Regulation as Corruption in the Carbon Offset Markets

Cowboys and Choirboys United

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Introduction

When a particular commodity market cannot be regulated, the attempt to regulate it can do no more than create an illusion of regulatability. Deflected into a *cul de sac*, official action to correct abuses sustains the underlying problems, or makes them worse. Regulatory acts become a danger to society. Governance becomes a part of corruption. All this happens regardless of the good intentions of regulators or anti-corruption fighters.

This chapter argues that the carbon offset market is an example of such an unregulatable market, and that attempts to regulate it will only entrench its status as a locus of international corruption and exploitation. But to set the scene, it may be useful to begin with the example of another such market that has been much in the news since 2007: the market in complex new financial derivatives that lies at the root of the recent global economic crash.

These derivatives were unregulatable. Instead of reducing or spreading risk, they amplified it and hid it.[1] Because the risk measurement models used by both companies and regulators gave the illusion that everything was under control, they made things worse. "Giving someone the wrong map is worse than giving them no map at all," the options trader and risk expert Nassim Nicholas Taleb pointed out.[2] US and UK officials, clinging to the dogma that regulation could handle any surprises thrown up by the explosive financial innovations of the 1990s and 2000s (or that the innovations regulated themselves), refused to consider the possibility that certain kinds of product, and certain kinds of market, were simply too dangerous to be allowed to exist. As the market for the opaque new financial products became larger and larger, so did the scope for abuses, cheats and corruption.[3]

The capture of finance policy by the private sector had a lot to do with the refusal to face up to the unregulatability of the new market. Former derivatives traders keen to stoke the booming markets, such as Robert Rubin from Citigroup and Hank Paulson from Goldman Sachs, occupied some of the highest positions in the US government. (Only ex-Wall Street executives, the reasoning went, could understand the vastly complicated world of finance well enough to govern it.) Private companies' own mathematical models were seen as a reasonable basis for regulation at both national and international levels. Orthodox economists in positions of regulatory responsibility such as successive US Federal Reserve Chairmen Alan Greenspan and Ben Bernanke were trained in ways that gave them the same faith in the inherent manageability of the new derivatives markets. Such long-entrenched forms of "legal corruption"[4] were

difficult for ordinary people either to speak against or to counter. There was little space for participating in policy or for questioning the doctrines that everything could be regulated and that "learning by doing" would provide the answers to all problems.

A similar analysis applies to the carbon offset markets. Carbon offsets are inherently unregulatable, for unalterable scientific and logical reasons. Instead of reducing climate risk, they increase it and conceal it, along the way reinforcing environmental and social abuses of multiple kinds.[5] No one is sure how to measure them or indeed exactly what they are.[6] Partly for these reasons, offset projects have encountered persistent implementation problems, many of them documented in this book. Hundreds of projects and millions of credits are accused of being fraudulent, scams for shoring up business as usual – or worse. Scandal after scandal regarding the offset market is splashed across the front pages of newspapers. As former proponents desert the cause of carbon markets[7] and a growing crowd of prominent climate scientists and economists join the chorus of criticism,[8] the larger carbon markets of which carbon offsets are an integral part are poised on the edge of breakdown.[9]

Yet the illusion endures that carbon offset markets could someday be redeemed through reform, regulation or certification. Improved methodologies, it is said, might allow carbon credits to be calculated accurately. Greater oversight could stop fraud. Gaming could be prohibited. Land grabs could be curbed. Best-practice standards and certificates could transform the trade. A transition to renewable energy could be effected. Improving local capacity could safeguard local interests and democratise the process. With proper reforms and better regulation, carbon offsets could someday switch from being a climate danger to being a climate benefit and their generally deleterious social effects ameliorated. "Let's not throw out the baby with the bath water," has been the constant refrain of beleaguered carbon market proponents. "Instead, let's practice 'learning by doing' and maybe eventually the problems will become manageable."

This illusion has practical effects. Under the "air cover" of the claim that it is regulatable, an unregulatable offset market is taking over more and more territory at a time when it should be forced to retreat in an orderly and decorous fashion. As carbon offsets invade first the EU Emissions Trading Scheme, Australian and Japanese trading programmes, and now the incipient US carbon market, with its billions of tonnes of potential demand, the idea that offsets can be regulated has become a major threat to dealing effectively with climate change as well as a cause of social strife.

The illusion of offset regulatability is sustained partly because climate policy has been captured on both national and international levels by an elite alliance comprising big business, commodities traders, financial firms, neoclassical economic theorists and an influential group of professionalized, middle-class environmentalists. All are bent on seeing offset trading expand rather than be abolished.[10] Invented and developed by derivatives traders as well as economic theorists of the Chicago School and elsewhere, carbon trading has dominated global climate policy ever since being forced into the Kyoto Protocol in 1997 by the US delegation led by then Vice President Al Gore, who himself became a big carbon market player.[11] For more than a decade, governments, international agencies and private corporations alike have invested enormous resources in building up infrastructure for offset markets. The largest buyers of Kyoto Protocol Clean Development Mechanism (CDM) offset credits today

are speculators on Wall Street and in the City of London and other financial districts,[12] some of which have poured millions of dollars into lobbying for a US offset market from which they also hope to benefit.[13] CDM offset regulators tend to be either offset buyers and sellers or former or current executives in private-sector carbon businesses, all of whom have a vested interest in seeing the trade expand as well as privileged access to information useful in navigating and promoting it.

In elaborating on these themes, this chapter will suggest responses to the problem of corruption in the carbon markets that look beyond "technical fixes" that attempt to regulate malpractice and administrative abuse. Because the problems of carbon markets go much deeper than is ordinarily understood, it will argue, they demand meticulous and thoroughgoing attention to structural issues of power, knowledge and democracy.

Carbon Market Corruption: The Conventional Understanding

"Beware the Carbon Offsetting Cowboys," warns the Financial Times.[14] "Irregular Carbon Credits Cause Upheaval in the Government of Papua New Guinea," reports The Economist.[15] "Pollution Credits Let Dumps Double Dip", reveals the Wall Street Journal.[16] "The Great Carbon Credit Con: Why are We Paying the Third World to Poison its Environment?" asks the Daily Mail.[17] "Secretive U.N. Board Awards Lucrative Credits with Few Rules Barring Conflicts," according to ClimateWire.[18] "UN Suspends Top CDM Project Verifier over Lax Audit Allegations," reports Business Green.[19] "Europol Expects More Arrests in Carbon Fraud Probe," notes Reuters.[20]

As such headlines attest, uncovering carbon market scandals is by now a minor journalistic industry. The prospective supply of further shocking stories, moreover, is limitless. Dirty installations ranging from industrial pig farms in Mexico to polluting sponge iron works in India are availing themselves of revenues from the trade, with hundreds of enterprises – including most of the 763 Chinese hydroelectric projects applying or planning to apply for carbon credits[21] – eager to take advantage of an opportunity to get a bit of extra free money for conducting business as usual. According to Peter Younger of Interpol, "in future, if you are running a factory and you desperately need credits to offset your emissions, there will be someone who can make that happen for you. Absolutely, organised crime will be involved."[22]

Countering such scandal stories with reassurances that regulation can solve the problems has also become a profitable industry, providing employment to hundreds of technicians, bureaucrats, academics and political figures. The CDM needs "not something new, but rather a change of culture and professional working practices," legal scholar Ray Purdy complacently assures his readers: "more permanent and temporary staff … clear professional service standards … better knowledge-bases and methods of communication." Moreover,

"[t]o allow more transparent oversight and avoid real or perceived conflicts of interest, the [CDM] Executive Board needs to recognize the governance requirements of accountability and clearly distinguish between supervisory and executive roles."[23]

Other observers blandly recycle boilerplate about “due process safeguards”,[24] “enhanced dispute resolution”,[25] “capacity building,” an “internal review mechanism”[26] and improvements in “domestic CDM structures.”[27] To quote Al Gore in recent testimony before the US Congress, “I think there is general agreement that in Copenhagen significant reforms of the CDM, uh, Collective Development Mechanism, uh, Cooperative Development Mechanism, have to be implemented.”[28]

The understanding of corruption and regulation that enables and limits this discussion is narrow. The stories that most journalists and academics tell about corruption in the carbon markets tend to be traditional ones of con artistry, abuse of public office for private gain, and payment of bribes to government officials, as well as, occasionally, a somewhat broader narrative featuring more general abuses of power and wealth that undermine democratic governance and the cause of social justice. Although it has been out of fashion for some time, there are signs, too, that the customary story of conflict of interest may soon be revived as a framework for understanding corruption in carbon trading.

For many journalists and academics, such stories have the great virtue of being familiar and easy to tell and understand. They identify bad guys who are getting away with murder. For many technicians, bureaucrats and politicians, these stories are attractive because they imply that there is a familiar job for them to do: catch the bad guys and formulate and enforce rules that will prevent more bad guys from being tempted into abuses. In these narratives, the problems plaguing carbon markets are due to relative lawlessness, lack of technical standards and incomplete enforcement – problems well within the capability of the prospective heroes of the stories to handle.

On the surface, there is a great deal to be said for these narratives. Many examples spring to mind. However, probe a little deeper and complexities emerge that suggest a less comforting story. What follows will explore both the usefulness and the limitations of three stories that are often told about corruption and regulation in carbon markets, along the way assembling materials for a more politically- and scientifically-informed narrative.

Corruption as Confidence Trickery?

Everyone who participates in or studies the carbon offset market knows that it is a haven for con artists. Businesses and even international financial institutions[29] understand that, as long as they provide clever enough documentation, carbon offsets can become a source of extra funding for ventures they are engaged in that have nothing to do with climate change mitigation: even gas pipelines,[30] fossil fuel-fired generating plants,[31] coal mines[32] and oil wells.[33] An investigation of projects in India by a carbon offset market proponent found that a third were simply business as usual.[34] By the UN’s own rules, most hydropower projects in the Kyoto offset pipeline arguably should not be allowed to produce carbon credits at all.[35] According to one prominent carbon banker, project proponents “tell their financial backers that the projects are going to make lots of money” at the same time they claim to regulators “that they wouldn’t be financially viable” without carbon finance.[36] Carbon consultants often freely fabricate information required on official forms,[37] and the more convoluted offset accounting methodologies become, the more opportunities for fraud emerge. An investigation of Nigerian carbon offsets devised by Western oil

companies and carbon consultant firms, for example, found that it was nearly impossible to determine whether the gas that the companies claimed will be diverted from flaring to productive use will not in fact come from dedicated gas extraction operations, whose production is not flared.[38] Businessman Marc Stuart of the carbon offset trading firm EcoSecurities admits that new schemes for generating carbon credits out of forest conservation involve such a "brutal potential for gaming" that "getting it wrong means that scam artists will get unimaginably rich while emissions don't change a bit."[39]

Is regulation capable of defusing such dangers? Can reform address the relevant problems? Is it possible to "get offsets right", as Stuart suggests it is? There are several powerful reasons for answering "no" to all of these questions. The abuses of power and wealth that constitute carbon market corruption do not derive merely from the misdeeds of individual carbon consultants and profiteers, but inhere in market architecture itself. They are an integral technical component of commodity formation. While individual consultants can and do make use of this market architecture for the gain of their clients and themselves, it is the architecture itself that performs the central abuses. Accordingly, what are conventionally classed as scams or frauds are an inevitable feature of carbon offset markets, not something that could be eliminated by regulation targeting the specific businesses or state agencies involved. Because the underlying problem is not, essentially, a matter of poor implementation or individual malefactors, it can only be eliminated by eliminating the offset market itself.

One central difficulty is that for every offset project, carbon consultants must identify a unique storyline describing a hypothetical world without the project, and then assign a number to the greenhouse gas emissions associated with that world. They then must show that the project makes carbon savings "additional" to those of this baseline world. By subtracting the emissions of the project world from those of the baseline world, they derive the number of carbon credits that the project can sell. Carbon accountants, that is, must present the counterfactual without-project scenario not as indeterminate and dependent on political choice but as measurable, singular, determinate and a matter for economic and technical prediction. This assumption, as Kevin Anderson, Director of the UK's Tyndall Centre for Climate Change Research, observes, is a "meaningless concept in a complex system." As Anderson explains, the counterfactual "baseline" against which the purported emissions savings of a carbon offset project must be measured must be calculated over 100 years to correspond with the approximate residence time of carbon dioxide in the atmosphere. For example, a wind farm in India may claim to be generating carbon credits because it is saving, over a century, fossil fuels over and above what would have been saved without the project. However,

"the wind turbines will give access to electricity that gives access to a television that gives access to adverts that sell small scooters, and then some entrepreneur sets up a small petrol depot for the small scooters, and another entrepreneur buys some wagons instead of using oxen, and the whole thing builds up over the next 20 or 30 years. … If you can imagine Marconi and the Wright brothers getting together to discuss whether in 2009, EasyJet and the internet would be facilitating each other through internet booking, that's the level of … certainty you'd have to have over that period. You cannot have that. Society is inherently complex."[40]

There will thus be no general scientific consensus about the number of credits, if any, generated by a particular carbon project. Even the question whether a project goes beyond business as usual in saving carbon, as carbon trader Mark C. Trexler and colleagues noted years ago, has "no technically 'correct' answer"[41]; as the US General Accounting Office concluded in 2008, "it is impossible to know with certainty whether any given offset is additional."[42]

It follows that it is also impossible to know with certainty whether any given offset is non-additional. Hence it is a misdiagnosis of the recurring scandals in carbon offset markets to say that they are due to consultants claiming falsely that non-additional projects are additional. The problem goes deeper. Scientifically speaking, there is no such thing as "additionality" or "non-additionality", and thus no standard that either market participants or regulators could use either to clarify the accounting rules or to prevent scamming.[43] If it is impossible to distinguish between fraudulent and non-fraudulent offset calculations, regulators' power to enforce climate benefit becomes illusory.[44] They have no choice but to fall back on aesthetic, political or pseudo-scientific criteria in deciding whether to wave projects through. As Lambert Schneider of Germany's Oko-Institut notes, "If you are a good storyteller you get your project approved. If you are not a good storyteller you don't get your project through."[45] The problem, in other words, is not that the tools for regulating the offset market need further development or that they are not being used correctly. The problem is that no such tools exist.

But if the offset markets cannot be regulated, then proceeding as if they could be will inevitably encourage both unscrupulous manufacturers of carbon credits and the Northern fossil fuel polluters who are only too happy to buy them without inquiring too closely into their validity. The central "abuse of public office for private gain" in the carbon offset trade does not stem from individual corporations getting special treatment from individual public officials in return for bribes. It derives, rather, from the way that public officials across the world acquiesce in the use of fake mathematics and science to benefit a fossil fuel-dependent corporate structure as a whole at the expense of public welfare. It is less the antics of market players than the attempt to construct an unfeasible market that is corrupt, and corrupting.

Carbon offset accounting's need to isolate a unique storyline describing a hypothetical world without an offset project leads also to a second abuse of power and wealth inherent in the trade. Offset accounting frames the political question of what would have happened without carbon projects as matter of technical prediction in a deterministic system, while at the same time framing project proponents as free decision-makers whose carbon initiatives "make a difference". Carbon offset mathematics dictates that, in any given situation, "no other world is possible" as an alternative to business as usual except that created by corporations wealthy enough to be in a position to sponsor carbon offsets. This suppression of unknowns built into offset mathematics entails suppression of climate alternatives pursued by the less powerful and wealthy. Among the first observers to call attention to this built-in bias were social activists from Minas Gerais, Brazil campaigning against the attempt of a local charcoal and pig iron company, Plantar, to get carbon credits for the environmentally-destructive eucalyptus plantations it had established on occupied land. The activists categorized the company's argument that without carbon credits it would have to switch from eucalyptus charcoal to more-polluting coal as an energy

source as a "sinister strategy … comparable to loggers demanding money, otherwise they will cut down trees":

"What we really need are investments in clean energies that at the same time contribute to the cultural, social and economic well-being of local populations."[46]

For the activists, carbon accounting's suppression of knowledge of the plurality of choices amounted to an abuse of power blocking popular pathways to an alternative future.

Carbon offset accounting methodology also drives corrupt activity in another, more indirect way, through yet another of its intrinsic features: its promiscuous drive to establish that different technologies in different places are somehow climatically "the same". In its push for liquidity, the carbon offset market incentivizes thousands of technical experts to undertake a relentless search for far-fetched equivalences among the most distant activities. On one day, carbon consultants may devise calculations that make diverting Nigerian methane from flaring to productive use "the same as" shutting down a Nebraska coal-fired power plant. On the next, they will come up with techniques that render the annexation of forested land in the Democratic Republic of Congo "the same as" making efficiency improvements in Spain's housing stock. Rather than seeking ways to effect a structural shift away from fossil fuels in Northern countries, that is, offset market actors are driven toward constructing ever more fanciful equations for shifting climate burdens onto the South in the name of increased liquidity and cost-effectiveness. In political economy terms, the proliferation of such equations reflects a use of expertise and money to take advantage of a multitude of local resources and local political weaknesses across an expanding global field that is ever more difficult to police. Market expansion, far from being a solution to the market's problems, thus not only increases the ecological debt of the North to the South, but is also a recipe for growing obscurity, evasions and cheats of all kinds, greatly advantaging centralized market actors while weakening the possibility of local oversight. As Willem Buiter of the London School of Economics notes, offset accounting requires

"the impossible verification of how much carbon dioxide equivalent would have been emitted in some counterfactual alternative universe. … makes one shout out: impossible! Fraud! Bribery! Corruption! Wasteful diversion of resources into pointless attempts at verification! And indeed this is what is happening before our eyes. Enterprises get paid for not cutting down trees and for installing filters and scrubbers they would have installed in any case. The new Verification of the Carbon Counterfactual industry is growing in leaps and bounds. The amounts of money involved are vast and the opportunities for graft, bribery and corruption limitless. The offset proposal has birthed a monster."[47]

Such a "vastly complicated apparatus," agrees Clive Crook of the *Financial Times*, is by its nature a "playground for special interests."[48] It should be added that existing climate regulation does not even attempt to regulate the secondary market in carbon derivatives, where between 64 and 99 per cent of all carbon trading takes place[49] – regardless of whether regulation would be possible or not.

Corruption as Erosion of the Rule of Law by Money and Influence?

The carbon markets abound in stories of offset developers finding ways of evading the law through bribery or abuses of influence. Officials allied to offset developers may receive land concessions that communities are denied.[50] Faulty project documents are routinely approved by government departments.[51] As Interpol observes, moreover, bribery and intimidation are certain to be ingredients of the growing forest carbon offset market;[52] recently, a nephew of Papua New Guinea's Prime Minister was accused of pressuring villagers to sign away their land for carbon deals despite there being no carbon trade laws in place.[53]

The conventional response to such stories – including that of many environmental NGOs – is to repeat the mantra that regulation is capable of saving the alleged "real potential" of offset markets from the menace of corruption.[54] Such responses again overlook the extent to which the erosion of the rule of law is part of the design of carbon trading, not an incidental feature that can be remedied by applications of "good governance". For an illustration of the point it is useful once again to turn to the Niger Delta.

There, for 50 years, energy companies have been burning off the great bulk of the methane they find in underground oil reservoirs. Although methane is a valuable fuel, it is cheaper for Shell, Chevron and other firms simply to flare it on site than to use it in power plants or reinject it underground. As a result, local people are subjected to continuous noise, light and heat, acid rain, retarded crop yields, corroded roofs, and respiratory and skin diseases. Although flaring is prohibited by law in Nigeria, oil companies have so far contented themselves with paying penalties for non-compliance. In this context, one focus of local and international environmental activism is simply to insist on the rule of law. The Clean Development Mechanism, however, takes breaches of the law in Nigeria as the "baseline" for carbon accounting. The Italian oil corporation Eni-Agip, for example, plans to buy some 1.5 million tonnes per year of cheap carbon dioxide equivalent pollution rights from a project at an oil-gas installation at Kwale that was registered with the UN in November 2006.[55] The core of the credit calculation is that

"whilst the Nigerian Federal High Court recently judged that gas flaring is illegal, it is difficult to envisage a situation where wholesale changes in practice in venting or flaring, or cessation of oil production in order to eliminate flaring will be forthcoming in the near term."[56]

Accordingly, the project creates an incentive for the Nigerian authorities to replace legal sanctions with prices and the rule of law with markets for environmental services.

In many other host countries as well, the Kyoto offset market is creating incentives for emissions-related environmental laws not to be enforced or promulgated, since the greater the "baseline" emissions, the greater the payoffs that can be derived from carbon projects.[57] These incentives are explicitly spelled out in UN policy. In August 2007, for instance, the CDM Executive Board published forms for the submission of applications for a new type of carbon project called programmatic CDM or "programmes of activities" (PoA). A PoA, it stated, could be additional and thus acceptable as CDM even if a law already existed that mandated the measures that the

PoA would bring about, if that law was not being "enforced as envisaged but rather depend[ed] on the CDM to enforce it", or if the PoA would "lead to a greater level of enforcement of the existing mandatory policy/regulation than would otherwise be the case".[58] Here as elsewhere, corruption – interpreted as the erosion of the rule of law by financial interest – is a structural principle of carbon offset trading. Regulation curbing corruption would have to outlaw offset trading itself.

Corruption as Conflict of Interest?

Everyone working in carbon offsets is aware of the conflicts of interest that pervade the trade. These conflicts are present at all levels, but particularly afflict the carbon markets' regulatory systems. For example, Lex de Jonge, head of the carbon offset purchase programme of the Dutch government, is the chair of the Board of the Clean Development Mechanism (CDM), the UN offset market's regulatory body.[59] Other members of the board have meanwhile been accused of being "very active in defending projects that come from their country or that are hosted in their country, or where some companies have a particular interest."[60] Barclays Capital, a major speculator in the carbon markets, boasts openly that "two of our team are members of the Executive Board."[61] In addition, like credit ratings firms in the financial markets, private sector carbon auditors approved by UN regulators have a strong interest in gaining future contracts from the companies that hire them; unsurprisingly, they wave through an overwhelming majority of projects under review.[62] Meanwhile, banks that own equity stakes in carbon offset projects, or are "going long" on carbon credits, may also be carbon brokers or sector analysts, "creating a temptation to bid up carbon prices to increase the value of their own carbon assets."[63] For example, Goldman Sachs owns a stake in BlueSource, a carbon offset developer, and JPMorganChase in Climate Care, another offset specialist.

Within the insular, tightly-knit professional climate mitigation community, moreover, experts are constantly passing through revolving doors between private carbon trading consultancies, government, the UN, the World Bank, environmental organizations, official panels, trade associations and energy corporations. For example, Martin Enderlin, a CDM board member from 2001 to 2005, is now director of government and regulatory affairs at EcoSecurities, the CDM project developer.[64] As one principal of a carbon asset management firm who is also a member of the UN's CDM methodology panel noted at an industry meeting in London in October 2008, "I helped set the rules; now my firm plays by those rules."[65]

Revolving doors host a flow of traffic to and from many other zones of the carbon market as well. James Cameron, an environmental lawyer who helped negotiate the Kyoto Protocol, now benefits from the market he helped create in his position as Vice Chairman of Climate Change Capital, a boutique merchant bank that recruited as staff members Kate Hampton, former climate chief at Friends of the Earth, and Jon Sohn, formerly of World Resources Institute. Hampton was then seconded by Climate Change Capital to the UK's Department for Environment, Food and Rural Affairs (DEFRA) as a senior policy adviser during the UK's G8 summit (which focused on climate change) and EU Presidency. Climate Change Capital's Vice President for Carbon Finance, Paul Bodnar, took charge of climate change finance at the US State Department in 2009. Henry Derwent, a former director of international climate change at Britain's DEFRA, who was responsible for domestic and European climate

change policies, is now president and chief executive of the International Emissions Trading Association, the industry alliance. Sir Nicholas Stern, author of the British government's Stern Report on Climate Change, has meanwhile championed the initiative of his private firm, IDEACarbon, to set up a carbon credit ratings agency – which many observers are likely to see as subject to the same type of conflict of interest that earlier afflicted Moody's and other credit ratings agencies that depended for their income on the companies whose products they were rating.[66] In the unregulated 'voluntary' markets for carbon credits, conflict of interest is also deeply entrenched. Laurent Segalen, formerly a carbon trading manager at the failed Lehman Brothers investment bank, expressed a wide consensus when he affirmed that "traders should be the ones designing and determining the standards."[67] The secretariat of the UK's All-Parliamentary Committee on Climate Change, which proposes regulatory policy for the voluntary carbon offset market, is housed at The Carbon Neutral Company, whose business depends on such regulation. Such conflicts are repeated at the regional and local levels, as noted, for example, in Edward Mupada's chapter in this volume.

Is it possible to get rid of such pervasive conflict of interest through regulation? No, because conflict of interest is inherent in offset market structure. First, the fact that supply and demand in this trade, as well as the nature of the commodity itself, are dependent on decisions made by small elites within governments, all of whom, whether buyers or sellers, are interested mainly in creating as many carbon credits as possible, means that there is little incentive on any side to inquire too closely into whether the manufacture of those credits is good for the climate or not. While buyers of blue jeans care about whether they will wear out or not, acting as a check on the temptation of manufacturers to cut corners, buyers of carbon credits care only about whether regulators will accept them in lieu of local compliance.[68] And while most markets have regulators whose careers depend on checking to see whether the goods on sale are what they say they are, regulators in the carbon offset market, as often as not, are buyers or sellers themselves, whose interests lie elsewhere. "I don't see us as police," the chair of the CDM Executive Board confirmed in 2007.[69] European Commission coordinator for carbon markets and energy policy Peter Zapfel, a disciple of US economist-advocates of pollution trading and an instrumental figure in convincing European bureaucrats and governments to commit themselves to carbon trading,[70] meanwhile has openly urged "cross-fertilization between regulators and regulated."[71] Nor could environmental impact assessments (EIAs) compensate for the lack of market incentives working in favour of climatic stability, even if carbon project EIAs were tasked with assessing climate impacts, which they are not. Throughout the world, conflicts of interest are also an inherent part of the EIA process, since consultants contracted to perform EIAs are typically paid by project developers themselves as a part of regular and accepted practice.

Second, the trade in carbon commodities, like that in advanced credit derivatives, is both so complicated and so lucrative that the experts best qualified to regulate it are almost certain to have vested interests, whether they are involved in making money out of it directly, in advising interested governmental parties to it, or in designing it. As early as 2000, top Intergovernmental Panel on Climate Change scientist John Houghton admitted it was impossible to staff his scientific panel on forestry offset accounting without recruiting experts with financial interests in selling carbon credits.[72] Today, when the largest buyers of carbon credits are financial-sector

speculators bent on creating complex new instruments with them, including Goldman Sachs, Morgan Stanley, Barclays Capital, Deutsche Bank, Rabobank, BNP Paribas Fortis, Sumitomo, Kommunalkredit, Cantor Fitzgerald, Credit Suisse and Merrill Lynch, meaningful regulatory oversight has become even less likely. Any more general public understanding of the tricks of the trade, meanwhile, is virtually ruled out at the start by the complicated nature of the commodities on offer. The recent temporary suspension of the accreditation of the leading verifier of CDM credits, the Norwegian firm Det Norske Veritas,[73] on the comparatively trivial ground that a company employee had signed off on five projects without surveying them, unwittingly reveals the impossibility of regulators' coming to terms with the central issues involved, much less engaging in meaningful action. So does the ineffectual UN reaction to rumblings about corruption on the CDM Executive Board – which has been to admit that determining whether members are subject to conflict of interest is left to "their own individual discretion" and that they need do nothing more than state under oath that they have "no financial interest in any aspect of the Clean Development Mechanism."[74]

Conclusion

Preliminary reactions to corruption and abuse in the carbon offset trade – scandal stories in the news media, a few arrests or suspensions, calls for better regulation – have served a useful purpose in that they have been a first indicator of fundamental problems in market structure. But this first reflex response needs now to be supplemented with analysis of what underpins the scandals: by themselves, knee-jerk calls for "reform" and "regulation" are likely in the end to function only to deepen the roots of social exploitation and climate danger.

A first step is to understand that the principal problems of corruption in carbon markets are not located in the transgressions of individual firms, government officials or rogue traders seen as acts of corruption such as fraud or bribery. That is, the essential problems are not "carbon cowboys" or "bad apples." Rather, they are to be found in the architecture of the markets themselves, which have been the creation of economists, traders, policy wonks, ministers, UN officials, NGOs, scientists and other experts as well as of the corporate sector. As argued above, the contradictions built into the markets – unverifiability of carbon credits, mutually-reinforcing relationships between carbon commodity production and erosion of checks and balances and the rule of law, systematic bias entrenching the power of fossil fuel-dependent corporations at the expense of public interest, and so forth – cannot be resolved by regulation any more than they can be addressed by "learning by doing". To continue to claim that carbon offset markets can be regulated is to legitimise continued corruption and to undermine popular struggles against it, as well as to harm the causes of climate action and climate justice.

By the same token, because the problems are systemic rather than criminal in a conventional sense, to call for the suspension, arrest, prosecution or shaming of the US and European economists, officials, policymakers and experts who have created carbon offset products or promoted their official acceptance is neither appropriate nor necessary. Despite the responsibility of such elites for entrenching inherently corrupt and damaging trading systems in national and international law, the correctible problem lies in the existence of those systems itself, not in their inventors and

advocates; in any case, presumably, no clear legal basis exists for claims of causality or intent to defraud. No more purpose would be served by pursuing the officials and experts responsible than by attempting to prosecute the individuals responsible for the development and spread of certain hazardous chemicals or financial instruments such as collateralised debt obligations.

It should be sufficient, instead, for society to take the perfectly conventional, well-worn and easily implementable self-protective path of simply abolishing the trade in question, just as it has banned, or could ban, the manufacture or trade of certain chemicals, weapons or financial derivatives. Any reasonably thorough investigation into the corruption built into the carbon offset markets show that they require not purification, but elimination. Once the systemic problem is tackled, petty or individual corruption will no longer be an issue: if illegal offset trading aimed at easing compliance with government-mandated emissions limits were carried out at all, it would have to be carried out in public. Doing away with this trade would be a simple, adult and effective approach to preventing a type of corruption which is threatening not only ordinary landholders, workers and victims of pollution but also human flourishing and survival itself.[75]

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[1] Larry Lohmann, "Regulatory Challenges for Financial and Carbon Markets", *Carbon & Climate Law Review* Vol. 3, No. 2 (2009), pp. 161-71 and "When Markets are Poison: Learning about Climate Policy from the Financial Crisis," Corner House Briefing Paper No. 40, September 2009, www.thecornerhouse.org.uk/subject/climate.

[2] Nassim Nicholas Taleb, Preface to Pablo Triana, *Lecturing Birds on Flying: Can Mathematical Theories Destroy the Financial Markets?* (Wiley, 2009).

[3] Lohmann, "When Markets are Poison", supra note 1.

[4] See Andre Standing, *Corruption and Industrial Fishing in Africa*, Anti-Corruption Resource Centre, Bergen (2008), p. 9, for an interesting discussion of legal corruption.

[5] Larry Lohmann (ed.), *Carbon Trading: A Critical Conversation on Climate, Privatization and Power*, Dag Hammarskjold Foundation, Uppsala (2006) and "Carbon Trading, Climate Justice and the Production of Ignorance: Ten Examples", *Development*, Vol. 51, No. 3, pp. 359–365.

[6] Larry Lohmann, "Marketing and Making Carbon Dumps: Commodification, Calculation and Counterfactuals in Climate Change Mitigation", *Science as Culture*, Vol. 14, No. 3 (2005), pp. 203-235.

[7] Tim Webb and Terry Macalister, "Carbon Trade Wrong, says Lord Browne", *The Guardian*, 8 March 2009. Even the academic economists who first mooted the idea of pollution trading in the 1960s are sceptical about the effectiveness of today's carbon markets.

[8] These now include James Hansen, Jeffrey Sachs, Joseph Stiglitz, William Nordhaus, Kevin Anderson and Gregory Mankiw.

[9] The hedge fund Pure Capital, for instance, sees a 30 per cent chance of carbon market collapse. See Lawrence Fletcher, "Hedge Fund Firm Pure Capital Targets Carbon, Food," Reuters, 18 June 2009.

[10] State or regulatory capture occurs when private firms gain undue influence in the shaping of regulation and other policies that affect their own interests. For example, corporations may contribute to a political party's election fund in return for lower environmental standards, or treasury ministries may be staffed by financiers or traders who plan to return to the private sector after promulgating policies that benefit their old firms or harm their competitors. State capture is as prevalent in the North as in the South, and tends to be exacerbated by economic liberalization. State capture is particularly prevalent in carbon markets, since its very product is created by government action and, as financial analyst John Kay explains, "when a market is created through political action, business will seek to influence market design for commercial advantage" ("Why the Key to Carbon Trading is to Keep it Simple,", *Financial Times*, 9 May 2006).

[11] Lohmann, "When Markets are Poison," supra note 1.

[12] United Nations Environment Programme Risoe Centre on Energy, Climate and Sustainable Development, *CDM Pipeline*, http://www.cdmpipeline.org/.

[13] Matt Taibbi, "The Great American Bubble Machine", *Rolling Stone*, Issue 1082-1083 (2009).

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[15] "Money Grows on Trees," *The Economist*, 6 June 2009.
[16] Jeffrey Ball, "Pollution Credits Let Dumps Double Dip: Landfills Find New Revenue in Trading System Meant to Curb Greenhouse Emissions", *Wall Street Journal*, 20 October 2008.
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[22] Sunanda Creagh, "Forest CO_2 Scheme Will Draw Organised Crime: Interpol," Reuters, 1 June 2009.
[23] Ray Purdy, "Governance Reform of the the Clean Development Mechanism after Poznan", *Carbon & Climate Law Review*, Vol. 3, No. 1, pp. 5-15.
[24] Moritz von Unger and Charlotte Streck, "An Appellate Body for the Clean Development Mechanism: A Due Process Requirement", *Carbon & Climate Law Review*, Vol. 3, No. 1, pp. 31-44.
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[27] Wytze van der Gaast and Katherine Begg, "Enhancing the Role of the CDM in Accelerating Low-Carbon Technology Transfers to Developing Countries," *Carbon & Climate Law Review*, Vol. 3, No. 1, pp. 58-68.
[28] International Rivers Network, "What's in a Name? Corker Mentions Our CDM Work in Congress," http://www.internationalrivers.org/en/node/3817.
[29] Lohmann, *Carbon Trading*, p. 147.
[30] Ibid., pp. 292-94.
[31] Catherine Brahic, '"Green" Funding for Coal Power Plants Criticised', *New Scientist* 2697, 27 February 2009.
[32] See, for example, United Nations Framework Convention on Climate Change, "Yangquan Coal Mine Methane (CMM) Utilization for Power Generation Project," Shanxi Province, China, http://cdm.unfccc.int/Projects/DB/TUEV-SUED1169658303.93.
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[34] Channel 4 (UK), "Dispatches: The Great Carbon Smokescreen", 2007.
[35] Haya, *Failed Mechanism.*
[36] *Financial Times*, 16 February 2005.
[37] "Consulting Firms Deny Wrongdoing in Drafting Indian PDDs," *Point Carbon*, 11 November 2005, http://www.pointcarbon.com.
[38] Isaac Osuoka, "Paying the Polluter? The Relegation of Local Community Concerns in 'Carbon Credit' Proposals of Oil Corporations in Nigeria", ms., April 2009.
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[40] Kevin Anderson, testimony before the UK Parliamentary Environmental Audit Committee, 23 June 2009, http://www.parliamentlive.tv/Main/Player.aspx?meetingId=4388.
[41] Mark C. Trexler, Derek J. Broekhoff and Laura H. Kosloff, "A Statistically Driven Approach to Offset-Based GHG Additionality Determinations: What Can We Learn?", *Sustainable Development and Policy Journal*, Vol. 6 (2006), p. 30.

[42] United States General Accounting Office, "International Climate Change Programs: Lessons Learned from the European Union's Emissions Trading Scheme and the Kyoto Protocol's Clean Development Mechanism", GAO Report GAO-09-151 (November 2008), p. 39.

[43] Perhaps partly for this reason, it has been repeatedly proposed that the additionality requirement be eliminated. However, all other proposals for defining what an offset is have proved no less problematic. For example, proposals for "sectoral" or policy-basedcow CDM again leave judgements about whether carbon credits are climatically effective up to officials with vested market interests, with insufficient or nonexistent checks and balances.

[44] All regulation currently proposed for carbon markets assumes incorrectly that the distinction between fraud and non-fraud can be made and enforced. Under the Kyoto Protocol, this assumption forms the basis of the work of the Clean Development Mechanism Executive Board. In the US, it is the unexamined assumption of, for example, the Emissions Allowance Market Transparency Act (S. 2423) proposed by Senator Dianne Feinstein, the Waxman-Markey Act, and the Climate Market Auction Trust and Trade Emissions Reduction System (HR 6316) introduced by Congressman Lloyd Doggett.

[45] Lambert Schneider, presentation at conference on Review of the EU ETS, Brussels, 15 June 2007.

[46] FASE et al., "Open Letter to Executives and Investors in the Prototype Carbon Fund", Espirito Santo, Brazil, 23 May 2003; A. P. L. Suptitz et al., "Open Letter to the Clean Development Mechanism Executive Board", Minas Gerais, Brazil, 7 June 2004. Recent moves by the World Bank and other UN agencies to open up native forests to carbon accounting are similarly viewed as providing an opening for governments to threaten to destroy their forests if they are not granted carbon credits. See, e.g., *World Rainforest Movement Bulletin*, December 2008, www.wrm.org.uy.

[47] Willem Buiter, "Carbon Offsets: Open House for Waste, Fraud and Corruption," http://blogs.ft.com/maverecon/2007/07/carbon-offsets-html/.

[48] Clive Crook, "Obama is Choosing to be Weak," *Financial Times,* 8 June 2009.

[49] Steven Pavett, "How the Carbon Market Works," FERN, forthcoming.

[50] Lohmann, *Carbon Trading*, p. 243.

[51] Ibid., p. 271.

[52] Creagh, "Forest CO_2 Scheme Will Draw Organised Crime: Interpol."

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[55] United Nations Environment Programme Risoe Centre, *CDM Pipeline.*

[56] Det Norske Veritas (DNV), "Clean Development Mechanism Project Design Document Form for Recovery of Associated Gas that Would Otherwise be Flared at Kwale Oil-Gas Processing Plant, Nigeria," 2004, http://www.dnv.com/focus/climate_change/upload/final%20pdd-nigeria%20ver.21%20%2023_12_2005.pdf.

[57] Lohmann, *Carbon Trading*, pp. 148, 292.

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[59] "CDM Market in Good Shape: Official," *Point Carbon*, 2 April 2008.

[60] Gronewold, "Secretive UN Board."

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[62] Ball, "Up In Smoke."

[63] Michelle Chan, "Subprime Carbon? Rethinking the World's Largest New Derivatives Market" (Friends of the Earth, 2009), http://www.foe.org/subprime-carbon-testimony.
[64] Gronewold, "Secretive UN Board."
[65] Notes from "Carbon Finance 2008," *Environmental Finance* Conference, 8-9 October 2008.
[66] Fiona Harvey, "Carbon Credit Ratings Agency is Launched," *Financial Times*, 25 June 2008.
[67] Stien Reklev, "Cowboys or Cavalry?" *Trading Carbon*, December 2007, pp. 27–28. Similarly, the International Emissions Trading Association has argued in a letter to US Senators Dianne Feinstein and Olympia Snowe, who had introduced a carbon market governance bill, that "[t]he market itself recognizes the importance of integrity and exerts discipline on participants … Trading companies set their own trading limits to guard against excessive speculation. The market itself punishes firms that exceed responsible limits by downgrading credit ratings, lowering lines of credit or barring individuals or firms from trading" (IETA letter to Sens. Feinstein and Snowe, 4 March 2008, http://www.ieta.org/ieta/www/pages/getfile.php?docID=2938).
[68] David M. Driesen, "Markets are Not Magic", *The Environmental Forum*, November/December 2003, pp. 18–27, p. 22.
[69] S. Nicholls, "Interview with Hans-Juergen Stehr," *Environmental Finance*, December 2007, p. S42.
[70] Marcel Braun, "The Evolution of Emissions Trading in the European Union – the Role of Policy Networks, Knowledge and Policy Entrepreneurs," *Accounting, Organizations and Society*, Vol. 34, Nos. 3-4 (2009).
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[73] Young, "UN Suspends Top CDM Project Verifier."
[74] Gronewold, "Secretive UN Board."
[75] The argument of this article that corruption is inherent in the carbon offset market and is only furthered by regulatory efforts also applies to the second component of carbon markets, cap and trade. For example, the climatic efficacy and "climatic equivalence" of emissions cuts undertaken at different places, times, and using different technologies cannot be verified under cap and trade any more than can the climatic efficacy of offsets, making it impossible to distinguish between abuse and non-abuse. Similarly, bribery is a structural feature of all existing cap and trade systems in the form of the "grandfathering" of allowances, regardless of the legal or illegal conduct of individual allowance grantees. However, such topics lie beyond the scope of this chapter. Some of them are taken up in, for example, Larry Lohmann, "Regulatory Challenges for Financial and Carbon Markets", *Carbon & Climate Law Review* Vol. 3, No. 2 (2009), pp. 161-71; *Carbon Trading: A Critical Conversation on Climate, Privatization and Power*, Dag Hammarskjold Foundation, Uppsala (2006); "When Markets are Poison: Learning about Climate Policy from the Financial Crisis," Corner House Briefing Paper No. 40, September 2009, www.thecornerhouse.org.uk/subject/climate; and "Uncertainty Markets and Carbon Markets," forthcoming in *New Political Economy*. Many thanks to Trusha Reddy, Joe Zacune and Andre Standing for helpful comments on and criticisms of a draft of this chapter.