



(Credit: Innosanto Nagara, Design Action)

# Rip-Offsets:

## THE FAILURE OF THE KYOTO PROTOCOL'S CLEAN DEVELOPMENT MECHANISM

The Clean Development Mechanism (CDM) is supposed to catalyze climate-friendly projects in low-income countries by allowing developers to generate revenue by selling “carbon credits” or “offsets.” The offset buyers – industrialized country companies and governments – use the credits to show compliance with Kyoto Protocol-mandated emissions reductions. Because of the CDM’s structural flaws and cheating by project developers, billions of dollars worth of credits are being sold by projects that never needed assistance from the CDM to be built. In the short-term the CDM must be radically improved; beyond 2012 its goal of providing finance for clean development in developing countries should be met through fund-based rather than offsets-based approaches.

The CDM was established under the Kyoto Protocol with the stated aims of reducing the costs of cutting greenhouse gas emissions in industrialized countries, and promoting sustainable development in developing countries. Unfortunately the mechanism has failed to meet either of its goals and is undermining the effectiveness of the Kyoto Protocol.

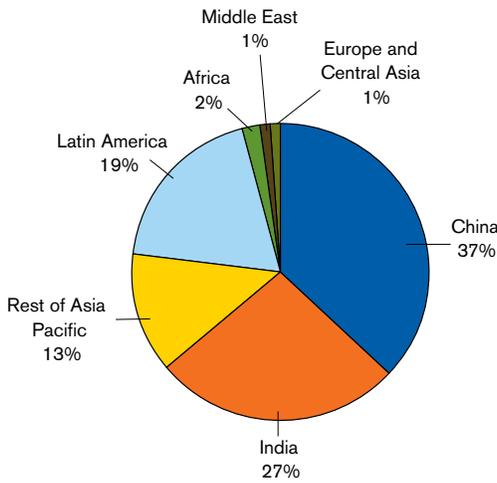
A significant proportion, perhaps the majority, of CDM credits is from projects that do not actually reduce emissions. When the CDM has lowered emissions in developing countries, it has often been a stunningly expensive process. Developers and regulators have rarely made any effort to ensure that CDM projects

provide any non-climate benefits. Some projects applying for the CDM are causing serious social and environmental harm.

When the CDM does cause a project to be implemented that lowers emissions locally, there is no global climate benefit because the CDM is at best a zero-sum game. Each so-called “emission reduction” generates an offset that allows an industrialized country to keep on polluting, discourages it from investing in innovation and deployment of low-carbon technologies, and slows down the needed rapid transition to an economy compatible with a stable climate.

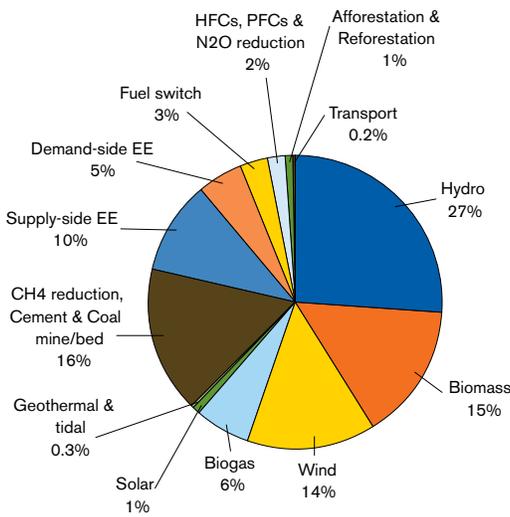


**FIGURE 1: PROJECTS IN THE CDM PIPELINE BY REGION**



Source: UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 October, 2008.

**FIGURE 2: PROJECTS IN THE CDM PIPELINE BY TYPE**

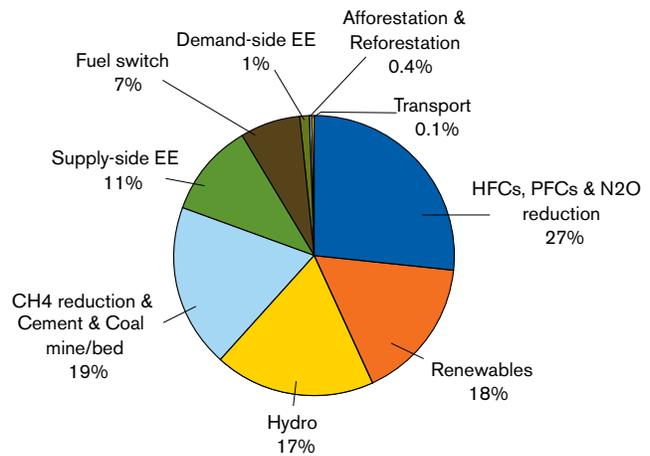


Note: EE = energy efficiency

As of November 1, 2008, the CDM's UN-appointed Executive Board had approved (or "registered" in CDM jargon) 1990 projects in developing countries. A further 2684 projects were in the process of applying for registration.

Once a project is registered, its owners can periodically apply for credits — known as Certified Emission Reductions (CERs) — to sell to industrialized country buyers. A CER is supposed to represent the equivalent of one tonne (metric ton) of carbon dioxide not emitted to the atmosphere.

**FIGURE 3: PERCENTAGE OF CDM CREDITS GENERATED BY PROJECT TYPE BY 2012**



The most common project type is hydropower dams. Other projects include destroying waste gases from chemical factories, wind farms, biomass power plants, efficiency improvements in industrial processes, and capturing methane from coal mines and landfills. The CDM is currently expected to produce around 1.5 billion CERs by 2012, worth around \$30 billion at current prices.

### FUDGES, FRAUD AND STORYTELLING

The fundamental flaw with the CDM is the need to prove the "additionality" of each project. A project is additional if it was implemented only because of the extra income from selling CERs. If a project would happen anyway, regardless of CDM benefits, then its offsets do not represent any reduction in emissions. These "rip-offsets," as they have been termed by Joseph Romm of the blog Climate Progress, allow industrialized countries to emit more than their Kyoto targets, without reducing pollution elsewhere.

Experience has shown that it is extremely difficult for regulators and other analysts to assess developers' claims of additionality. But there is ample evidence to suggest that a significant proportion, perhaps the majority, of CERs is from non-additional projects. Lambert Schneider of Germany's Institute for Applied Ecology estimates that about a fifth of the credits from all projects registered by the CDM by mid-2007 were of "unlikely or at least questionable" additionality. For methodological reasons, Schneider's estimate is likely to underestimate the scale of the non-additionality problem.<sup>1</sup> David Victor, head of Stanford's Energy and Sustainable Development Program, believes that "between a third and two thirds" of CDM offsets do not represent actual emission cuts.<sup>2</sup>

**One glaring indication that most projects are not additional is that three-quarters of projects were already up and running at the time they were approved by the CDM.** If carbon credit income were really essential for a project to go forward, then most developers would need to make sure that their project had been

## Dirty CDM Hydros

Two particularly destructive large hydro projects have applied for CDM approval in recent months. Neither project can convincingly be described as additional. If they are stopped it will be because of community opposition and legal challenges, not a lack of CDM income.

### BABA DAM, ECUADOR

Opponents of this project have been met with intimidation, harassment and violence. Many have received anonymous phone calls threatening their lives. One local community leader, Andrés Arroyo Seguro, was murdered on June 20, 2005. His badly beaten body was dumped in the Baba River at the site where the dam is planned. In 2008, several community leaders have been charged with spurious criminal charges. The environmental impact assessment was inadequate, failing to address many of the anticipated impacts of the project.



Construction and roadwork in preparation for Changuinola I in 2005  
(Photo: Florencio Quintero)

### CHANGUINOLA I, PANAMA

This 222 MW dam, located in the buffer zone to La Amistad UNESCO Biosphere Reserve, has been criticised by the UN Special Rapporteur on human rights and indigenous people for the treatment of the 1,000 Ngobe people being forced to leave their homes. Security guards

hired by project developer, AES, and the police have been responsible for beatings, arbitrary detention, public humiliation, threats and illegal destruction of crops and homes. The project would destroy riverine and forest ecosystems in one of the world's biodiversity hotspots.

successfully approved by the CDM Board before beginning construction. However, as of October 1, 2008, 76% of all registered projects had not only started construction, but were already completed by the time they were approved as eligible to sell credits.

CDM proponents assert that projects which were completed before receiving CDM approval are additional on the grounds that their developer went ahead with the project on the belief that it would one day be eligible to receive credit income. However, projects face high risks of non-registration — so far almost a fifth of projects have been rejected by either the CDM Executive Board or the private sector auditors known as “validators.”<sup>3</sup> It is difficult to believe that thousands of project developers and investors would risk tens, even hundreds, of millions of dollars in projects that would lose money if they were not registered. Developers also face a large risk that the CDM will issue them with many less credits than they have applied for. Geothermal and landfill gas projects, for example, have been issued with only around a third of the credits they have requested.

Interviews with bank employees in India reveal that they do not take CDM credits into account when evaluating projects for loans because of the uncertainties associated with credit generation.<sup>4</sup> It is surprisingly easy to find CDM project developers who openly admit that they would have built their projects anyway, regardless of CDM subsidies. Many people involved in the CDM process will admit that numerous CDM projects are non-additional and that the CDM is doing little to support real emissions reductions.<sup>5</sup> Forgery and fraud in project applications are common themes discussed in carbon trading conferences and workshops.

### TINKERING WITH THE RULES CAN'T FIX THE PROBLEM

The CDM has recently responded to outside criticisms by tightening its processes and hiking its rejection rate, and the private sector project validators also appear to finally be taking a tougher line. While these efforts are to be welcomed, the subjectivity involved in project development, investment and lending decisions makes an accurate test for project additionality impossible. Each proposed CDM project is audited by a validator, who, among other criteria, is asked to assess

the additionality of the project. Auditors are accustomed to working with largely objective criteria, but there are no accurate objective measures of the intentions of developers, investors and lenders. Industry representatives have complained that “good story-tellers” can get a project approved, “while bad story-tellers may fail even if the project is really additional.”<sup>6</sup>

Further improving additionality testing is essential to stemming the widespread gaming of the CDM, but doing so would increase the cost and length of the CDM approval process (already considered far too cumbersome and time-consuming by project developers) without resulting in sufficiently accurate additionality testing. The time, cost and uncertainty of the CDM approval process, which are inherent to the need to prove additionality, make the CDM unattractive to the smaller scale and cutting edge projects that are most in need and deserving of support. Solar power, for example, has so far received not a single CDM credit.

#### OTHER UNDERLYING PROBLEMS WITH OFFSETTING AND THE CDM

- **Perverse incentives.** Offsetting mechanisms are measured against a “business-as-usual” baseline (what would have happened without CDM credits). They therefore risk creating perverse incentives for governments and individual facilities to maintain high baselines. For example, a relatively efficient company will be credited with fewer credits for implementing additional efficiency measures than an inefficient company which implements the same measures. The CDM could substantially increase emissions through these perverse incentives, especially by disincentivizing climate-friendly legislation by governments. Why would a government enact legislation forcing chemical companies to stop venting heat-trapping waste gases if in doing so it makes these activities “business-as-usual” and so not eligible for CDM income?
- **Conflicts of interest.** Validators have a vested interest in approving CDM projects, since they are hired by the developers and wish to be hired again. The subjectivity involved in additionality testing makes it easy to justify positive validations.

- **Sustainable development?** Projects that both reduce emissions and have high poverty alleviation benefits, such as biogas digesters and village electrification from renewable technologies, need relatively high CER prices and low transaction costs to be viable. They are therefore a tiny part of the CDM pipeline. The journal *Climatic Change* in 2007 investigated whether the CDM was delivering on its sustainable development mandate. The conclusion was a resounding no.<sup>7</sup> Even worse, many projects in the CDM pipeline have severe negative social and environmental impacts.

#### LOOKING FORWARD

Deep emissions cuts by industrialized countries will be necessary in the years after the first phase of Kyoto expires in 2012, as will much larger financial flows to support shifts towards low-carbon development paths in developing countries (and for helping these countries lessen the impacts of climate chaos). For all the reasons described above, it is clear that the CDM will undermine these goals if it continues as an offsetting mechanism beyond 2012.

Industrialized countries will need to meet their obligations for financial transfers in a way that is independent from and additional to their emission reduction obligations. Several non-offsetting funding mechanisms to help developing countries reduce emissions and adapt to climate change have recently been proposed for the post-2012 regime, including by the G-77, Norway, and Switzerland. Carefully constructed fund-based approaches must replace offsetting in any post-2012 international agreement that stands a chance of pulling the planet back from climate disaster.

#### ENDNOTES

1. See McCully, P. (2008) “The Great Carbon Offset Swindle,” in Pottinger, L. (ed.) *Bad Deal for the Planet*, International Rivers, Berkeley, p.7.
2. “Stanford Study May Stir Debate On Limiting Costs In Climate Bills,” *Carbon Control News* ([carboncontrolnews.com](http://carboncontrolnews.com)). Posted 7 March, 2008.
3. UNEP Risoe CDM/JI Pipeline Analysis and Database, 1 October, 2008.
4. From interviews conducted by Barbara Haya during 2006–8 for a PhD dissertation at the University of California, Berkeley.
5. Ibid.
6. Schneider, L. (2007) “Is the CDM Fulfilling its Environmental and Sustainable Development Objectives? An Evaluation of the CDM and Options for Improvement.” Report prepared for WWF by Öko-Institut, 5 November.
7. Michaelowa, A. and K. Michaelowa (2007) “Does climate policy promote development?” *Climatic Change*, p.84.

#### FOR MORE INFORMATION:

Comments submitted to the CDM on specific hydro projects: [internationalrivers.org/cdm\\_comments/date](http://internationalrivers.org/cdm_comments/date)

Patrick McCully (2008) “The Great Carbon Offset Swindle,” in *Bad Deal for the Planet*, International Rivers, Berkeley: [internationalrivers.org/en/node/2826](http://internationalrivers.org/en/node/2826).

## JOIN US!

Join International Rivers today and become part of the global movement to protect rivers and rights. Sign up at [internationalrivers.org/support](http://internationalrivers.org/support)