

Climate Justice for a Changing Planet: Beyond Carbon Trading

by Oscar Reyes and Tamra Gilbertson
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â€œBillions wasted on UN climate programme.â€• â€œTruth about Kyoto: huge profits, little carbon saved.â€• â€œUN effort to cut emissions in turmoil.â€• The headlines attracted by the carbon trading mechanisms at the heart of the Kyoto Protocol, most notably the Clean Development Mechanism (CDM), tell a story of a scheme in trouble. But why has it caused such controversy?

Carbon trading is a complex system which sets itself a simple goal: to make it cheaper for companies and governments to meet emissions reduction targets. The Kyoto Protocol saw industrialised countries (described as â€œAnnex 1â€•) commit to cut greenhouse gas emissions by 2012 to a level 5.2 per cent lower than those of 1990. At the same time, a series of â€œflexible mechanismsâ€• were agreed which meant that these targets need not be met domestically.

The CDM is the largest such mechanism, with almost 1,800 registered projects as of September 2009 and over 2,600 further projects awaiting approval. Based on current prices, the credits produced by approved schemes could generate over \$55 billion by 2012. The CDM takes the form of carbon â€œoffsetting,â€• which allows companies, international financial institutions and governments to finance â€œemissions-saving projectsâ€• outside the Annex 1 countries.

Although offsets are often presented as emissions reductions, they do not actually reduce emissions. At best, they move reductions to where it is cheapest to make them, which normally means a shift from Northern to Southern countries. Greenhouse gas emissions continue to be made at one location on the assumption that an equivalent saving will happen elsewhere. The projects that count as â€œemissions savingsâ€• range from building hydro-electric dams to capturing methane from industrial livestock facilities.

These â€œsavingsâ€• are calculated according to how much less greenhouse gas is presumed to be entering the atmosphere than would have been the case in the absence of the project. But no ways exist to demonstrate that it is carbon finance that makes the project possible. Researcher Dan Welch sums up the difficulty: â€œOffsets are an imaginary commodity created by deducting what you hope happens from what you guess would have happened.â€• Estimates vary, but academic analysis of existing projects suggests that between one third and three-quarters of projects do not represent â€œemissions savingsâ€• by any reckoning. The companies behind such projects are paid to do what they would have done anyway, while the credits allowed companies in industrialised countries to exceed their emissions cap.

Easy pickings

Beyond this, one of the most frequent justifications put forward for carbon offsets is that they should ensure that the cheapest reductions are made first. What is cheapest in the short term is not the same as what is most environmentally effective or socially just, however. The cheapest abatements tend to be generated by loopholes and generous subsidies for the deployment of existing technologies, rather than stimulating shifts to more sustainable development paths.

As of September 2009, three-quarters of the offset credits issued were manufactured by large firms making minor technical adjustments at a few industrial installations to eliminate HFCs (refrigerant gases) and N₂O (a by-product of synthetic fibre production). This picture is unlikely to change dramatically by the time the Kyoto Protocolâ€™s first commitment period expires. By the end of 2012, HFC and N₂O credits are still expected to account for the largest share of the CDM (28.5 per cent and 14.4 per cent respectively), followed by hydro-electricity projects (10.8 per cent). By comparison, solar power is expected to account for just 0.03 per cent of CDM credits by 2012.

As Michael Wara of Stanford University puts it, â€œthe CDM market is not a subsidy implemented by means of a market mechanism by which CO₂ reductions that would have taken place in the developed world take place in the developing world. Rather, most CDM funds are paying for the substitution of CO₂ reductions in the developed world for emissions

reductions in the developing world of industrial gases and methane. In fact, many of these emissions do not even occur in the developed world where producing facilities have voluntarily adopted to destroy HFCs without the use of emissions trading. Wara estimates that a straightforward subsidy to regulate HFC-23 emissions would have cost less than \$100 million yet, by 2012, up to \$4.7 billion in carbon credits will have been generated by such projects.

A fossil fuel subsidy

Proponents of the CDM suggest that a new balance of future projects will gradually move closer to incentivising cleaner energy and more sustainable development. Yet the evidence does not support this conclusion. The most obvious cases here are the plethora of fossil fuel projects that are supported by the CDM. To apply for the scheme, a project simply needs to prove that it is cleaner than the norm for existing power production in the region or country where it is located. As new plants are generally more efficient than old, this is rarely a difficult task.

A recent study of new gas-fired power stations in China, for example, found that all twenty-four new Combined Cycle Gas Turbine plants under construction between 2005 and 2010 had applied for CDM subsidies. A second example involves new 'supercritical' coal-fired power plants, which have been eligible for CDM credits since autumn 2007 despite the fact that coal is amongst the most CO₂ intensive sources of power. Fifteen projects had sought validation under this methodology as of September 2009. This sets up a perversely circular structure where, instead of envisaging a rapid transition to clean energy, the CDM is subsidising the lock-in of fossil fuel dependence through providing incentives for new coal-fired power stations in the South, rather than renewable energy infrastructure based on local needs. With the credits that these new plants will generate, the CDM is at the same time encouraging a continued reliance on coal-fired power stations in the North as well.

A greener future?

The growth of CDM investment in fossil fuel power generation is not the whole story, however, as proponents of the scheme might still claim that it will expand investments in 'renewable' sources at a similar rate.

Typically, the calculations for hydroelectric projects imagine that they will replace energy that would otherwise have been sourced from fossil fuels. Yet most projects hydropower projects submitted for CDM validation are expected to start generating credits within 12 months of their validation. Since hydropower plants normally take several years to build, the likelihood is that most projects were under construction prior to their beginning the CDM validation process. The local environmental and social impacts of such projects are frequently severe. A similar assessment could be made of biomass power projects, which tend simply to count the methane (CH₄) emissions that are avoided because it is burned rather than allowed to biodegrade without considering the huge emissions caused by cutting down forests or draining carbon-rich peatlands to set up the plantations that provide the biomass feedstock.

The attempt by carbon offset promoters to distinguish between 'good' and 'bad' projects misses the point, since even most renewable projects are inserted within a system that generates credits to carry on polluting elsewhere. Such projects not only perpetuate the old problems of coal, oil and gas; they often promote local conflict as well. Not designed to deal with the real complexities and intricacies of communities and livelihoods, they require enormous quantities of land, water, machinery and are not set up to benefit the local communities or ecology. The resulting conflicts often come as a surprise to idealists convinced that carbon offset projects will bankroll community-friendly renewable energy - with administrative costs of \$100,000 and upwards, the CDM does not fund such initiatives.

Different paths

The failings of the CDM are not simply problems in how the rules are designed, or teething problems in its implementation, but are fundamental to the scheme itself. It was designed to look for the cheapest cuts and found that those involved cheap deployment of existing technologies by large-scale industry and power producers. The proposals on the table at Copenhagen to reform and expand the CDM do not address these fundamentals while new 'sectoral crediting' schemes (which change the nature of the Nationally Appropriate Mitigation Actions developing countries agreed to adopt as part of the 2007 Bali Road Map, which provides the framework for the Copenhagen negotiations) would

expand offsetting with even weaker checks and balances.

If a cleaner future is the goal, then the process should start elsewhere. Clean infrastructure investment tends to require upfront public funding – which should come largely from industrialised countries, since they predominantly caused the problem. Such funding is no guarantee of success, however, unless a decentralised governance structure is adopted which allows for meaningful citizens’ participation and sensitivity to local contexts – allowing for the adaptation and improvement of locally-adapted industrial and agricultural techniques, and engaging in a bottom-up assessment of real energy needs.

A further significant requirement is to break with the logic of offsetting itself, which asks developing countries to clean up their act so that companies in Annex 1 countries can carry on polluting as usual. Instead of stimulating new commodity markets, the targets and obligations placed on industrialised countries should be met domestically. A plethora of existing regulations, performance standards and incentives exist to help guide this path – ranging from –feed in tariffs– for renewables, to emissions output limits on power producers and heavy industry. With Annex 1 countries having done most to cause climate change, their rapid and binding adoption of more meaningful domestic action remains the fundamental stumbling block on the road to tackling climate change justly and effectively.

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Their latest publication, Carbon Trading - How it works and why it fails, can be accessed at <http://www.tni.org/carbon-trade-fails>. The book is published by the Dag Hammarskjöld Foundation (www.dhf.uu.se) as part of its Critical Currents series.

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