The CDM in Africa Can't Deliver the Money

Report to the United Nations CDM Executive Board "Call for Inputs on the Policy Dialogue" about CDM flaws in South Africa and Nigeria

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Executive Summary

This report provides documentation in three areas – the context of the Clean Development Mechanism (CDM) in Chapter One, South Africa's pilot CDM fraud and environmental racism in Chapter Two, and Nigerian CDM corruption of local governance in Chapter Three – that suggest the need for an urgent policy review of the entire mechanism's operation, with the logical conclusion that the system should be decommissioned and at minimum, a moratorium be placed on further crediting until the profound structural and implementation flaws are confronted.

Chapter 1: The contextual crisis of CDM financing

By Patrick Bond and Khadija Sharife

Introduction

Is Africa being drawn into a climate policy framework and project funding based on financial markets that mainly enrich speculators and impoverish the continent's poor people? In the wake of South Africa's unsuccessful hosting of the world climate summit, the newest signals from the United Nations, World Bank and European Union suggest that rising fears of – and resistances to – carbon markets in Africa are well grounded.

The context is crucial, prior to any investigation of the mechanics of carbon markets. Africa will be 'cooked', as Nnimmo Bassey of the Niger Delta NGO Environmental Rights Action, puts it in a new book.[1] According to UN Intergovernmental Panel on Climate Change director R.K. Pachauri, "crop net revenues could fall by as much as 90 percent by 2100."[2] Climate damage to Africa will include much more rapid desertification, more floods and droughts, worse water shortages, increased starvation, floods of climate refugees jamming shanty-packed megalopolises, and the spread of malarial and other diseases. The danger is imminent, for eight of the twenty countries which the Center for Global Development's David Wheeler expects to be most adversely affected by extreme weather events by 2015 are African: Djibouti, Kenya, Somalia, Mozambique, Ethiopia, Madagascar, Zambia and Zimbabwe. In the Horn of Africa, those affected are anticipated to include 14 percent of Djiboutis, 8 percent of Kenyans, 5 percent of Ethiopians, and 4 percent of Somalis.[3]

In 2009, former UN secretary general Kofi Annan's Global Humanitarian Forum issued a report worth citing at length, as it reflects at least a degree of elite awareness of the extent of the challenge. "The Anatomy of a Silent Crisis" provided startling estimates of damages already being experienced:

> An estimated 325 million people are seriously affected by climate change every year. This estimate is derived by attributing a 40 percent proportion of the increase in the number of weather-related disasters from 1980 to current to climate change and a 4 percent proportion of the total seriously affected by environmental degradation based on negative health outcomes… Application of this proportion projects that more than 300,000 die due to climate change every year – roughly equivalent to having an Indian Ocean tsunami annually. The number of deaths from weather-related disasters and gradual environmental degradation due to climate change – about 315,000 deaths per year – is based on a similar calculation... Over 90 percent of the death toll relates to gradual onset of climate change which means deterioration in environmental quality,

1. Nnimmo Bassey, *To Cook a Continent,* Oxford, Pambazuka Books, 2011.
2. R.K. Pachauri, "Summary of testimony provided to the House Select Committee on Energy Independence and Global Warming," US Congress, Washington DC, 2008, globalwarming.house.gov/tools/assets/files/0342.pdf.
3. David Wheeler, "Quantifying vulnerability to climate change," Center for Global Development Working Paper 240, Washington, DC, http://www.cgdev.org/content/publications/detail/1424759, p.15.

> such as reduction in arable land, desertification and sea level rise, associated with climate change.[4]

What can be done to prevent this? Our own answer – drawing upon the April 2010 Cochabamba, Bolivia climate justice conference declarations – is the decommissioning of the CDM mechanism and its replacement with a suitable climate debt payment mechanism. But many who followed the Durban United Nations Framework Convention on Climate Change Conference of the Parties 17 (COP17) in December 2011 heard that the solution to climate crisis must centre on markets, in order to 'price pollution' and simultaneously cut the costs associated with mitigating greenhouse gases. Moreover, say proponents, these markets are vital for funding not only innovative carbon-cutting projects in Africa, but also for supplying a future guaranteed revenue stream to the Green Climate Fund (GCF), whose design team co-chair, Trevor Manuel (South Africa's Planning Minister), argued as early as November 2010 that up to half the GCF revenues would logically flow from carbon markets.

If we take this logic seriously, of most interest for Africans is one small but important component of the emissions market, the Clean Development Mechanism (CDM). This strategy was established within the Kyoto Protocol in 1997. It aims to facilitate innovative carbon-mitigation and alternative development projects by drawing in funds from northern greenhouse gas emitters in exchange for permitting their continuing pollution. CDMs generate Certified Emissions Reductions (CERs) that act as another asset class to be bought, sold and hedged in the market. The European Emissions Trading Scheme (ETS) is the main site of trading, following a failed attempt at a carbon tax due to intensive lobbying from resistant companies. Originally in 1997, Europe, "didn't want the emissions trading," according to EU environment advisor Robert Donkers. "We were quite cynical about it, but we have implemented it."[5]

CDMs were created to allow wealthier countries classified as 'industrialised' – or Annex 1 - to engage in emissions reductions initiatives in poor and middle-income countries, as a way of eliding direct emissions reductions. Put simply: the owner of a major polluting vehicle, like Shell, can pay an African country to not pollute, in order that Shell is allowed to continue emitting. In the process, developing countries are, in theory, benefitting from sustainable energy projects.

The use of such 'market solutions to market problems' will, supporters argue, lower the business costs of transitioning to a post-carbon world. After a cap is placed on total emissions, the idea is that high-polluting corporations and governments can buy ever more costly carbon permits from those polluters who don't need so many, or from those willing to part with the permits for a higher price than the profits they make in high-pollution production, energy-generation, agriculture, consumption, disposal or transport. But not only was the Durban COP17 utterly useless for making the vital greenhouse gas emissions cuts of 50 percent by 2020, for ensuring a 'Climate Debt' is paid from North to South covering the sorts of damages Annan specified under a 'polluter pays' logic, or for establishing a transition path to a post-carbon society and economy. Even within the very

4. Global Humanitarian Forum, "The human impact of climate change," New York, 2009, http://www.global-humanitarian-climate-forum.com/uploads/An___Impacts.pdf.

5 *Washington Post*, 'Kyoto credits system aids the rich, some say,' 11 March 2005, http://www.washingtonpost.com/ac2/wp-dyn/A28191-2005Mar11?language=printer

limited, flawed strategy of carbon markets, there were mixed outcomes from the Durban COP17. In spite of Manuel's efforts to bring emissions trading into the GCF, where it does not belong, and in spite of the United Nations CDM Executive Board's decision to allow 'Carbon Capture and Storage' experiments to qualify for funding, the most profound flaws in the existing market were not addressed. Without an ever-lowering cap on emissions, the incentive to increase prices and raise trading volumes disappears. Worse, in this context of shrinking demand, the world faces increasing sources of carbon credit supply in an already glutted market. And fraud continues, including in Durban's own celebrated pilot CDM project, the Bisasar Road landfill which converts dangerous methane emissions into electricity.

As carbon market specialist Payal Parekh of climate-consulting.org concluded,

> Since there is now a second commitment period under the Kyoto Protocol, the CDM is still alive. The problem is that there are still no targets in the second commitment period; Japan, Russia, Canada and USA will not be participating, while Australia and New Zealand are mulling over participation. Given the current low price of the carbon credits coupled with economic downturn in Europe, there is unlikely to be a demand or need for carbon credits. According to the International Emissions Trading Association the Durban outcome did nothing to increase demand for carbon markets, the key issue in their view… The EU would like to have a new market-based mechanism designed under the auspices of the COP to ensure a harmonised global market. Since the EU has also banned the use of CDM credits from projects registered after 2012 in non-LDC countries (projects in non-LDCs that have their crediting period renewed post-2012 remain eligible), it would prefer a new market mechanism under the UNFCCC rather than having to make bilateral agreements with a number of countries… Rather than strengthen commitments to reduce greenhouse gas emissions, the carbon markets are being used to further weaken action on climate change. Given that pledges are so weak, it is quite incomprehensible why developed countries are even putting so much energy into expanding markets, instead of increasing ambition by committing to deeper emission reduction targets and closing accounting loopholes.[6]

In sum, Durban left the world's stuttering carbon markets without a renewed framework for a global emissions trading scheme. Durban turned the Kyoto Protocol – which is now applicable to only 14 percent of world greenhouse gas emissions – into a 'Zombie' (walking-dead) because its heart, soul and brain (binding emissions cuts) all died, as former Bolivian ambassador Pablo Solon put it.[7] All that appears to be moving is the stumbling and indeed crashing commitment to CDMs. These markets can be expected to die completely if Qatar's COP18 does not generate more commitments to legally-binding emissions cuts. And judging by Washington's threat, it won't be until 2020 – the COP26! – that the United States will review its own targets: the Copenhagen Accord's meaningless 3 percent cuts offered from 1990-2020. By then it will be too late, because the Kyoto

6. Payal Parekh, 'What Durban means for carbon markets', 13 January 2012, http://www.climate-consulting.org/2012/01/13/what-durban-means-for-carbon-markets/

7. Pablo Solon, Wolpe Lecture at the University of KwaZulu-Natal, Durban, 2 December 2011, http://ccs.ukzn.ac.za.

Protocol's mistaken reliance on financial markets means that the period 1997-2011 will be seen as the lost years of inaction and misguided financial quackery – when we urgently need the period going forward from 2012 to be defined as an era that humanity took charge of its future and ensured planetary survival.

To do so, requires understanding, first, why carbon markets are crashing, then why CDMs 'can't deliver the money' to Africa using a variety of case studies to make the case, and finally why an alternative 'climate justice' strategy should be adopted instead.

Faith in markets dashed by Durban

For those hoping Durban would provide a better global-scale negotiating terrain, the opportunity has been lost. The balance of forces will not improve in Qatar in December 2012, given the prevalence of irresponsible major powers – best represented by Ottawa's withdrawal from the Kyoto Protocol just after the COP17 – and the probability that in Washington, Republican Party rightwing climate deniers will prevent further concessions. There are no prospects that the European Union's Emissions Trading Scheme will turn around in the near future, and only a few minor national and subnational trading experiments appear on the horizon. Only the $100 million World Bank-European Union 'Partnership for Market Readiness' continues the myth that markets are an appropriate strategy, through grants to gullible officials in Chile, China, Colombia, Costa Rica, Indonesia, Mexico, Thailand, Turkey and Ukraine. As even the pro-trading Point Carbon news services remarked just after the Durban COP17 ended,

> such initiatives are essential to ensure new markets get off the drawing board because a nervous private sector has little appetite to invest in new programmes without further political guarantees that someone will buy the resulting credits… the so-called Durban Platform has done little to boost demand by getting countries to further cut emissions, meaning profits for investors will be slim… while a lot of the focus of the last fortnight of UN meetings was on supply of carbon credits, not one country deepened its carbon target, leaving international carbon offset prices languishing at near record lows – something unlikely to entice investors.[8]

Confirmed Reuters news service,

> Carbon markets are still on life support after [the COP17] put off some big decisions until next year and failed to deliver any hope for a needed boost in carbon permit demand… Many traders and analysts said the agreement will do little for carbon prices which are at record lows, as the two main EU and UN-backed markets are stricken by flagging investments, an oversupply of emissions permits and worries about an economic slowdown. "It's a sedative situation, in which a sick market needs a cure and instead of deciding which cure to use, the doctors keep using pain relief to gain more time to make the final prognosis," said AitherCO2 carbon trader Jacopo Visetti.[9]

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8. Susanna Twidale, 'Durban deal delays debate on new markets', *Point Carbon,* 13 December 2011.
9. Reuters, 'Carbon markets still on life support after climate deal', 13 December 2011.

The EU system was meant to generate a cap on emissions and a steady 1.74 percent annual reduction, but the speculative character of carbon markets gave perverse incentives to stockpile credits as large corporations as well as governments like Russia (with 'hot air' excess emissions capacity subsequent to their 1990s manufacturing collapse) gambled that the price would increase. With the market collapsing, the next perverse incentive is to flood the market so as to at least get some return rather than none at all when eventually the markets are decommissioned, as happened to the Chicago climate exchange. (Those who held shares in the Chicago exchange subsequently sued the high-profile founder, Richard Sandor, for misrepresenting the value of their assets.)

As a result, a month after Durban's denouement, it was evident to the French bank Societe Generale that "European carbon permits may fall close to zero should regulators fail to set tight enough limits in the market after 2020" – and without much prospect of that, the bank lowered its 2012 forecasts by 28 percent.[10] The 54 percent crash for December 2012 carbon futures sent the price to a record low, just over €6.3/tonne. And worse, an additional oversupply of 879 million tons was anticipated for the 13 years through 2020, partly as a result of a huge inflow of UN offsets: an estimated 1.75 billion tonnes. This glutting problem is not only due to the demand deficit thanks to the COP17 negotiators' failure to mandate emissions cuts, but is also in part due to the lax system the UN appears to have adopted. All manner of inappropriate projects appear to be gaining approval, especially in Africa, and even in a site – Durban's Bisasar Road – where there was such intense eco-social contestation that even the World Bank dropped its support.

According to Professor David Victory, a leading carbon market analyst at Stanford University, as many as two-thirds of registered carbon emissions reductions do not constitute real cuts. More than 70 per cent of accredited CDM projects CERs directly related to trifluoromethane (HFC-23), a greenhouse gas used a refrigerant. It was estimated by the CDM Secretariat that a ton of HFC-23 in the atmosphere has the same effect as 11,700 tons of CO2. Yet According to a 2009 paper, 'Scaling The Policy Response To Climate Change[11],' by Benjamin Sovacool and Marilyn Brown, the value of this scam exceeded €4.7 billion. Sovacool and Brown's study also evaluated 93 randomly selected CDM projects and found that "in a majority of cases, the consultants hired to validate CERs did not possess the requisite knowledge needed to approve projects, were overworked, did not follow instructions, and spent only a few hours evaluating each case." This problem appears widespread in Africa, including Durban.

The additional problem, in the wake of Durban, is that many credits issued by middle-income countries are destined to become 'junk assets' with national governments writing them off by 2013. After assessing UN Data, Bloomberg news noted both the glut in the market as well as the consequences for 'phased' out stocks: "A UN program that encourages reductions in greenhouse gases awarded almost twice as many credits this year as in 2010 for projects that destroy industrial gases known as HFC-23 and nitrous oxide…With Europe set to stop recognizing some credits in little more than a year, investors are 'racing to beat'

10. Catherine Airlie and Matthew Carr, 'EU, UN carbon prices could fall "close to zero", SocGen says', Bloomberg, 17 January 2012.
11. Benjamin K. Sovacool, Marilyn A. Brown. 'Scaling the policy response to climate change', *Policy and Society*, Vol. 27, No. 4. (March 2009), pp. 317-328.

the ban."[12] This junk-sale mentality just adds to the underlying glut. Bloomberg cited investment analysts such as Geoff Sinclair, head of carbon trading at Standard Bank Plc, who described it as a future 'junk market'. But until the ban, both credits had racked up over 500 million CERs worth more about €2.5 billion.[13]

Unlike soft and hard tangible commodities such as corn or gold, the conceptualization of carbon credits exists purely on the basis of 'authorisation' on the part of national governments. If 'deauthorised', the entire credit market – and the justification of hundreds of billions of dollars worth of carbon trades – becomes pure fiction. Chances are that methane – yet another consistently gamed gas – will also soon become a junk asset. It turns out,

To be sure, the fact that the Kyoto Protocol was nominally extended a few years means that CDMs will continue to be traded, even though from 2007 to 2010 the volume of activity fell by 80 percent. According to Jonathan Grant, director of carbon markets and climate policy at PricewaterhouseCoopers: "Thanks to Durban, the CDM will live to see another day, but demand for credits for these projects is lackluster. Carbon markets are expected to stay in the doldrums, because of oversupply in the (European carbon) market as a result of the recession." According to Barclays Capital's lead carbon researcher, Trevor Sikorski, there are vast surpluses of credits – at least a billion carbon credits – and hence "Supply is still the fundamental problem." That problem will be exacerbated by pressure on the voluntary markets from new Reducing Emissions through Deforestation and Forest Degradation (REDD) offsets as well as by the UN Executive Board's decision to include Carbon Capture and Storage experimentation in CDMs.

Media-blind faith in markets

One of the most important determinants of markets is the quality of information that participants get. The leading business newspaper on the African continent is Johannesburg's *Business Day,* serving Africa's largest financial marketplace (in Sandton, Johannesburg) and the continent's largest emitters. (Indeed the world's largest single-source CO2 emissions site is Sasol's Secunda operation.) For that reason, it would be natural for the respected *Business Day* newspaper to pick up a seemingly-limitless supply of news – e.g. from Reuters' pointcarbon.com service – about the world carbon markets, especially given the heavy reliance of Durban's COP17 outcomes on healthy markets.

The Durban Group critique

Frustration with CDMs in Africa reached a critical mass as early as 2004 when the Durban Group for Climate Justice gathered for an historic meeting. A global civil society network, the Durban Group[14] was formed to oppose carbon trading's 'privatization of the air'. From the vantage point of an austere Catholic mission on Durban's highest central hill, the Glenmore Pastoral Centre, a score of the world's critical thinkers convened by the Swedish

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12. Bloomberg 'Carbon credits turning "Junk" as ban shuts door,' 7 December 2011, http://climate-connections.org/2011/12/07/carbon-credits-turning-junk-as-ban-shuts-door-energy-markets/
13. *Ibid*
14. http://www.durbanclimatejustice.org/

Dag Hammarskjold Foundation, deliberated over the neoliberal climate fix for several days. We worried that the main test case, the EU's Emissions Trading Scheme, not only failed to reduce net greenhouse gases there, but suffered extreme volatility, an inadequate price, the potential for fraud and corruption, and the likelihood of the market crowding out other, more appropriate strategies for addressing the climate crisis. The critique can be summed up in eight points:

- the idea of inventing a property right to pollute is effectively the 'privatization of the air', a moral problem given the vast and growing differentials in wealth inequalities;

- greenhouse gases are complex and their rising production creates a non-linear impact which cannot be reduced to a commodity exchange relationship (a tonne of CO2 produced in one place is accommodated by reducing a tonne in another, as is the premise of the emissions trade);

- the corporations most guilty of pollution and the World Bank – which is most responsible for fossil fuel financing – are the driving forces behind the market, and can be expected to engage in systemic corruption to attract money into the market even if this prevents genuine emissions reductions;

- many of the offsetting projects – such as monocultural timber plantations, forest 'protection' and landfill methane-electricity projects – have devastating impacts on local communities and ecologies, and have been hotly contested in part because the carbon sequestered is far more temporary (since trees die) than the carbon emitted;

- the price of carbon determined in these markets is haywire, having crashed by half in a short period in April 2006 and by two-thirds in 2008, by another 50 percent during 2011, thus making mockery of the idea that there will be an effective market mechanism to make renewable energy a cost-effective investment;

- there is serious potential for carbon markets to become an out-of-control, multi-trillion dollar speculative bubble, similar to exotic financial instruments associated with Enron's 2002 collapse (indeed, many former Enron employees populate the carbon markets);

- as a 'false solution' to climate change, carbon trading encourages merely small, incremental shifts, and thus distracts us from a wide range of radical changes we need to make in materials extraction, production, distribution, consumption and disposal; and

- the idea of market solutions to market failure ('externalities') is an ideology that rarely makes sense, and especially not following the world's worst-ever financial market failure, and especially not when the very idea of derivatives – a financial

> asset whose underlying value is several degrees removed and also subject to extreme variability – was thrown into question.[15]

With Europe as the base, world emissions trade grew to around $140 billion in 2008 and although markets then went flat due to economic meltdown, increasing corruption investigations and Copenhagen-induced despondency, the trade in air pollution was at one point projected to expand to $3 trillion/year by 2020 if the US were to sign on. The $3 trillion estimate didn't even include the danger of a bubbling derivatives market, which might have boosted the figure by a factor of five or more.[16]

In November 2010, a new estimate of up to $50 billion/year by 2020 in North-South market-related transfers and offsets emerged from a United Nations High-Level Advisory Group on Financing for climate mitigation and adaption, including South African planning minister Trevor Manuel, later a co-chair of the Green Climate Fund.[17] World climate managers evidently hope to skimp on grants and instead beg business to push vast monies into CDMs instead.

As discussed later, Durban is an important guinea pig, not only for hosting the COP17, but for initiating SA's lead CDM pilot, the Bisasar Road landfill. There, methane from rotting rubbish is converted to electricity and fed back into the municipal grid. As argued by Khadija Sharife, the CDM was set up illegally because it fails the crucial test of its validity for raising international funding, 'additionality'. It was always assumed that the R100 million estimated cost of the project would not be justified by the small amount of electricity fed into Durban's municipal supply, and hence that the R100 million would have to come from external sources. But as Sharife notes, Durban officials now concede that the Bisasar Road methane-electricity project would have gone ahead without the external credits. This is scandalous and requires an urgent rethink of the entire global, national and local carbon trading framework.

After helping set it up, the World Bank refused in August 2005 to take part in marketing or purchasing Bisasar Road emissions credits. Local activists say the reason was growing

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15. The analysis of emission market contradictions generated by Larry Lohmann is probably the most sophisticated, e.g., see Lohmann, L. 2006. *Carbon Trading: A critical conversation on climate change, privatisation and power*, *Development Dialogue*, 48, September, http://www.dhf.uu.se/pdffiler/DD2006_48_carbon_trading/carbon_trading_web_HQ.pdf; Lohmann, L. (2009a), 'Climate as investment', http://www.thecornerhouse.org.uk/pdf/document/Climate%20as%20Investment.pdLohmann, L. (2009b), 'Neoliberalism and the calculable world: The rise of carbon trading', in K. Birch, Mykhnenko, V. and Trebeck, K. (eds.), *The Rise and Fall of Neoliberalism: The Collapse of an Economic Order?*, London: Zed Books; Lohmann, L. (2009c), 'Regulatory challenges for financial and carbon markets,' in *Carbon & Climate Law Review*, 3(2); Lohmann, L. (2009d), 'Toward a different debate in environmental accounting: The cases of carbon and cost-benefit', in *Accounting, Organisations and Society*, 34(3-4): 499-534; and Lohmann, L. (2010), 'Uncertainty markets and carbon markets: Variations on Polanyian themes', http://www.thecornerhouse.org.uk/pdf/document/NPE2high.pdf
16. See Nina Chestney and Michael Szabo, 'Emissions traders expect US carbon market soon,' Reuters, May 28, 2009, http://www.reuters.com/article/GCA-GreenBusiness/idUSTRE54R4YP20090528, last accessed October 11, 2009.
17. United Nations, Report of the Secretary-General's High-level Advisory Group on Climate Change Financing, New York, 5 November 2010, http://www.un.org/wcm/webdav/site/climatechange/shared/Documents/AGF_reports/AGF_Final_Report.pdf

awareness of Durban's notorious environmental racism. In March 2005, just as the Kyoto Protocol came into force, a *Washington Post* front-page story revealed how community organizer Sajida Khan suffered cancer from Bisasar Road's toxic legacy.[18] Back in 1980, the landfill – Africa's largest – was plopped in the middle of Durban's Clare Estate suburb, across the road from Khan's house, thanks to apartheid insensitivity. Instead of honoring African National Congress politicians' promises to close the dump in 1994, the municipality kept it open when $15 million in emissions financing was dangled. After Khan died in mid-2007 after her second bout with cancer – which she believed was landfill-induced – Clare Estate civic pressure to close Bisasar subsided and Durban began raising €14/tonne for the project from private investors.[19]

Similar controversy surrounds the Reduced Emissions from Deforestation and forest Degradation programme. In theory, REDD sells investors forest protection. But at Cancún, notwithstanding disagreements in civil society, it was seen as a boon to voracious commercial forestry and a danger to indigenous peoples, given that proper safeguards were not adopted in Cancún. And everyone from EU climate commissioner Connie Hedegaard (a Danish conservative who hosted the 2009 Copenhagen summit) to Greenpeace warned that REDD could wreck fragile carbon markets, not only due to socio-ecological forest controversies but because a fresh glut of credits would again crash the price.[20] As Hedegaard put it, REDD "could undermine the entire carbon market."[21] Likewise, an emerging idea (mainly promoted by the World Bank) that soil-related carbon sequestration should be rewarded with carbon credits would also flood world markets at a time of both oversupply and receding demand.

In short, the return of market mania to climate negotiations is a dangerous diversion from a daunting reality: the US, China, South Africa and most other big emitters want to *avoid* making the binding commitments required to limit the planet's 2000's temperature rise, ideally below the 1.5°C that scientists insist upon. Naturally the (binding) Kyoto Protocol is a threat to the main emitting countries, which have been working hard since early 2010 to replace it with the voluntary, loophole-ridden Copenhagen Accord. This is the easiest way to understand the procrastination and lack of ambition in the December 2011 Durban deal.

And naturally, the North's failure to account for its vast 'climate debt' continues. To illustrate, Pakistan suffered $50 billion in climate-related flood damage alone in 2010, yet the total on offer from the North to the whole world was just $30 billion for 2010-12, according to promises made in Copenhagen. By the time of the Durban COP17, there was no realistic chance that $30 billion in North-South flows would actually be delivered.

Market failures

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18. Shankar Vedantam, "Kyoto credits system aids the rich, some say," *The Washington Post,* 12 March 2005.
19. Patrick Bond, 'True cost of Durban's waste strategy', *The Mercury,* 2 February 2010.
20. Chris Lang, 'New Greenpeace report: Trading in forest carbon would crash carbon markets', *REDD-Monitor,* April 1 2009, http://www.redd-monitor.org/2009/04/01/new-greenpeace-report-trading-in-forest-carbon-would-crash-carbon-markets/
21. Jessica Cheam, 'Ministers expected to speed UN climate talks, forest deal could be delayed', *Ecobusiness.com,* December 7, 2010, http://www.eco-business.com/news/ministers-expected-speed-un-climate-talks-forest-d/

Climate negotiators should have known that carbon trading was a charade that would do nothing to reduce global warming.

What was an incentive scheme meant to provide stability and security to clean energy investors had become the opposite. A low and indeed collapsing carbon price – futures at around €4/tonne in mid-December 2011, down from a peak seven times higher six years earlier – was useless for stimulating the kind of investment in alternatives needed: for example, an estimated €50/tonne (at minimum) is required to activate private sector investments in 'carbon capture and storage', the as-yet-non-existent (and extremely dangerous) technology by which coal-fired power stations could, theoretically, bury liquefied carbon emitted during power generation. Substantial solar, tidal and wind investments would cost much more yet. The extreme volatility makes it abundantly clear that market forces cannot be expected to discipline polluters.

The only real winners in emissions markets have been speculators, financiers, consultants (including some in the NGO scene) and energy sector hucksters who made billions of dollars in profits on the sale of notional emissions reduction credits. As the air itself became privatized and commodified, poor communities across the world suffered and resources and energy were diverted away from real solutions. But one of the most powerful set of critiques came from the inside: internal contradictions which created a tendency to repeatedly crash the market and prevent it from carrying out actual emissions reductions.

These problems were sensed, to some extent, by the very founders of the notion of environmental markets. Canadian economist John Dales (who died in 2007) first justified trading in emissions rights by applying market logic to water pollution in a seminal 1968 essay, "Pollution, Property, and Prices." Waste quotas were imposed along with a market in "transferable property rights ... for the disposal of wastes", interchangeable amongst firms.[22] Thirty-three years later, he expressed doubts about carbon markets in an interview: "It isn't a cure-all for everything. There are lots of situations that don't apply. It is not clear to me how you would enforce a permit system internationally. There are no institutions right now that have that power."[23]

Also in the late 1960s, in the US, graduate economics student Thomas Crocker had famously advocated emissions trading for discrete problems, but in 2009 told *The Wall Street Journal,* "I'm skeptical that cap-and-trade is the most effective way to go about regulating carbon."[24] And a leading financier with intimate knowledge of financial fraud and market failure, George Soros, argued in 2007 that carbon trading would be ineffective: "The cap and trade system of emissions trading is very difficult to control and its effects are diluted… It is precisely because I am a market practitioner that I know the flaws in the system."[25]

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22. Dales, J. 1968. Pollution, Property and Prices: An essay in policy-making and economics, Toronto: University of Toronto Press, p.85

23 Jon Hilsenrath, 'Cap-and-trade's unlikely critics: Its creators – economists behind original concept question the system's large-scale usefulness, and recommend emissions taxes instead,' *Wall Street Journal*, August 13, 2009.

24. *Ibid.*

25. Hugh Wheelan, 'Soros slams emissions trading systems: Market solution is 'ineffective' in fighting climate change', *Responsible Investor,* October 18, 2007, http://www.responsible-investor.com/home/article/soros_slams_emissions_cap_and_trading_systems/ In early 2010, Soros U-turned

On the other hand, market advocates claimed a degree of success, especially in a US pilot aimed at tackling acid rain. Emissions trade made progress after the 1980s Reagan/Bush administrations neutered the US Government's ability to prohibit destructive activities like sulphur dioxide emissions. Instead, a 1990 amendment to the *Clean Air Act* legalized trade in sulphur dioxide. A cap was imposed and polluters gradually reduced to the levels required to mitigate emissions so as to avoid acid rain.

However, on closer examination, this approach was far less successful than the parallel European 'command-and-control' environmental policy on SO2. Critics of emissions trading insist that SO2 continues to do harm in the US because of the lack of strong regulation, itself a function of power relations in the government-industry nexus. Instead, had command and control strategies – such as the 1999 EPA's New Source Review imposition of scrubbers on older plants (with a 95 percent SO2 removal record) – been applied, the results would have been far more impressive. Command-and-control strategies in Europe had faster and more decisive results (87 percent reductions during the 1990s compared to 31 percent by the SO2 cap and trade), as they did in the US from 1977 (when the *Clean Air Act* was passed) to 1990. Moreover, by addressing only a part of the SO2 from high-emissions sources (about 43 percent emissions reduction from 1990-2007), there were ongoing adverse local impacts of co-pollutants (e.g. mercury, lead, dioxin, nitrous oxide), especially in geographical areas with high concentrations of people of colour.[26]

In spite of the more effective command-and-control alternative, in 1997, the Kyoto Protocol was negotiated to include carbon trading as a core strategy to reduce global emissions. This was because the then US Vice-President Al Gore threatened that his Congress would only sign up if corporations gained the ability to continue emitting above set limits by paying to buy someone else's right to pollute. After co-opting critics in Kyoto, the Clinton-Gore Administration and Congress did not keep their word and, later George W. Bush pulled out of Kyoto. But the idea of carbon trading stuck and in Europe the Emissions Trading Scheme (ETS) was launched in January 2005.

Emissions trading's flawed friends

One reason for carbon trading's acceptance as the primary climate-crisis capitalist management technique was the extraordinary support found in the world's most powerful circuits of capital: finance. As Goldman Sachs critic Matt Taibbi warned in a *Rolling Stone* article six months before Copenhagen,

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and supported carbon trading in the US Senate out of desperation to see some kind of climate legislation pass – but was not reported to have retracted his earlier skepticism about regulation. Instead, he was cited as merely desiring 'a price on carbon': *Business Green, '*Soros calls for US cap-and-trade scheme: Billionaire promises to get 'more engaged' with efforts to tackle climate change', New York, 15 January 2010, http://www.businessgreen.com/bg/news/1801852/soros-calls-us-cap-trade-scheme. In late 2010, he enthusiastically supported forest-related carbon trading in Indonesia.

26. The coal industry initially succeeded in grandfathering in plants built before 1977 so as to avoid CAA regulation, and these old plants were later brought into the cap and trade arrangement. Hence they were allowed to stay open longer by virtue of buying pollution allowances, from more efficient plants. Activists at the US Public Interest Research Group and Clear the Air showed how ongoing environmental health hazards from these beneficiaries of SO2 cap and trade have a class/race bias (Howard Ehrman, [no-offsets] listserve correspondence, 22 January 2010).

Instead of credit derivatives or oil futures or mortgage-backed CDOs, the new game in town, the next bubble, is in carbon credits – a booming trillion dollar market that barely even exists yet, but will if the Democratic Party that it gave $4,452,585 to in the last election manages to push into existence a groundbreaking new commodities bubble, disguised as an 'environmental plan,' called cap-and-trade. The new carbon-credit market is a virtual repeat of the commodities-market casino that's been kind to Goldman, except it has one delicious new wrinkle: If the plan goes forward as expected, the rise in prices will be government-mandated. Goldman won't even have to rig the game. It will be rigged in advance…

Goldman wants this bill. The plan is (1) to get in on the ground floor of paradigm-shifting legislation, (2) make sure that they're the profit-making slice of that paradigm, and (3) make sure the slice is a big slice. Goldman started pushing hard for cap-and-trade long ago, but things really ramped up last year when the firm spent $3.5 million to lobby climate issues. (One of their lobbyists at the time was none other than [Mark] Patterson, now Treasury chief of staff.)… The bank owns a 10 percent stake in the Chicago Climate Exchange, where the carbon credits will be traded. Moreover, Goldman owns a minority stake in Blue Source LLC, a Utah-based firm that sells carbon credits of the type that will be in great demand if the bill passes…

Goldman is ahead of the headlines again, just waiting for someone to make it rain in the right spot. Will this market be bigger than the energy-futures market? 'Oh, it'll dwarf it,' says a former staffer on the House Energy Committee. Well, you might say, who cares? If cap-and-trade succeeds, won't we all be saved from the catastrophe of global warming? Maybe – but cap-and-trade, as envisioned by Goldman, is really just a carbon tax structured so that private interests collect the revenues. Instead of simply imposing a fixed government levy on carbon pollution and forcing unclean energy producers to pay for the mess they make, cap-and-trade will allow a small tribe of greedy-as-hell Wall Street swine to turn yet another commodities market into a private tax-collection scheme. This is worse than the bailout: It allows the bank to seize taxpayer money before it's even collected…

The moral is the same as for all the other bubbles that Goldman helped create, from 1929 to 2009. In almost every case, the very same bank that behaved recklessly for years, weighing down the system with toxic loans and predatory debt, and accomplishing nothing but massive bonuses for a few bosses, has been rewarded with mountains of virtually free money and government guarantees – while the actual victims in this mess, ordinary taxpayers, are the ones paying for it.[27]

Illustrative of the imminent failure of emissions trading was the influx of former Enron employees. In an August 2009 report about Enron alumni in the carbon markets, the *Financial Times* offers not a hint of irony:

"People who were attracted to Enron and its desire to open new and cutting-edge businesses are also likely to be attracted to the carbon market," says Lynda Clemmons, who started the emissions trading desk at Enron in 1994. It also

27. Matt Taibbi, 'The Great American bubble machine', *Rolling Stone,* July 9-23, 2009.

> innovated in the electricity, gas and coal markets, to which carbon is highly correlated, which makes former Enron traders particularly suited to trading carbon. "They bring a breadth of cross-product coverage that makes them natural candidates to look at emissions," according to one industry insider.[28]

Europe's bad example

Mirroring Enron's 2001 crash, by the end of 2009, with Copenhagen hosting the COP15, it was clear that the ETS had failed in its main objectives. Severe price swings showed how erratic and unreliable these markets can be. Each of at least five major spikes up and down from 2006-09 can be explained by specific factors, such as the extreme 2006 crash when it was revealed that the ETS had over-allocated free permits, or the 2008 onset of both generalized financial chaos and economic recession (hence lower-than-normal emissions to offset), or the 2009 post-Copenhagen decline.

But even discounting the ETS's extreme volatility, the more general data began to show an overall trend towards increased emissions. In mid-2009, *Grist* columnist Gar Lipow explained,

> During the three year period where we have verified emissions, emissions among traded entities rose by 1.8 percent. During that same period emissions for the EU as a whole fell… The overwhelming evidence is that the European Trading Scheme is retarding rather than driving emission drops.[29]

The failure to cut emissions through ETS contrasts with another factor: economic decline and deindustrialization in Europe. The continent's 2008-09 year-on-year GDP fall was 4.1 percent and industrial output was down 12 percent. The carbon-intensive construction sector was also adversely affected by the real estate bubble's burst. Given these economic trends, the medium term outlook for the ETS was grim, with even Lord Adair Turner – chair of the UK Climate Change Committee – admitting, "the existing particular form of liberalised market structure has reached the end of its road... Prices [will] struggle to reach €20-30/tonne of CO2e by 2020." Just a year earlier, Turner's committee had optimistically assumed a price of €50 by 2020, high enough to support many alternative energy projects.[30]

But faith in the ETS was shaken again and again by more than these economic factors. Unending tales of scandals and market mishaps emerged from dismayed financiers and business journalists. The intrinsic problem in setting an artificially generated market price for carbon was revealed with the April 2006 ETS crash, thanks to the over-allocation of pollution rights. The EU had miscalculated how to set up the market and granted electricity

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28. Markus Sommerauer, 'A strange alliance making profits for a cleaner cause', *Financial Times,* August 5, 2009; and Solomon Lawrence, 'Enron's Other Secret', *Financial Post*, May 30, 2009, http://network.nationalpost.com/np/blogs/fpcomment/archive/2009/05/30/lawrence-solomon-enron-s-other-secret.aspx.
29. Gar Lipow, 'Cap-and-trade: filling up the political space that should be used for real solutions,' *Grist,* May 31, 2009 http://www.grist.org/article/cap-and-trade-filling-up-the-political-space-that-should-be-used-for-real-s http://tinyurl.com/suckLemon, last accessed October 11, 2009.
30. *Ibid.*

generation firms far too many credits. Carbon lost over half its value in a single day, destroying many carbon offset projects earlier considered viable.

By 2007, the European Commissioner for Energy had admitted the ETS was "a failure." Peter Atherton of Citigroup conceded: "ETS has done nothing to curb emissions…[and] is a highly regressive tax, falling mostly on poor people." Had it achieved its aims? "Prices up, emissions up, profits up… so, not really." Who wins, who loses? "All generation-based utilities – winners. Coal and nuclear-based generators – biggest winners. Hedge funds and energy traders – even bigger winners. Losers…ahem…consumers!"[31] Even the *Wall Street Journal* confirmed in March 2007 that emissions trading "would make money for some very large corporations, but don't believe for a minute that this charade would do much about global warming."[32] In October 2008, with the market crashing, Carl Mortished wrote in *The Times* of London: "The ETS is making a mockery of Europe's stumbling attempts to lead the world in a market-based carbon strategy. It is causing irritation and frustration to the armies of advisers and investors who seek to cajole utilities into big investments in carbon reduction."[33]

Specific carbon offsets and CDMs fared no better in these investigations. *The Economist* hosted a debate on carbon offsets in December 2008, in which Michael Wara of Stanford and Kevin Smith of Carbon Trade Watch argued the proposition that they "undermine the effort to tackle climate change" – and by a readers' vote of 55-45, defeated Henry Derwent of the International Emissions Trading Association and carbon trader Mark Trexler.[34] Not only were voluntary offsets increasingly dubious, but verified CDM projects in the Third World were also considered counterproductive. According to a *Newsweek* investigation in March 2007, "it isn't working... [and represents] a grossly inefficient way of cutting emissions in the developing world." Notorious projects like the Plantar timber monoculture in Brazil secured vast funds, with dreadful consequences for local communities and ecosystems. *Newsweek* called the trade "a shell game" which has already transferred "$3 billion to some of the worst carbon polluters in the developing world."[35]

In early 2009, the *London Times* uncovered problems in Mozambican tree planting investments supported by high-profile celebrities (including Ronnie Wood of The Rolling Stones and actor Brad Pitt), including that "it is almost impossible to guarantee that the trees will survive the length of time needed to offset any significant carbon emissions."[36] As a TransNational Institute Carbon Trade Watch report remarked,

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31. Atherton, P. 2007. Powerpoint, Citigroup, January. http://www.sinkswatch.org/pubs/2007%2009%20Lessons%20from%20the%20European%20Emissions%20Trading%20Scheme%20_2_.pdf, accessed 22 July 2009.
32. *Wall Street Journal.* 2007. Cap and charade: The political and business self-interest behind carbon limits. 3 March. http://www.opinionjournal.com/weekend/hottopic/?id=110009740
33. Mortished, C. 2008. Policy leap vital for any serious cut in carbon emissions. *The Times* (London), 5 November. http://business.timesonline.co.uk/tol/business/columnists/article5083880.ece
34. *The Economist.* 2008. Carbon offsets, 24 December. http://goliveinternet.economist.com/debate/overview/136
35. Vencat, E. 2007. Global warming: No easy fix. *Newsweek International.* 12 March. http://www.climos.com/news/articles/thecarbon.pdf
36. *London Times.* 2009. EU denounces socialite's carbon offset project, 4 January. http://www.carbonoffsetsdaily.com/top-stories/eu-denounces-socialite%E2%80%99s-carbon-offset-project-3524.htm

These failings are not caused by teething problems, but are symptomatic of the extreme difficulties of assessing the value of "carbon," which is a commodity that bears little relation to any single real world object. More generally, the scheme over-estimates the capacity of price to achieving structural change in energy production and industrial practice.[37]

The ETS was delegitimized further in September 2009 when the UN's main verification contractor was disqualified for repeated procedural violations, and in December 2009 when Europol discovered that up to 90 percent of trades in some EU countries were flagrant tax scams.[38] The tide turned further and faster against carbon trading after the Copenhagen fiasco. The failure of the Copenhagen Accord to confirm financing was a major blow to the market, which crashed by 10 percent from December 17-21 2009 as it appeared there would be a serious legitimacy deficit. As *The Guardian* reported in January 2010, "Banks are pulling out of the carbon-offsetting market after Copenhagen failed to reach agreement on emissions targets."[39] Moreover, due to over-allocation of permits and the ongoing economic slump, the ETS would face further declines in price and so, as Anthony Hobley of the law firm Norton Rose reported, "We are seeing a freeze in banks' recruitment plans for the carbon market. It's not clear at what point this will turn into a cull or a rout."[40]

By March 2010, the *New York Times* observed of carbon trading:

The concept is in wide disrepute. Obama dropped all mention of cap and trade from his current budget. And the sponsors of a Senate climate bill likely to be introduced in April, now that Congress is moving past health care, dare not speak its name… It was done in by the weak economy, the Wall Street meltdown, determined industry opposition and its own complexity.[41]

According to Senator Maria Cantwell (a Democrat from Washington State who fruitlessly offered her own non-trading alternative bill to Congress), cap and trade was "discredited by the Wall Street crisis, the Enron scandal and the rocky start to a carbon credits trading system in Europe that has been subject to dizzying price fluctuations and widespread fraud."[42]

Shortly afterwards, yet another example of corruption was the Hungarian government's resale of carbon credits, which when exposed, drove the price of a ton down from €12 to €1 and crashed two emissions exchanges.[43] In December 2010, even the ordinarily pro-trading World Wide Fund for Nature and Öko-Institut attacked steel producers

37. Carbon Trade Watch, 'Submission to Environmental Audit Committee Inquiry on the role of carbon markets in preventing dangerous climate change', Amsterdam, March 2, 2009, http://www.carbontradewatch.org/index.php?option=com_content&task=view&id=257&Itemid=256
38. Europol. Press statement. December 3, 2009. http://www.europol.europa.eu/index.asp?pag=news&news=pr091209.htm
39. T.Webb, 'Copenhagen dampens banks' green commitment', *Guardian*, January 24, 2010.
40. *Ibid.*
41. J. Broder, 'Cap and Trade' Loses Its Standing as Energy Policy of Choice', *New York Times,* March 25, 2010.
42. *Ibid.*
43. Pointcarbon, 'Hungary lifts lid on controversial CER deal', May 14, 2010, www.pointcarbon.com

ThyssenKrupp and Salzgitter as fraudulent carbon profiteers, demanding that "the EU put a halt to the use of fake offsets."[44] In late January 2011, the EU ETS was suspended for weeks due to theft of emissions reductions credits from the Austrian and Czech governments, with some of the better-functioning market regulators – e.g. Finland and Sweden – requiring a full two months before resuming operations.[45]

To underline the market's fragility and vulnerability to fraud, the country that has been the biggest supplier of emissions reductions credits, Ukraine, was suspended by the United Nations from carbon trading in August 2011. The move blocked delivery of more than 78 million units from carbon-reduction projects through 2011, because according to the ICIS Heron consultancy, Ukraine's government "under-reported its greenhouse gas emissions. Experts advising the enforcement branch said Ukraine had failed to act on earlier warnings and it was in non-compliance. The Ukraine argues that many of its actions have stalled due to lack of funding since the recession."[46]

By that time, it was obvious that emissions markets were in crisis and many credits now represented 'zombie carbon', as CarbonTradeWatch's Oscar Reyes put it:

> Proposed emissions trading schemes in the USA, Japan, and Canada have stalled indefinitely; new markets in Australia and South Korea face significant delays; and climate justice activists have successfully blocked the start of a planned scheme in California. Trading has become ever more concentrated around the EU ETS, which could well see carbon permit prices drop to zero if the 27-country bloc adopts stricter guidelines on energy efficiency. Overall carbon trading volumes were lower in 2010 than in the previous year. The CDM, the carbon offsetting scheme at the heart of the Kyoto Protocol, has declined for four years running, with fewer credits purchased from new projects than at any time since the Protocol came into force in 2005. The price of CDM credits continues to fall, and they are now "the world's worst performing commodity."[47]

These flaws did not prevent the new 'sectoral markets' from being proposed for Durban. For governments from the EU, Japan, Australia and Canada – those advanced economies meant to reduce emissions most under Kyoto but which largely failed to do so – the ideal outcome of Durban would be retention of the Kyoto Protocol's carbon trading mechanism without its emissions-reduction targets. But without the US taking a lead on promoting carbon trading in its vast financial markets, the other major emitters would not do so.

With the resurgence of Congressional climate deniers in 2010, the US elite debate over the optimal technical fix to climate change ended, apart from in California where it was

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44. World Wide Fund for Nature, 'ETS credibility at stake as industrial polluters profit yet again', December 14, 2010, http://wwf.panda.org/fr/wwf_action_themes/politique_europeenne/?uNewsID=197955
45. EULib.com, 'Update on transitional measure: EU ETS registries of Finland, Romania, Slovenia and Sweden to resume operations on 21 March,' March 18 2011, http://www.eulib.com/18march-2011-update-transitional-measure-registries-13743
46. ICIS Heron,'UN suspends Ukraine from carbon trading', 12 August 2011, http://www.icis.com/heren/articles/2011/08/26/9488161/un-suspends-ukraine-from-carbon-trading.html
47. Oscar Reyes, 'Zombie carbon and sectoral market mechanisms', *Capitalism Nature Socialism,* 22, 4, December 2011.

delayed by community activists who argued the state's Air Resources Board had not considered other (non-trading) options to comply with state climate legislation. But before the debate had died, even pro-trading economists from the Massachusetts Institute of Technology conceded that the US could well repeat Europe's market and state failures. Denny Ellerman and Paul L. Joskow observed how the ETS's disastrous mismatches of money, permits and polluters logically follow the EU's uneven regulations between countries, and "the differing effects of allocation and auctioning decisions on a partially liberalized electricity sector are likely to be at least as contentious and complicated in the US as they have been in Europe."[48] (The Value-Added Tax fraud was made possible through the buying and selling of permits between jurisdictions and making fake claims.)

In several other areas where the EU ETS remains flawed – political lobbying, inadequate revenue generation, 'rent-seeking activity' and high administrative costs – the danger remained that these would be repeated in the US, according to MIT economists Sergey Paltsev, John Reilly, Henry Jacoby and Jennifer F. Holak. For example, some inefficient coal-fired facilities should urgently be closed, but won't be thanks to EU ETS rules, the economists admitted:

> The cheapest abatement option may be to simply shut down some of the highest emitting facilities, but this rule [trading rights for grandfathered permits] in the ETS creates an incentive to keep them operating at a low level, or to install more expensive abatement technology so that they do not have turn back in valuable allowances.[49]

As for dangers associated with the ETS's Cap and Giveaway of free permits to pollute, the MIT authors warned, "If the allocations are distributed on some 'grandfathering' principle to firms at the point of regulation [which was the case in the main 2009 US congressional legislation], then these firms receive the asset value or scarcity rent." This would mean that the US follows the disastrous EU lead in "paying the polluter for past pollution."[50] Tragically, US legislators and policy-makers knew of such problems in the EU ETS case and yet still promoted a similar scheme, rather than finding an urgent route to cutting emissions directly. The tragedy is even deeper when one moves to Africa for evidence of faith-based not evidence-based assessment of carbon commodification.

Africans "build faith in the carbon market"

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48. Denny Ellerman and Paul Joskow, 'The European Union's Emissions Trading System in perspective', 2008, Pew Center on Global Climate Change, Arlington, www.pewclimate.org/docUploads/EU-ETS-In-Perspective-Report.pdf
49. Gilbert E. Metcalf, Sergey Paltsev, John Reilly, Henry Jacoby and Jennifer F. Holak, 2008, 'Analysis of US greenhouse gas proposals', National Bureau of Economic Research, Cambridge, Working Paper 13980, http://www.nber.org/papers/w13980
50. Sergey Paltsev, John M. Reilly, Henry D. Jacoby, Angelo C. Gurgel, Gilbert E. Metcalf, Andrei P. Sokolov and Jennifer F. Holak, 'Assessment of US cap-and-trade Proposals', 2007, Joint Program on the Science and Policy of Global Change, http://web.mit.edu/globalchange/www/ MITJPSPGC_Rpt146.pdf, last accessed October 11, 2009.

Notwithstanding the chaos and corruption, the frauds and frequent market failures, there are prominent African supporters of the emissions trade. For some, this follows the endorsement of carbon trading by international luminaries seen to be friendly to the continent's interests, of whom the highest profile may well be former Irish president Mary Robinson, who was also the United Nations Human Rights Commissioner and now heads up the Trinity University 'Mary Robinson Foundation – Climate Justice'. In March 2011, Robinson argued in a London School of Economics lecture that carbon trading is "finally starting to reap dividends for Africa and least developed countries..." and that "The experience gained through the design and implementation of successful regional cap-and-trade programs is hugely valuable if shared with developing country regional groups."[51] She provides no justification for these claims, and several efforts made in 2011 to discern what evidence lies behind her optimism came to naught.

For other African carbon trading proponents, their support can also be attributed to substantial conflicts of interest, which arise due to actors with joint roles as climate cooling advocates and carbon traders. According to Michael Dorsey, assistant professor of political ecology at Dartmouth College,

> After more than a decade of failed politicking [on behalf of carbon trading], many NGO types... are only partially jumping off the sinking ship – so as to work for industries driving the problem. Unfortunately, many continue to influence NGO policy from their current positions, while failing to admit to or even understand obvious conflicts of interest.[52]

In the highest-profile African case of NGO support for carbon markets, the late Wangari Maathai, the former Kenyan deputy environment minister and Nobel Peace Prize laureate, such conflicts were not a factor. But there were certainly self-interested reasons for Valli Moosa, South Africa's former environment minister (1999-2004), to promote carbon trading as minister at the critical 2002 World Summit on Sustainable Development. In the latter half of the 2000s, Moosa went on to preside over the IUCN and chaired the board of the continent's largest energy company and CO2 emitter, Eskom, and became actively involved in the trade as a sideline. Then in March 2010, he was implicated, as a member of the African National Congress (ANC) financing committee, in unethically channeling tens of millions of rands in earnings to the ruling party by signing Eskom purchase orders for Medupi's new boilers in a way that directly benefited the ANC, which in turn was financed by the controversial World Bank loan. Even the SA government's Public Protector acknowledged that his role was 'improper.'[53]

Moosa's successor as minister of environment and tourism, Marthinus van Schalkwyk, a youth spy for the white apartheid regime during the 1980s, took control of the National Party in the late 1990s and then dissolved it into the ANC in exchange for the ministerial position. In 2009, he was demoted to tourism minister. An enthusiastic proponent of the

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51. Mary Robinson, "Protecting the most vulnerable," Speech at the London School of Economics Centre for the Study of Human Rights, London, 10 March 2011.
http://www.mrfcj.org/news_centre/2011/mary_robinson_lecture_lse.html
52. Patrick Bond, 'A timely death? Obama and carbon trading', *New Internationalist* 419, January 2009.
53. Ernest Mabuza, 'Valli Moosa-Eskom 'Conflict of Interest', *Business Day,* February 19, 2009.

carbon trade, Van Schalkwyk argued in 2006 that "The 17 CDM projects in the pipeline in Sub-Sahara Africa account for only 1.7 per cent of the total of 990 projects worldwide. To build faith in the carbon market and to ensure that everyone shares in its benefits, we must address the obstacles that African countries face."[54] By 2011 there was no change.

At the International Emissions Trading Association Forum in Washington a year later, he insisted, "An all-encompassing global carbon market regime which includes all developed countries is the first and ultimate aim." [55] Van Schalkwyk was nominated by South Africa to replace Yvo de Boer as UN climate negotiations director in early 2010, but his candidacy failed at the last moment, as Costa Rican carbon trader Christiana Figueres got the position.

Prior to her death in 2011, Maathai, also promoted carbon trading through her own Greenbelt Movement in the expectation that CDMs and emerging proposals for REDD would reward tree-planting in both her indigenous strategy as well as mono-cultural timber plantations. She was also the leading proponent of the document 'Africa speaks up on Climate Change', which fed into the 'African Climate Appeal', a statement which insists upon more CDM finance with fewer strings attached, especially for afforestation:

> African governments should ensure that there is equity in geographical distribution of CDM projects and that this is entrenched in the international policy process. They should negotiate for the requirement of upfront funding of CDM projects to be waived for many African countries who cannot afford it. The appeal calls upon African countries to embark on the development of CDM capacities and projects including capacity building and development of centers of incubation for CDM projects. African governments should explore possibilities of accessing grants to provide upfront funding for CDM projects and also project development and financing through bilateral arrangements. [56]

Maathai criticized three existing funds – the Special Climate Change Fund, the Least Developed Countries Fund and the Bali Adaptation Fund – because these funds have not been able to address concerns of African countries on adaptation, namely:

> Access, adequacy and equitable geographical distribution. The funds are largely inadequate and inappropriately structured; currently relying on a 2 percent levy on CDM projects. Access to the funds has been made difficult, among others, by bureaucratic bottlenecks of the Global Environmental Fund and the World Bank. [57]

Maathai's appeals for a more generous and efficient system for Africa were never properly satisfied, for the Bank continues to play the most critical role in carbon market stimulation, and yet a proliferation of new funds has not changed the basic calculus, namely that CDMs

54. International Environmental Governance dossier, http://www.stakeholderforum.org/index.php?id=11sept

55. Marthinus van Schalkwyk, 'Speech to the International Emissions Trading Association,' http://*www.polity.org.za/.../sa-van-schalkwyk-international-emissions-trading-association-forum-26092007-2007-09-26*

56. Wangari Matthei, 'African climate change appeal', Nairobi, 2009, http://www.ecobuild-africa.com p.4

57. *Ibid.*

‘can’t delivery the money’ to Africa. This report shows, in sum, that the emissions markets were the wrong idea (a neoliberal strategy) in the wrong place (financial markets) at the wrong time (the 2000s era of repeated bubbles and bursts). The following pages spell out these problems in great detail using two case studies: from South Africa and Nigeria.

Chapter 2:
South Africa's pilot CDM, fraud and environmental racism

By Khadija Sharife and Patrick Bond

Introduction

South African corporations and government agencies have had a recent history of attempted – and in the case of the Bisasar Road landfill, successful – abuse of the Clean Development Mechanism. In April 2010, after a long debate about the merits of constructing the world's fourth-largest coal-fired energy facility, the Medupi power plant was proposed by Eskom officials as a potential CDM project, but was not taken to formal application stage.[58] In the same spirit, in 2009, an attempt by Sasol to claim that a gas pipeline investment was 'additional' to pre-existing plans (hence deserving emissions reductions credits) was ridiculed by the Johannesburg activist group Earthlife Africa based on an admission by a company official, and did not pass muster in the UN vetting process.[59]

But the most controversial CDM project is the country's leading pilot: a methane-electricity conversion at Bisasar Road dump in Durban's Clare Estate residential neighborhood. Following introductory information, the subsequent pages detail environmental racism, intra-community conflict, municipal fraud, United Nations incompetence, and a failure of the methane extraction system even on its own terms.

For John Parkin, deputy head of the engineering at Durban Solid Waste, "What makes (the Bisasar Road CDM project) worthwhile is the revenue that can be earned from carbon credits, estimated at 3.1 million certified emissions reduction credits, worth about $15 million, along with some 6-8 megaWatts of electricity over a 20 year lifespan."[60] In late 2006, the French Development Agency pledged long-term loans of $8 million to Durban's landfill gas projects (Bisasar is by far the largest of three), alongside the $1.3 million extended by South Africa's Department of Trade and Industry.

The landfill is Africa's largest. One of three fully permitted landfill sites in Durban, Bisasar was opened for business in 1980 by the apartheid regime. The Group Areas Act, a crucial pillar of the apartheid government's segregation agenda, meant that Bisasar Road would 'import' waste from privileged white areas to impoverished and working-class black areas deprived of basic human rights. Bisasar was emblematic of 4000 disposal dumps created across the country (of which, the government acknowledged, only 200 met minimum environmental standards). Residents of Clare Estate – classified as an 'Indian' and 'coloured' area but with a large African shack settlement from the mid-1980s – lacked access to political, economic and legal recourse. Their attempts at mobilising dissent against the regime were ignored, although the African National Congress pledged in 1994 that the new democratic municipal government would close the racist dump.

Despite ongoing opposition to the dump from residents, and promises by the government to close and rehabilitate the dump, Durban Solid Waste supported the

58. Jocelyn Newmarch, "Eskom seeks Medupi carbon credits," *Business Day*, April 28, 2010.
59. Earthlife Africa (2009), "Press Release: South Africa's emissions offer," Johannesburg, 10 December.
60. Interview with Khadija Sharife, October 10, 2009.

continued use of the dump, as two other sites – in wealthy Umhlanga and impoverished Umlazi township – were shut instead. Described by the municipality as "favourably placed with respect to central Durban, close to a major artery connecting the city to the west, north and south,"[61] the dump processes 3000 to 5000 tonnes of waste daily, including hazardous waste such as sewage sludge and healthcare risk waste. In spite of vehement calls for closure, of the dump's significant leachate and of respiratory problems in the community, the national Department of Water Affairs and Forestry extended the landfill's life cycle in 1996.

Although the permit issued was for general waste only, a meeting between the municipality and national water officials in 1995 resulted in the site's operators being "granted a permit without a buffer zone" even though (as Condition 5.7 of the permit put it), "the permit holder shall accept obnoxious sewage sludge." Hosting 19 million cubic metres of waste, the dump was described by Carl Albrecht, research director of the Cancer Association of South Africa, as a toxic 'cancer hotspot' where residents "are like animals involved in a biological experiment."[62] Bisasar holds a further four million 'available' cubic metres of fully permitted landfill space before critical mass is reached, hence there is potentially another decade and a half of dumping in the black neighbourhood.

Municipal racism and community conflict cemented by global climate finance

Bisasar was opened for business in May 1980 by South Africa's apartheid regime.[63] The primary factor informing the site's selection process, situated in Clare Estate's nature valley, was the Group Areas Act, a crucial pillar of the apartheid government's agenda to legally segregate races through the specific allocation of residential areas determined by race. The systematic exclusion and dehumanization of the majority included gross environmental racism. The politics of waste was taken up by the African National Congress (ANC), the liberation movement that would later come into state power, following the country's first non-racial democratic elections in 1994. But their well-advertised promise to close the landfill after liberation was broken.

The struggle against this project was mainly led by Sajida Khan (1952-2007), a self-taught ecologist. Attempting to shut the dump that ultimately killed her, Khan dedicated half her life to a contest with municipal bureaucrats and the World Bank.[64] Khan was raised in what was the traditionally Indian neighbourhood within Clare Estate, astride a nature reserve that spanned a small valley. In 1980, when Khan was 28, her surroundings were suddenly destroyed by apartheid officials. The peaceful reserve became an unending,

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61. Durban Municipality, "Landfill Disposal" http://www.durban.gov.za/durban/services/cleansing/gastoelec/disposal Page since removed: See cached version: http://webcache.googleusercontent.com/search?q=cache:kzulAppFhl0J:www.durban.gov.za/durban/services/cleansing/gastoelec/disposal+favourably+placed+with+respect+to+central+Durban,+close+to+a+major+artery+connecting+the+city+to+the+west,+north+and+south percentE2 percent80 percent99&cd=1&hl=en&ct=clnk&gl=za
62. Patrick Bond and Rehana Dada, "Putting a price on fresh air," 17 January 2005, http://www.mg.co.za/article/2005-01-17-putting-a-price-on-fresh-air
63. CITATION
64. Patrick Bond, "Privatization of the air turns lethal: 'Pay to Pollute' Principle Kills South African activist Sajida Khan," *Capitalism Nature Socialism,* 18, 4, 2007.

stinking heap of rubbish, which until the late 1990s also included a medical waste incinerator. Khan believed that the neighborhood's involuntary receipt of overwhelmingly wealthy white Durbanites' droppings was the root cause of her two cancer cases, the latter of which was fatal. The reason that Bisasar Road dump was not closed in the early 2000s notwithstanding a very substantial pressure campaign by Khan and 6000 residents, was a commitment by the World Bank to invest a potential $14.4 million grant to convert landfill methane emissions into electricity.[65]

Community opposition to the Bank's CDM and demands for Bisasar Road's closure were not universal. The Khan family built their middle-class house in the 1950s on Clare Road. Some members of the family still reside in the house overlooking (to the west) the dump, directly in the path of prevailing winds which continually coat the area with light landfill dust and disease-carrying flies. As logical as her closure demand was, given the history of environmental racism, there were nevertheless conflicting opinions about how to handle this menacing neighbor. Starting in early 2005, the Abahlali baseMjondolo shackdwellers' movement of Kennedy Road – also directly adjoining the landfill, to the north – did an extraordinary job struggling against adverse conditions and police repression (until in September 2009 many of the leaders were driven away after violent attacks). But throughout the 2000s, the Kennedy Road shackdwellers welcomed the opportunity to have several dozen of their members pick rubbish and informally recycle it while on the dump. Scores more shackdwellers once informally picked materials from the dump, until the municipality's Durban Solid Waste limited access due to safety and health dangers.

Kennedy Road leaders accused Khan of threatening livelihoods and sabotaging the city's offer of a handful of jobs and bursaries (in Uganda) in the event the CDM project got off the ground.[66] Khan had used the word "informals" to describe the shack settlement residents and once advocated that they be compensated and moved to areas nearby (as she herself desired for her family), sufficiently far from the dump (she recommended a buffer for all residents of 800 meters) to be safe from the windswept dust. At the nearby clinic, health workers confirmed that Kennedy Road residents suffer severely from asthma, sinusitis, pneumonia and even tuberculosis. The toxic body load is unknown, but heavy metals and other dangerous substances penetrate the water, air and shifting soils. Khan had a profound empathy for people in the same proximity as cancer-causing and respiratory disease particulates, as she noted in an interview: "Recently a woman was buried alive. She died on the site [picking rubbish, killed by a dump truck offloading]. I could have saved her life."[67]

The leader of Abahlali baseMjondolo, S'bu Zikode, later argued that Durban municipal officials manipulated these socio-racial divisions: "We were used. They even offered us free busses to protest in favour of this project … to damage those who oppose this project."[68] The promised jobs and bursaries that justified the group's earlier support for the CDM never materialized. The leading KwaZulu-Natal based environmental NGO, groundWork,

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65. Khadija Sharife and Patrick Bond, "False solutions to climate crisis amplify eco-injustices," *Women in Action,* 2009, 2.
66. Aiobheann O'Sullivan, *Carbon Credits,* Centre for Civil Society CCS Wired #1 video, Durban, 2005.
67. Interview with Rehana Dada, September 25 2005.
68 groundWorks (2008), 'Wasting the Nation: Making trash of People and Nations' http://www.groundwork.org.za/Publications/gWReport2008.pdf

argued against the municipality's divide-and-conquer politics in a 2008 report, *Wasting the Nation: Making trash of People and Nations:*

> Closing down illegal picking was not possible without their cooperation. But in return for that cooperation they wanted to secure the recycling and site cleaning jobs exclusively for people from Kennedy Road and take over the labour-broking contract with DSW for site cleaners. There are not, in fact, many of these jobs left at Bisasar Road. The commercial recyclers employ 15 people on piece rates at the recycling pad established by DSW, while there are 25 people employed as site cleaners.[69]

In spite of its environmentally racist past and present, Newcombe declared Bisasar to be "operated and maintained on a world-class level."[70] Replied Sajida Khan, "Unlike me, he does not live across the road from Bisasar." As Khan argued, "The community would not have: marched and demonstrated; blocked the entrance to the site; handed a petition with 600 signatures to the mayor; written press articles and voiced our dismay on national television if we had accepted the Bisasar dumpsite." The World Bank was apparently intimidated, and it pulled out of the Bisasar Road project, although two other much smaller methane-electricity CDM projects were funded at the same time. But by July 2007, having been twice struck by the cancer she believed came from particulates that floated across the road into her life-long home, Khan had died.

Was the CDM necessary, 'additional' finance – or part of a multifaceted fraud?

With Khan gone and her personal lawsuit against the city null and void, the municipality then went to the markets, without the World Bank. The French Development Bank assisted with a US$8 million loan, and municipal officials soon constructed the full system of extracting methane, burning and flaring it (with associated incineration hazards given the GHGs and heavy metals that coexist with the methane, including CO2, nitrogen oxide, lead, cadmium and other toxics), powering the turbines, and connecting the generated electricity back into the municipal grid. According to Parkin, "What makes it worthwhile is the revenue that can be earned from carbon credits,"[71] and as of April 2010, this monthly revenue totaled US$600,000.[72]

The World Bank had backed off in 2005 when Khan's fame was at her height – e.g. the lead paragraph in the *Washington Post's* analysis of the Kyoto Protocol when it came into effect that year: "[Sajida] Khan who has fought for years to close an apartheid-era dumpsite that she says has sickened many people in her predominantly brown and black community outside Durban, South Africa, was dismayed to learn recently that she faces a surprising new obstacle: the Kyoto global warming treaty.[73] In 2008, the Bank was replaced by an investment company, Tradings Emissions, which acquired the right to purchase one million

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69 Ibid

70 Ken Newcombe, "Letter to Durban Mayor," http://www.carbontradewatch.org/pubs/skyeng.pdf

71 Financial Mail (2008), 'Hope For Recovery Process', Oct 17 <http://free.financialmail.co.za/report08/green08/qgreen.htm>

72 Impumelelo (2010) Who We Are: Annual Report. http://www.impumelelo.org.za/who-we-are/annualreports/2009_2010.pdf/download (accessed 21 February 2011)

73. Shantar Vedantam, "Kyoto credits system aids the rich, some say," *Washington Post,* March 12, 2005.

emissions reduction credits. The firm's investment advisor Simon Shaw termed Bisasar and the other two landfills "an important project, it is operational, it has a long term future and we anticipate registration shortly. These credits will be a useful addition to our portfolio."[74]

In March 2009, the municipality registered it on the United Nations list of CDM projects, as active through at least 2014. The four million cubic meters of potential Bisasar Road rubbish that is today's remaining capacity – on top of 19 million cubic meters in the dump that are already exuding methane – will allow extraction of methane and damaging on-site conversion of electricity for many years to come. Khan believed that the gas should indeed be removed, but through nearby gas pipes, not burned and flared on site. Khan's goal of Bisasar Road's immediate closure with conversion of the gas for industrial use a long way from residential areas could have been achieved were there better financing systems available than the unstable carbon market.

In contrast, Christina Figueres, a former leading carbon trading expert who in mid-2011 was named Executive Secretary of the United Nations Climate Change Conference, gave Durban's electricity-from-landfill gas project accolades during the COP17. According to South African press reports, she declared that the United Nations had selected the initiative as one of the world's top ten renewable energy projects. Likewise, a World Bank Prototype Carbon Fund website claimed in 2004 that this project

> may be a first of its kind for Africa… 'I think the example we are setting in Durban, working with the World Bank to deal with landfill, is a huge innovation. We are turning dirt and garbage into a raw material that we could grow wealth from. If you wanted to say to yourself, "we want to be the cleanest city in the world", waste, in my view, is the best place to start,' said Obed Mlaba, Mayor of Durban.[75]

At the time of writing, Mlaba – who served as mayor from 1995-2011 – is being investigated for alleged hijack of a tender and preferential tendering treatment given that his daughter's company received a tender to operate a major incineration project at Bisasar Road. Describing it as his post-retirement 'hobby', Mlaba, along with his two daughters Thabiso and Thandeka, acted as directors of the newly created entity Own Environmental Waste Solutions, the company that hijacked the tender from the previous preferential bidder: Environmental Waste Solutions (EWS). That company's Richard Wardrop, a Durban businessman who was initially the majority shareholder, found himself sidelined after Mlaba's entity, incorporated in November 2009, stole the bid. (Thandeka resigned from being a listed director in EWS the following day, while Thabiso remained on board).[76] Indeed, prior to Mlaba's alleged coup of EWS's preferential status, Mlaba himself had acted as a sleeping partner in EWS. Stated Wardrop to the local media, "Sixty percent of the company belonged to me, 20 percent to the Obed Mlaba Family Trust – Obed was one of

74. See reports at: http://www.engineeringnews.co.za/article/ethekwini-cdm-project-sells-cers-to-uks-trading-emissions-2008-11-21; http://free.financialmail.co.za/report08/green08/qgreen.htm; http://www.investegate.co.uk/article.aspx?id=200811210700116463I

75. World Bank Prototype Carbon Fund 2004 website.

76. Independent On Line, "Mlaba and the great tender hijack," 10 April 2011, http://www.iol.co.za/news/south-africa/kwazulu-natal/mlaba-and-the-tender-hijack-1.1041199?showComments=true

our silent partners – and 20 percent to Bheki Mtolo, who was introduced to me by Mlaba."[77]

This was a shallow and readily observable fraud, which because of a business professional's objections, was followed in early 2011 by a South African police investigation, and which may lead to prosecution against the former mayor. But a deeper fraud appears to have been committed: the Bisasar Road project was known by key municipal officials to be ineligible for CDM status because it did not satisfy 'additionality' requirements, which specify that if the project does not need the additional CDM funds – if it would have gone ahead in any case without the funding – then it does not qualify.

This is a highly subjective area for CDM officials to evaluate, especially when an authority as familiar with the project as Parkins testified (on this occasion in 2008 just before going to the UN for certification), "What makes it worthwhile is the revenue that can be earned from carbon credits."[78]

Yet Bisasar Road should not qualify as a CDM project. According to the chair of the CDM Executive Board, Lex de Jonge, "Additionality is the cornerstone of any credible CDM project."[79] That is, without qualification as an additionality, the CDM shouldn't be approved. Yet Parkins revealed in late 2011, "We started the project prior to CDM. We were already done the road, (it) just made it come faster because the funding was there. If the funding wasn't there, we may have had to delay the project until funding could be found through other means…."[80] He continued, "As the City, if we can make some money out of it, I don't see why it shouldn't be done and the whole moral issue is separate from the project….."[81]

When asked to explain his statement, Parkins responded,

> Just remember, it started off as an environmental project in 2003. The Kyoto Protocol was only signed up to 51 percent by 2005. We already started the project and we were going ahead no matter what, so whether CDM became a reality or not, the project was going to go ahead. I don't see that there is a moral issue to make it a more beneficial project… I am a technocrat – I accept there are moral issues… (But) the objection to this project was that they said they will approve the project if you close the landfill site. That was the link. It wasn't 'we were against the project', it was, 'we're against the landfill site'. There is no link to the project and the landfill site. In terms of the landfill site, it will continue for the city's benefit until it is full.[82]

In short, Parkin admitted that the project would have gone head, with or without CDM status – in theory, disqualifying it from CDM status – for the purposes of flaring gas in an economically 'positive' manner. When asked how CDM as justification facilitated the development of the project through City investment, Parkins revealed, "Because when you

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77. *Ibid.*
78. *Financial Mail, "*Hope For Recovery Process," 17 October 2008, http://free.financialmail.co.za/report08/green08/qgreen.htm
79. L. de Jonge, "Development of the CDM over time and in the future," 2009, http://climate-l.iisd.org/guest-articles/development-of-the-cdm-over-time-and-in-the-future/
80. *Africa Report* and Pacifica News journalists taped interview during Durban municipal tour of Bisasar Road landfill, 30 November 2011.
81. *Ibid.*
82. *Ibid.*

motivate to the city, you say this will eventually be an income source and won't be a drain… We have 480 000 credits in the pipeline and issuances waiting for 65 000, so we already have half a million carbon credits at 7 euro."[83]

Would donors such as the French Development Agency (AFD) still have invested in the Bisasar initiative, knowing the facts on the ground? Denis Vassuer is a representative of the AFD, a public institution specializing in the financing of sustainable development projects. Asked about investment preferences and cost differentials, he responded that composting projects far outweighed landfill gas initiatives across the board as they facilitated greater complementary ecological, social and community benefits, and he stated that composting projects were ideally suited to countries in sub-Saharan African with humidity and high levels of organic waste in landfills.[84]

Beira in Mozambique, with 80 percent organic waste (currently being converted into fertilizer by Terra Nova), was identified by Vasseur as one successful project. Bisasar – with 59.9 percent methane richness (the product of decomposing waste) – was another. "We should invest in composting first," he stated, describing already functioning, initiatives in Bangladesh. Given that AFD previously invested nearly $10 million in the project, Vassuer's overall response, strongly leaning towards composting in similar circumstances, was revealing.

Others, like Cathy Lee of Lee International, a company specializing as Emissions Trading Consultants, strongly advocated in favor of Bisasar as a successful carbon trading project. "There is no way to close this dump, right now. If recycling, composting, waste avoidance programmes were extremely successful, it would be far less needed. But right now that is just not reality," she said.[85] Later, on the phone, she would concede that everything she knew about the Bisasar dump was learned from newspapers. When asked by a representative of Global Alliance for Incinerator Alternatives (GAIA) whether recycling and other alternative methods such as waste diversion should be utilised, Lee stated vehemently, "The problem is those are rich countries. You can't do here, what you can do in Europe."[86] In other words, a more climate-appropriate approach could have been considered, but was constrained by two factors: a CDM which locked in municipal environmental racism, intra-community conflict, fraud and ineligibility; and adequate financing to pursue a different route. It is because of the dual problem of CDMs – they amplify problems, and they forego alternative options – that this mechanism should be discontinued, especially if the pilot project for South Africa, one lauded by Figueres, exhibits such extreme contradictions. In Nigeria, even larger CDMs are also opposed by civil society for similar reasons.

83. *Ibid.*
84. *Ibid.*
85. *Ibid.*
86. *Ibid.*

Chapter 3:
CDM causes conflict in the Niger Delta

By Fidelis Allen

Introduction

In the Niger Delta, oil companies have been at the forefront of pushing for CDM projects in the utilization of oil-associated gas, mainly in the form of flaring. A typical feature of the process is the subordinate position of host communities. This process is identical to the causes of conflict that led groups to take up arms against the state and oil companies between the late 1990s and 2009.

Oil companies see CDM projects in the sector as a strategy for continued flaring of gas, on the basis of which application for concessionary funding is made, a position that is already in conflict with local communities. The residents of the Niger Delta are neither beneficiaries from the profits nor able to extract developmental concessions from the companies' facilities (such as reliable electricity, hospitals, good drinking water, education and so on). The problems are evident in the case of Kwale-Okpai and Asuokpu/Umutu gas recovery and utilization CDM projects – whose very existence is decried by environmental justice activists in the Delta, since what they are being rewarded for, reduced flaring, is in any case illegal.

The Kwale-Okpai CDM project is in Ndokwa land in Delta State. The clan is made up of three local government areas, namely, Ukwuani, Ndokwa-East and Ndokwa-West. This suggests the vastness of the area in which the common language is Kwale. Being mainly peasant farmers and fishing by occupation, the land, forest and water as well as the rich biodiversity have remained precious and indispensable for their survival. The oil industry has done great damage to the environment and its resources. And like many communities in the Niger Delta, the community is without hospital, electricity, schools and good roads to compensate for the damage done to the environment.

Out of five Nigerian CDM projects already registered with the UNFCCC, two are in the area of recovery of associated gas that would otherwise be flared at Kwale, Delta State and recovery of marketing gas that would otherwise be flared at Asuokpu/Umutu Marginal Field Nigeria. The projects are claimed to have annual gas emissions reductions of 1,496,934 and 256,793 equivalent of CO_2 metric tonnes respectively.[87]

As early as 2006, when then president Olusegun Obasanjo announced in Washington that the flaring of gas by oil companies would be counted as CDM investment projects, it attracted the anger of the environmental justice movements.[88] Not only was there inadequate consultation in the affected communities, for leaders were only casually told that at some point a project would bring electricity to the community through the CDM.

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87. By way of comparison, a third CDM project, Efficient Fuel Wood Stoves for Nigeria, is tiny, involving import of about 12,500 fuel efficient stoves from a German manufacturing firm and will result in annual greenhouse gas emissions reductions of just 31,309 equivalent C02 metric tonnes. This project has been criticized for importing stoves which could easily have been produced locally.
88. Carbon Trade Watch, "Groups slam Nigeria's submission of gas flare reductions for carbon credits", Amsterdam, 29 March 2006.

In addition, the CDM represents a substantial reward provided to oil companies for mitigating an activity which they should not be doing in any case. As Environmental Rights Action activist Asume Osuoka argued, "Gas flaring is a criminal activity that culprits should not profit from. Oil companies in Nigeria can end gas flaring profitably without CDM credits. Those that need compensation are the community victims and not corporate culprits as the Nigerian authorities are suggesting."[89]

Rewarding illegality

Experts across the world have confirmed the inequity and corruption of a legal system implied in this arrangement. According to Peter Roderick from Britain's Climate Justice Project, "In our view, the acceptance of an associated gas flaring project in Nigeria as a CDM project cannot be justified. If CDM credits were to be granted in respect of activities that are violations of human rights, this would also bring the CDM process into disrepute."[90] From the Institute for Policy Studies in Washington, Daphne Wysham agreed, "This proposal by Nigeria should be regarded as a fraud by the CDM methodology board… to tell companies they will be paid for doing something they should have done decades ago by law is to encourage corporate abuse everywhere."[91]

Although awareness about climate change is currently inadequate and not well spread in grassroots organisations, the environmental justice movement in Nigeria rejects the argument that CDM projects in oil and gas will reduce greenhouse gas emissions. As Nnimmo Bassey argues,

> The Nigerian government's embrace of CDM projects means mortgaging the country's future energy sovereignty and ability to compete in energy production and supply equations in the future. It also gives approval to continued pumping of greenhouse gases into the atmosphere thus deepening the climate crisis.[92]

Many critics object to the rewarding of unethical corporate practice, much of which is in violation of Nigerian law. Gas flaring was outlawed in 1984 through legislation and amended subsequently, most recently through the Gas Flaring Prohibition and Punishment Bill of 2009. Despite these efforts, about 18.9 billion cubic meters of gas is flared annually in Nigeria, nearly 20 percent of the world's total. Conservative estimates put the contribution of CO2 by the Nigerian oil industry at 45 million tonnes/year. A recent report released by Environmental Rights Action/Friends of the Earth argues that it is unethical to pay oil companies to end gas flaring by law which ought to have been complied with several years back.[93]

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89. Now an academic at York University in Toronto, Osuoka was at the time working for Environment Rights Action/Friends of the Earth Nigeria.
90. htt://www.carbonwatch.org
91. http://www.seen.org
92. Nnimmo Bassey, "Foreword", in *Mired in a Fossil Trap, the Nigerian CDM Report*, Benin City, Environmental Rights Action/Friends of the Earth, May 2011.
93. Environmental Rights Action/Friends of the Earth, *Mired in a Fossil Trap, the Nigerian CDM Report*, Benin City, Environmental Rights Action/Friends of the Earth, May 2011

Moreover, based on studies carried out by the organisation's researchers, the report argues that even on its own terms, the claim of potential reduction in greenhouse gas emissions from gas recovery CDM project in Kwale, Delta State has failed.[94] In the case of Pan Ocean project, the project design document claims capture of 75 million standard cubic feet gas daily at Ovade-Ogharefe oil Field, but this is difficult to assess against claims of 98 percent success in CO2 emission reductions when monitoring reports do not provide actual levels of oil production within a definite period of review. Only by knowing the level of production, can one logically calculate standard cubic feet captured daily since the common approach in the oil sector is that a barrel of oil contains about 1000 standard cubic feet of gas.[95] Environmental Rights Action argues that actual emissions reduction in this case was up to 60 percent less than what is contained in the project design. As reported, 309,907 tonnes of C02 emissions was recorded instead of 754,282. This gap speaks volumes about supposed whole essence of carbon trading.

The Kwale CDM project is jointly owned by Nigerian Agip Oil Company (20 percent), Phillip Oil (20 percent) and Nigerian National Petroleum Corporation (NNPC 60 percent). Environmental Rights Action insists that they have failed – in Kwale along with Shell, which currently has a non-CDM gas recovery and utilization project in Afam – in their claim of extremely high CO2 emissions reductions, employment creation, transfer of technology and sustainable development through these projects. Instead, Shell recorded a 30 percent increase in emissions in 2010. Explaining this failure, Environmental Rights Action and other researchers question whether these companies use associated gas or cheaper non-associated gas in their gas recovery and utilization projects. The continuing falls in the price of carbon in the international emissions markets may also be a factor in the use of cheaper non-associated gas in gas utilization projects. If this is true, then it is another dimension to the deceit behind Nigeria's oil and gas CDM projects.

Shell has announced its intention to upgrade its gas recovery and utilization project in Afam to a CDM project shortly, and is also at an advanced stage for securing CDM status for a similar project in Adibawa, Joinkrama in the Niger Delta. For both projects, Shell claims in its PDD to have the potential for sustainable development of local communities with regards to social, economic and environmental improvement. If registered as expected, Shell will gain an additional $7,799,508 in revenues over a 10-year period from a project which ought to have been in existence, paid for as part of internal Shell extraction costs, since gas flaring was banned several years ago.

Ongoing community suffering

The need to ban gas flaring relates to broader climate change considerations as well as local public health. However, contrary to expectations, Kwale communities are still confronted with regular flaring of gas. As Environmental Rights Action argues, "CDM projects in fact create perverse incentives for oil companies to continue gas flaring ad infinitum and as would be apparent later stultify implementation of relevant laws."

It is noteworthy that even the claim of potential poverty alleviation or positive socio-economic impact within the community of the project appears to be a gimmick. Only a

94. *Ibid.*
95. *Ibid.*

handful of the people have gained employment in the main CDM projects. The heat and noise from the flaring of gas has not reduced. And in both Kwale and Shell's Afam reinjection project, electricity supplies which these gas utilization projects are expected to improve have, for neighbouring communities, remained deplorable. More than 80 percent of rural dwellers are not even connected to electricity lines, and if the projects assist electricity generation, this benefits the wealthier urban communities within Nigerian cities.

As Kwale-based writer Majirioghene Bob argues

> When the people of Kwale fetch water from the rains, the containers they use collect oil residue as well as contaminated water. All the fish in Kwale and Uzere are gone, something that is reflected in one of the stories, Common Identity, in my new book, *Deep Sighs*. The air around the oil facility in Kwale is putrid and dank. Politically, the major oil companies supposedly championing CDM issues were actively involved in arming fratricidal warfare between communities, and fighting with groups opposed to the devastating effects of their activities in the Niger Delta, particularly in Kwale, Ogoni and Uzere. As for environmental-economic issues, the oil companies together with officials of the UNFCCC and the Nigerian government of that time were playing all sorts of games with the CDM as it affects these communities.[96]

This testimony is indicative of underlying conflicts with oil companies. The traditional ruler of the Kwale community, Chief Emeka Uwaka, warned in the *Daily Independent* newspaper of Lagos, of continued criminal neglect of Kwale's socio-economic needs.[97] For example, six years after the CDM process began, no community in Kwale has been connected to electricity. The traditional community demand is for at least 50 MW of electricity in compensation for regular gas flaring and the heat associated with it. Even pressure from the presidency – both Umaru Musa Yar' Adua[98] and his successor Goodluck Jonathan – and the National House of Assembly have failed. Neither NAOC nor the government's electricity company, Power Holding Company of Nigeria, have yet connected electricity to these communities in spite of CDM promises. In the meantime, huge financial benefits have accrued to the shareholders and managers of these companies and to the Nigerian government – at the expense of Niger Delta communities.

In sum, the oil-related CDM projects in Nigeria have no prospects for success given the context in which they have been initiated. Such projects are characterized by fraud, exclusion, destruction of natural habitat, and the degradation of the livelihoods of local communities, and of soil and water resources. For these reasons, and from the awareness which Nigeria's leading environmental advocacy group, Environmental Rights Action and its allied community organisations are providing leadership against the oil companies, the government and the CDM process.

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96. Majirioghene Bob is an independent researcher in Kwale, Delta State. He sent the note in quotation via email to me during the research that produced this paper, on 26 October 2011.
97. Francis Onojiribholo, "Kwale Chief laments plight of communities", *Daily Independent*, 16 August 2011.
98. The president instructed then Minister of Petroleum Resources to respond to a letter of complaint by the people of Kwale dated 13 November 2009.