 promise to become major boosters for clean cooking programmes. After long debate, the parties to the UNFCCC agreed in Bali to enable a new category of CDM projects which will encompass reductions from the use of efficient cook stoves and appliances powered by renewable biomass. While the voluntary carbon market has provided some assistance for household energy in the past years, the recognition of these projects under the CDM raises the prospects of much more significant financial support for these efforts. Experts had discussed the difficult issue of quantifying CO₂ emission savings from non-renewable biomass projects for two years. “This opens new possibilities for improved stoves and creates a potential win-win-situation both for climate protection and development goals”, says Marlis Kees, programme coordinator of the Household Energy for Sustainable Development (HERA) initiative of the GTZ. However, difficult hurdles still need to be overcome. First, CDM project must result in at least 10,000 tonnes CO₂ reductions per year to cover transactions costs. Further, investors need to be found to finance the projects up-front. The GTZ, on behalf of the BMZ, will promote clean cooking programmes under the CDM by identifying and supporting model projects in Africa.

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06 | ‘Programme of Activities’ (PoA) working to build 2000 biogas digesters in Kenya

A project to implement 2000 biogas digesters in Kenya using the CDM ‘Programme of Activities’ (PoA) framework is posed to achieve important development goals such as increasing the access to clean cooking energy, improving health conditions and reducing the use of non-renewable biomass. On behalf of the BMZ, the GTZ is conducting a feasibility study for this project, which will focus on biogas technology for small farmers who have 5 to 10 cattle that are kept in stalls. Conditions in diverse regions of Kenya are suitable for biogas utilisation, according to the study authors, and even households with just two or more cattle could benefit from a biogas digester. The main barrier to biogas is the high up-front investment, so to make 2000 biogas digesters possible, local technicians have to be trained, support networks and institution need to be built up, and favorable business conditions need to be established before farmers can afford the investment for a biogas digester. There is an urgent need to develop alternative sources of energy in Kenya and other countries in the region because the uncontrolled harvest of fuelwood is contributing to deforestation and also results in an unhealthy dependence on a dwindling energy source. Cookfires are also associated with health problems and gender discrimination due to the high labor costs of fuelwood gathering. The GTZ will support national institutions in particular in fostering a favourable business environment for the digesters to make the PoA CDM project viable. Read more about GTZ in Kenya [here](#).

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07 | Sustainable Urban Transport Project announces release of new CDM module

Although the transport sector is a major contributor to global greenhouse gases, very little investment has been realized in transport sector projects under the CDM so far. The problem has been the rather restrictive methodological requirements that project developers have to meet for CDM transport projects. However, the first transport CDM project has now been approved—the TransMilenio, which is a Bus Rapid Transit (BRT) project in Bogota/Colombia. Similar CDM projects could be implemented in cities around the world, if the methodology can be replicated. Dr. Jürg M. Grütter, a transport expert and methodology reviewer for the UNFCCC, has prepared a module for the GTZ's Sustainable Urban Transport Project ([SUTP](#)) that presents the Transmilenio BRT and summarises the core issues of CDM transport projects. SUTP is a partnership between the GTZ, the Bangkok Metropolitan Administration, CITYNET and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). The module 5e, "The CDM in the Transport Sector" is available for download [here](#).

[>| CONTENT](#)**08 | Here comes the sun – options for using solar cookers in developing countries**

The GTZ's household energy programme, HERA, has released a new publication analysing the successes and constraints in the dissemination of solar cookers. In many cases where the solar cookers dissemination has failed, the projects neglected to analyse their usefulness in light of local cooking traditions. Other reasons for a low adoption rate have often been high costs and a lack of maintenance services. Nonetheless, in regions where few alternative fuels are available and where the solar cookers are suited to local cooking methods, solar cooking has taken hold. Based on experiences and observations made all over the world the authors conclude that ten basic rules have to be considered for a successful dissemination and use of solar cookers. For example, it has to be possible to prepare local foods with the solar cooker and local supply and maintenance of the cookers should be available. Another alternative and very useful technology for solving fuel wood shortages, as the publication discusses, can be fuel efficient stoves that can often be adapted to local cooking needs. The publication is available for download [here](#).

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