What is Clean Development Mechanism?

**Background**

The Clean Development Mechanism is one of the key components of the Kyoto Protocol.

An offshoot of the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol is a legally binding global agreement to combat climate change through a reduction of greenhouse gas (GHG) emissions.

The Kyoto Protocol follows the fundamental UNFCCC principle of "common but differentiated responsibility" which recognizes that the burden of responsibility should fall heaviest on the countries which have historically emitted the greatest quantity of GHGs. So the Protocol legally requires the highly industrialized and developed countries (known as Annex 1 Parties) to achieve quantified reductions in man-made GHG emissions. The less developed countries (non-Annex 1 Parties) - the smallest emitters, yet the most vulnerable to climate risks - have no binding reduction targets.

**The Promise**

The stated purpose of the Clean Development Mechanism is to help developing (non-Annex 1) countries achieve sustainable development, and assist industrialized (Annex I) countries in complying with their emission reduction commitments.

The scheme appears simple: private companies fund projects in developing countries that reduce greenhouse gas emissions. They must also meet sustainable development criteria and the “additionality” requirement, which means the emission reductions made must be “additional” to what would have been possible without CDM funding. Upon verification, the CDM awards these projects certified emission reductions (CERs), each equivalent to one ton of carbon dioxide. CERs are then sold to developed countries, which use them to meet a part of their reduction commitments under the Kyoto Protocol. CERs are also called “offset credits” because they “offset” the developed countries’ emissions with reductions in developing countries.

**The Premise**

In effect, the CDM allows countries to continue emitting greenhouse gases, so long as they pay for reductions made elsewhere. The justification for this is based on the premise that it would be far more expensive to implement emission reductions in industrialized countries than in developing countries; and, in addition, the developing countries would gain sustainable development benefits from the entry of “clean” and more energy-efficient technologies.
The Practice

More than 1,000 CDM projects have qualified for carbon credits. Most of these are large-scale activities in the energy sector; in the waste sector, subsidized technologies include landfill gas, incineration, and cement kilns. India and China are the biggest takers with a combined share of more than 50% of the projects. With some 3,000 more projects awaiting registration, the CDM expects to generate nearly 3 billion CERs by 2012, when the first Kyoto commitment period ends.

Trade in CERs currently runs to an estimated $10bn a year. This has fueled a gigantic, global carbon trading market that is raking in huge profits for financing companies, consulting firms, brokers, and other market players. Project developers and industrialists are also pocketing windfall profits from their CDM projects, giving rise to observations that big business has taken over the CDM and is siphoning off funds that are intended for genuinely beneficial projects.

While the rich countries are buying up carbon credits and enjoying vicarious emission reductions as a way to meet their Kyoto obligations, it has yet to be shown that the CDM is indeed helping poorer countries move forward to a more sustainable future.

The Problems

In the course of CDM implementation, numerous complaints have been aired over such things as uneven distribution of benefits, difficult and lengthy registration process, high transaction costs, and inaccessibility to certain sectors.

The more serious problems, however, are persistent issues that strike at the heart of the CDM and question its effectiveness as an instrument for climate justice and equity. Among these issues are:

- Trading in greenhouse gases turns them into a commodity, giving “owners” undue rights to pollute.
- Carbon trading allows companies and countries to claim to be reducing emissions, even as they continue to burn fossil fuels, destroy forests and pollute communities.
- Many companies are getting millions of dollars in CERs for projects they would have done anyway without the CDM incentive. This violates the "additionality" rule and means that these projects, rather than reducing overall emissions, are actually increasing them.
- CERs are awarded for reductions against a hypothetical baseline derived from future emission projections. This is extremely vulnerable to manipulation, so projects can get CERs even as they increase actual emissions.
- The system rewards many projects for merely avoiding a part of the emissions that would have occurred under a business-as-usual scenario, but offers no incentive for choosing the best policy option. Thus incinerators and landfill gas systems obtain credits, even though they are clearly inferior to recycling and composting systems.

Zero Waste for Zero Warming

Unfortunately, the CDM has funded a big number of waste disposal projects, including incinerators and landfills.

Incinerators and landfills contribute significantly to climate change, not only by releasing GHG emissions themselves, but by wasting materials that can be reused, recycled and composted, thus requiring increased extraction of raw materials and the manufacture and transport of new products, all extremely energy-intensive processes.

The truly climate-friendly solution is Zero Waste, a policy that incorporates waste reduction, reuse, recycling and composting. For example, with a national Zero Waste program, the US could cut its emissions by an amount equivalent to closing 21% of its coal-fired power plants!

For more information:
- www.no-burn.org/cc
- www.stoptrashingtheclimate.org
- GAIA website, www.no-burn.org/climate

Written by Marie Marciano for GAIA
CDM and Waste Disposal

**Notes on the CDM**

*The Clean Development Mechanism is a key component of the Kyoto Protocol -- a legally binding global agreement by 192 countries to combat climate change through a reduction of greenhouse gas (GHG) emissions.*

The highly industrialized countries (known as Annex 1 Parties) have a legally-binding obligation under the Kyoto Protocol to achieve quantified reductions in their enormous GHG emissions. The less developed countries (non-Annex 1 Parties) are not required to reduce their comparatively small emissions.

The CDM is a market-based mechanism. It entices private companies to fund GHG-reducing projects in developing countries by awarding these projects certified emission reductions (CERs) - also called ”offset credits” - that bring in huge profits in the carbon trading market. Annex 1 countries buy these CERs to offset their own emissions with reductions made in non-Annex 1 countries, effectively allowing the industrialized countries to meet their Kyoto reduction commitments “by proxy.”

**Not clean, not climate-friendly**

The Clean Development Mechanism is supposed to stimulate sustainable development and emission reductions by facilitating the development of clean technologies to replace the dirty ones that have caused the climate crisis. In practice, however, the CDM often invests in dirty, discredited, and unsustainable technologies – some of which increase, rather than decrease, GHG emissions.

For example, as of May 2008, out of 90 projects funded by the CDM to improve municipal waste management, 83 were landfills with gas recovery, and another five included incinerators – the two worst waste management technologies. Only three projects included composting.

**Not solutions, but false remedies**

Incinerators emit huge amounts of carbon dioxide (CO₂) and landfills are a major source of methane, an even more potent GHG. But they cause far greater emissions by destroying usable materials (paper, metals, plastic, etc.) which instead should be recycled and reused. When industry is deprived of recycled materials, it increases the demand for virgin materials, which are far more energy-intensive and polluting to produce.

The waste disposal industry attempts to “neutralize” its GHG emissions by generating energy from waste through incineration and landfill gas capture. However, landfill gas systems may capture as little as 20% of a landfill’s total emissions. Similarly, when all factors are considered, incinerators emit significantly more greenhouse gases than coal-powered plants for every kilowatt of electricity generated.

Waste disposal systems are one example of CDM-funded back-end strategies that do not address the root causes of the problem and therefore do not offer real solutions. If the Clean Development Mechanism is to fulfill its mandate, it must cease wasting money on such projects and turn toward genuine solutions in all sectors.
THE REAL SOLUTION:  
Not disposal, but Zero Waste

In the waste sector, a genuine and proven solution to the problem of GHG emissions is the Zero Waste approach, comprising waste avoidance, reuse, recycling and composting.

Zero Waste offers many distinct advantages over other waste management strategies, including:

- It radically reduces GHG emissions. In California, for example, a household that simply recycles all its readily-recyclable materials reduces emissions by the same amount as no longer driving their cars.

- For a given investment, Zero Waste results in greater emissions reductions than any other strategy. It is also inexpensive, so it will not require significant new funds.

- Zero Waste produces more green jobs and enterprises for less investment than any other waste management strategy.

- Zero Waste addresses the problems of waste without the toxic pollution caused by incineration and landfilling, which contaminates water and food sources and endangers human health.

- It conserves and recovers resources. In contrast, incinerators and landfills destroy resources, causing increased GHG emissions and many other environmental and human rights problems associated with forestry, mining, and oil drilling.

Zero Waste pilot communities in different parts of the globe are becoming self-reliant, learning responsible consumption, production and waste management, and advancing the cause of social justice. However, efforts at promoting Zero Waste are seriously undermined by the attractive funding given to waste disposal projects by the CDM. This must be stopped so that Zero Waste initiatives can prosper at full speed.

Zero Waste for Zero Warming

Achieving Zero Waste is a process that may take years. But a simple program consisting of its downstream components - source separation, reuse, recycling and composting – can be set up quickly and produce immediate benefits to the climate, the environment, and human health.

Zero Waste aims to close the loop on all material used in the economy. Under Zero Waste, each element of a source-separated waste stream is subjected to minimal treatment so that it can be reused. Clean, source-separated organics (including kitchen discards) are composted or subjected to anaerobic digestion; usable goods are repaired and re-used; other materials are recycled. The small percentage that cannot be usefully recycled or composted is addressed by going upstream, requiring the redesign of manufactured goods to eliminate this small residual.

A variety of policies, such as Extended Producer Responsibility, Clean Production, packaging taxes, and bans on specific materials (such as plastic bags, polystyrenes, PCBs, etc.) have proven effective at reducing problematic materials in different locales. As the residual portion shrinks, the system approaches its goal of zero waste. Zero waste means zero disposal and zero warming from waste.

Written by Marie Marciano for GAIA

For more information:
www.no-burn.org/cc
www.stoptrashingtheclimate.org

GAIA website:
www.no-burn.org/climate