world bank: climate profiteer

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Unless otherwise noted, all projects described in this report are World Bank Carbon Finance projects for which Emissions Reduction Purchase Agreements (ERPAs) have been signed. Projects for which carbon finance documents have been approved, but ERPAs have not been signed have not been included in the following portfolio analysis.

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Executive Summary

After years of waning global influence, the World Bank has attached itself to the climate crisis like a patient on life support. Facing a crisis of legitimacy over its failed economic policy prescriptions and long track record of boondoggle projects, the aging institution is attempting to give itself a makeover. No longer is it just the Bank whose "dream is a world free of poverty." Now it is the Bank that can solve the climate crisis. The facelift includes a $2 billion portfolio of trust funds that channel carbon finance – money used to buy cuts in greenhouse gas emissions from projects in developing countries – from polluting industrialized countries in the global North to some of the most ecologically destructive industries in the global South.

The World Bank calls itself an "honest broker" of contracts that commit more than $1.5 billion of the $2 billion in its coffers to carbon offset deals. But how honest – and effective – is it in dealing with the climate crisis? With little transparency around its carbon credits, and no formal accounting for the "carbon debits" that are accruing thanks to World Bank loans, it's hard to say. The global fossil fuel financier and emissions trader has little to show in the way of reduced emissions, sustainable development, or benefits for the poorest communities of the developing world. However, that hasn't stopped the Bank from announcing plans for three new climate-related funds and taking a leadership role in telling the world how to develop an "investment framework" to tackle climate change.[1]

This report exposes the World Bank for what it is – and names it as such – a "climate change profiteer." The World Bank irresponsibly and recklessly continues to perpetuate the world's dependence on climate-altering fossil fuels while profiting from carbon trading, which is a dubious remedy to climate change. Among our report's key findings:

Key Findings

1) Lack of transparency: There is little transparency in the World Bank's carbon finance activities, making it all but impossible to verify that projects are cutting emissions above and beyond what would have been achieved in their absence, or to assess impacts on local communities. A third of World Bank carbon finance lies totally beyond public scrutiny.

2) Progress on emissions cuts appears low: The bottom line in all of these carbon trading deals is that there's no evidence that they actually reduce emissions that cause climate change. While the exact impact of World Bank carbon finance on greenhouse gas emissions is not known, data on the CDM website confirms the World Bank's own 2006 assessment that progress on lowering emissions has been slow.[2] Of the 83 active World Bank projects found in the online project database, only nine have delivered Certified Emissions Reductions, for a total volume of 18,770,707 tons of carbon dioxide equivalents.[3] The vast majority of these came from a single industrial chemical project in China.

3) Clean energy short-changed: To date, less than 10% of all of the funds flowing through the World Bank's carbon trust funds are going to support

clean, renewable energy, defined here as wind, geothermal, solar, and hydro electricity power plants with a generating capacity of 10 megawatts or less.

4) Dirty industries dominate: The limited data available show that the bulk of the World Bank's carbon finance portfolio (75% to 85%) has been directed to carbon trades involving the coal, chemical, iron and steel industries, effectively subsidizing these polluting, energy-intensive industries. And the pressure to deliver emissions reductions at low transaction costs has led fund participants to relax the size constraint for projects in priority countries.

5) Little benefit to the poor: The Bank's carbon finance portfolio places "poverty alleviation" at the bottom of its list of priorities. Two of the Bank's carbon funds – the Community Development Carbon Fund (CDCF) and the Biocarbon Fund – aim to deliver sustainable development benefits to the poor. However, put together, the CDCF and BioCarbon Fund have a total capital of $219 million, only 10% of the $2 billion in the Bank's carbon finance trust fund coffers.

6) Conflict of interests: The World Bank is playing both sides of the climate crisis. Between 2005 and 2007 alone, the World Bank Group loaned more than $1.5 billion for greenhouse gas-emitting projects in oil, gas and coal.[4] At the same time, the Bank charged an average 13% "overhead"on projects to cut greenhouse gas emissions – an estimated $260 million to clean up a mess the Bank is still making.[5] The Bank's role in carbon trades with companies that manufacture ozone-depleting HCFCs is doubly troublesome because it is one of four key players in the Multilateral Fund for the Implementation of the Montreal Protocol, which provides finance to close HCFC plants.

7) Perverse incentives: The Bank's carbon financing is not only channeling money from the dirtiest companies in the North to some of the most environmentally destructive industries in the South, it is also creating financial incentives for these industries to proliferate. For example, carbon deals involving the capture of waste heat associated with sponge iron production in India is proving so profitable that sponge iron factories – some of the most polluting industries around – are buying up land at cut rates and expanding their operations in order to profit from the carbon market.

8) Missing the forests for the carbon: Trading forest carbon credits has become a burgeoning business for the World Bank. Three-quarters of the projects in the BioCarbon Fund, the Bank's signature forest carbon program, generate carbon credits for the self-regulated voluntary market. The BioCarbon Fund's experiments with "avoided deforestation" are the basis for a new $300 million Forest Carbon Partnership, which, in turn, will link to a proposed Forest Investment Fund with investment capital targeted at $1 billion. Early evidence shows that local communities and indigenous peoples are the last ones consulted in the process of developing these funds, despite being critical agents responsible for preserving standing forests. In its race to turn standing forests into a commodity, the Bank has failed to answer one crucial question: In a changing world, one made warmer by the Bank's own fossil

fuel investments, will these forests survive or succumb to forest fire or disease?

9) Low risks for the World Bank, high risks for developing countries: The World Bank Group is experimenting in the carbon market, without taking significant risks, knowing that projects with little added value can be readily dumped into the voluntary carbon market, a market that is entirely self-regulated. Those who take the highest risks if projects fail are the poorest in developing countries, while the Bank's bottom line continues to grow.

10) Climate Investment Funds – new tricks, same old dog: The World Bank's latest scheme for grabbing the reins of the carbon market is the development of three new Climate Investment Funds. According to a leaked Bank document from January 2008 the funds are intended to "finance transformation."[6] In the consultation paper, the Bank outlines plans for a Clean Technology Fund ($5-10 billion), a Strategic Climate Fund including a Pilot Program for Climate Resilience ($1 billion), and a Forestry Investment Fund ($1 billion). This usurpation of authority on these funds flies in the face of an explicit agreement reached at the UN climate negotiation in Bali, Indonesia, in December 2007, where developing country delegates won a hard-fought battle to have oversight on the funds intended for them. The new Climate Investment Funds wrest power back out of the hands of those most affected by climate change and institute a donor-driven governance structure that leaves developing countries without a voice.[7]

Introduction

Climate change presents humanity with a historic challenge – determining how to ensure a high quality of life for each person in the relative short term, while protecting the long-term survival of whole societies, cultures and ecosystems. Today the very real impacts of shifts in global weather patterns are being felt, bringing wetter rainy seasons to some regions, and to others, longer periods of drought. Vast mountain glaciers that have sustained drinking water since time immemorial are shrinking, and melting polar ice is altering Arctic ecology. Bangladesh could see more than 20 million people flee the country as climate refugees if scientists' predictions for sea level rise become a reality.[8]

The challenge of climate change goes beyond adapting to shifting weather patterns and rising sea level. At the core of this issue are questions of resource allocation and energy consumption. Cheap energy – in the form of oil, coal and gas – has been the engine of rapid industrialization and economic growth for developed countries in the global North. As a result of 200 years of fossil-fueled development, industrialized countries have emitted the vast majority of climate altering greenhouse gases. While the exploitation of fossil fuels has occurred in every country, and emissions have been dispersed globally, the benefits – in the form of economic development – have largely accrued in the North.

Meanwhile, the world's poorest people, who have contributed the least to greenhouse gas emissions, are already experiencing the worst impacts of global climate shifts. With the least access to financial resources to cope with changes in water availability, agricultural productivity, and a rise in vector-borne diseases, these communities will have increasing difficulty adapting as the pace of climate change steadily grows.

Climate change is in many ways a challenge of redirecting resources: The decades of resource transfers - both financial and natural - from South to North must stop, and the North repay its carbon debt to the South while directing financial resources in support of clean energy and climate change adaptation globally. The very first step in this challenge must be for the North to help the South move away from a development path that channels financial resources into fossil fuel-powered industries, transportation, and electricity generation- or business as usual – particularly where the Northern interests are the primary beneficiaries of this development – and for the South to refuse to collaborate in this process. The World Bank can lead public lenders and borrowers to play a critical role in this transition, making clean, renewable technologies that already exist – such as solar, wind, geothermal, small hydro – the path of least resistance. But, instead, the World Bank is leading public and private lenders down a very different and dangerous path, a path of climate profiteering.

Timeline: The World Bank's Path to Climate Profiteering

1992

June: In light of increasing evidence that human activity is impacting global climate systems, countries participating in the United Nations Conference on Environment and Development in Brazil open the UN Framework Convention on Climate Change for signature. The aim is to stabilize greenhouse gases (GHG) before their concentrations become "dangerous" (UNFCCC, Article 2).

At the Earth Summit, the Global Environmental Facility, with the World Bank as its trustee, is designated as the Financial Mechanism of the UNFCCC.

1994

March: UN Framework Convention on Climate Change comes into force.

1997

December: More than 170 nations sign the Kyoto Protocol mandating a 5.2% average decrease in greenhouse gas emissions from 1990 levels by 2012 in industrialized countries. The U.S. pledges to sign the treaty on the condition that a North-South market-based emissions trading scheme, the Clean Development Mechanism (CDM), is adopted. Amidst reservations from developing and European countries, the CDM is approved. The U.S. rejects the treaty anyway, as does Australia.

A leaked document exposes the World Bank's plan to charge a 5% commission on CDM carbon transactions in a self-appointed role as a broker between Northern and Southern governments and industries. With a carbon market that could reach $2 billion by 2005, the World Bank notes in the leaked memo, it could earn $100 million in one year.

1999

July: The World Bank launches the Prototype Carbon Fund (PCF) as a "learning facility" to work out the kinks in the CDM before it takes effect under the Kyoto Protocol. The Bank's involvement in the carbon market through the PCF is pitched as a short-term catalyst to jump start private investment in clean energy technology and sustainable development.

Then-PCF Director Ken Newcombe assures NGOs that the Fund would be "entirely renewable" – solar, wind, micro-hydro, and geothermal power projects. The promise is yet to be fulfilled.

2002

March: The World Bank introduces the concept of the BioCarbon Fund to the Katoomba Group in London, claiming forest carbon offsets can finance rural development, help to reduce poverty and conserve biodiversity. The Katoomba Group, which boasts Citigroup, Coca-Cola, Newmont Mining, and The Nature Conservancy among its members, promotes markets for "ecosystem services."

May: The World Bank's first country-specific carbon trust fund, the Netherlands CDM Facility, becomes operational.

2003

March: The World Bank's Community Development Carbon Fund (CDCF) becomes operational, "open[ing] new possibilities for environmentally responsible development" according to Ian Johnson, then-Bank Vice President for Sustainable Development. The CDCF accounts for only 6% of the Bank's carbon finance portfolio; of this 6%, one-half – or roughly 3% – has gone to countries designated as "least developed" by the UN. The rest has gone to other borrowing countries such as Argentina and China.

The World Bank continues to finance climate-changing fossil fuel and conventional energy projects in the range of $1.5 to $3 billion a year.

2004

March: The World Bank opens the $155 million Italian Carbon Fund.

April: The Extractive Industries Review (EIR), an exhaustive World Bank-commissioned study, calls for the Bank to cease investing in coal and phase out of oil by 2008. The World Bank's board of directors makes minor modifications in its extractive industries lending, but otherwise rejects the EIR recommendations.

June: The World Bank launches the BioCarbon Fund to demonstrate how forests can generate carbon credits. Project activities include agroforestry, non-native tree plantations, and experimenting with "avoided deforestation" credits that monetize the capacity of standing forests as "carbon sinks."

2005

February: The Kyoto Protocol comes into force. The CDM takes effect, creating the market for Certified Emissions Reductions.

March: The $327 million Spanish Carbon Fund is made operational

July: The Group of 8 major industrialized economies (G-8) meets in Gleneagles, Scotland, and directs the World Bank to create an investment plan for a global shift to low-carbon energy development.

September: The World Bank launches the Clean Energy Investment Framework, which sets no targets for emission reductions, promotes business-as-usual fossil fuel extraction, coal-fired power (with as yet unproven "carbon capture and storage" technology), large hydropower dams, nuclear power and carbon offsetting schemes. It devotes negligible attention to the potential for renewable energy and neglects to calculate the climate footprint of the Bank's own fossil fuel investments.

2006

August: The World Bank establishes the Umbrella Carbon Facility, bringing on-line the Jiangsu Meilan Chemical Group/ Changshu 3F Zhonghao New Chemical Materials Co., Ltd. HFC-23 destruction project in China. Critics claim that financing the destruction of HFC-23, a by-product of manufacturing ozone-destroying HCFCs, is a misuse of carbon funds. Now valued at $930 million, this one project is the single largest in the Bank's portfolio.

2007

March: The Carbon Fund for Europe, initiated by the governments of Belgium, Ireland, Luxembourg and Portugal with assistance from the European Investment Bank, becomes operational; Tranche 2 of the BioCarbon Fund opens, focusing on experimenting with soil carbon sequestration.

December: 15,000 government, NGO and civil society representatives gather in Bali, Indonesia, to discuss a global plan for reducing GHG emissions after the first commitment period of the Kyoto Protocol expires in 2012; included in the Bali Roadmap are an Adaptation Fund, Technology Transfer Fund, and ideas for Reducing Emissions from Deforestation (and Degradation) in Developing Countries (REDD).

The World Bank unveils its new Forest Carbon Partnership Facility (FCPF) to create a new market in "avoided deforestation" amidst protests by Indigenous Peoples, peasant, environmental justice, and debt cancellation activists over the lack of consultation with affected communities, potential windfall profits for industrial logging companies, and little evidence of benefits to the poor or the climate.

The World Bank succeeds in getting UNFCCC approval to pilot REDD.

2008

January: A leaked document reveals Bank plans to open a "Clean Investment Fund" outside the UNFCCC process, establishing a $5-10 billion Clean Technology Fund; $1 billion Forest Investment Fund, and $1 billion Adaptation Pilot Fund, all of which would be housed and administered by the World Bank. Preliminary designs indicate that decisions about how to spend the funds would be made by donor-only committees, giving no voice to those countries most affected by climate change.

Ken Newcombe, formerly with the World Bank's PCF, now with Goldman Sachs, tells attendees of the Carbon Policy Forum in New York that he is "not at all convinced from what we've seen internationally that a cap and trade regime and a price on carbon is going to motivate investment in truly transformational technologies."

The World Bank's Role in Carbon Finance

The World Bank recognized early on that climate change would have the biggest impact on the poorest countries – its clientele – and would therefore constitute a growing focus of its work.[12] A leaked document revealed that by 1997 the Bank was already considering how it could use its unique position to get a slice of the expanding carbon trading pie.[13]

The World Bank's involvement in carbon finance began in earnest in 1999, long before the Kyoto Protocol[14] was to take effect, with the launch the Prototype Carbon Fund (PCF). The aim of the PCF was to "pioneer" carbon transactions- working out the kinks in the Clean Development Mechanism (CDM; see box) before it became operational.[15] Staff cited the World Bank's in-house expertise in managing environment and energy projects, and "access to" developing countries by field staff and technical support teams as the kind of "added value" needed to ensure that the first projects would be of high caliber.[16]

The Bank's place at the helm of the newly-christened PCF followed by its pre-emptive positioning in carbon finance globally made the World Bank the *de facto* rule-setter of the global carbon marketplace. The PCF, which was originally pitched as a catalyst to jump start private investment in "entirely renewable" energy, has become the vehicle through which the World Bank experimented with and established carbon offset technologies, many of them resulting in negative human health or environmental consequences.

Trustee, Administrator, Advisor: The Role of the Bank in the Carbon Trust Funds

Nine years and $2 billion after the launch of the PCF, the World Bank's carbon portfolio has expanded to 11 funds and carbon financing has become a "mainstream" part of its overall lending program.[17] The Bank acts as financial trustee, collecting contributions from governments that have committed to lowering their greenhouse gas emissions under the Kyoto Protocol but can't or won't do so domestically, together with private companies and industrial associations from those countries. It pools these financial commitments for emissions reductions – which now have a monetary value – into one or more trust funds.

Meanwhile, the Bank works with project sponsors in developing countries on emissions offset project proposals. Project sponsors include private industry,[18] but also carbon trading companies that bundle smaller projects. For each proposal, Bank technical advisors help create baseline and future emissions scenarios, craft the project's design to generate the maximum possible number of credits, and calculate the volume of reduced emissions that the proposed project could be expected to deliver over the contract lifetime.

Based on these assessments, advisors arrive at a per-ton price of expected emissions credits that is "fair, transparent and market-based" and adjusted to each proposal's transaction risk.[19] In every carbon finance deal, both the sellers and the buyers of emissions reductions take risks. There is the risk that project methodologies will be rejected, causing a project sponsor to adopt new

methods that generate fewer emissions. There is the risk that a project may be delayed by requests for review, thus shortening the time it has to generate the promised number of reductions. There is risk that a project will be rejected straight out from CDM registration by the Executive Board. And there is ultimately the risk that even after a project has been registered, it may still fail to produce any carbon cuts. The Bank generally negotiates a price for carbon credits to a level below the expected future sales price. In exchange for lower prices, donors absorb the risk that projects might not qualify for CDM registration or may fail to generate the full amount of credits at the end of the commitment period.

The Bank then contracts private "validators" registered with the CDM Executive Board to confirm that the project activities are, in fact, going to create emissions reductions over and above what would have been created without the Bank's funding. About 25% of the active projects in the carbon finance trust funds for which purchase agreements have been signed are "at validation" according to the UNEP Risoe Center CDM database.[20]

Once a project has been validated, it is submitted to the CDM Executive Board for registration. The board certifies, among other things, that the methods spelled out in the project proposal meet additionality, social

How clean is the Clean Development Mechanism?

The Clean Development Mechanism (CDM) is a market mechanism developed under the Kyoto Protocol that allows industrialized countries to buy carbon credits in developing countries. The Brazilian delegation to the Kyoto climate negotiations in 1997 originally proposed a "Clean Development Fund," which would collect fines from countries that failed to meet their reduction commitments and disburse them to low-income countries for clean energy projects. The United States refused to join the Kyoto Protocol unless the fund idea proposed by the Brazilians and endorsed by others was replaced with a "flexible mechanism" – which eventually evolved into carbon trading. Early evidence from carbon trades has revealed enormous profits for polluters, and little in the way of emissions reductions. Thus, what started as a "polluter pays" proposal was turned into a "polluter profits" scheme.

Like all carbon trading systems, the CDM is predicated on the notion that it doesn't matter where the carbon is emitted. What matters is overall emissions reductions. And if business can be convinced to reduce emissions as cheaply as possible, they will get on board, and everyone wins.

Nice theory. But how does it work in reality?

The CDM works hand-in-glove with other carbon emissions trading schemes. A country agrees to a cap on its emissions, at which point the government can distribute "allowances" or "pollution permits" to companies that allow them to pollute up to a certain level. The cap is theoretically ratcheted down in successive phases, so that industries can phase-in the changes necessary to correspondingly lower their emissions.

If companies can't – or don't want to – pay for lowering their emissions, they can either try to trade domestically or, if all domestic pollution permits are taken, they can trade internationally. The CDM offers

benefit and environmental criteria. As the trustee, the Bank serves as the advocate for projects undergoing registration review.[21]

If the CDM Board approves of the proposed methodologies for generating emissions reductions, the Bank is able to draw up a contract for Certified Emissions Reductions (CERs) with project developers. These "CERs" can be used by Northern governments and corporate trust fund participants to meet their Kyoto emissions cuts commitments. If the Executive Board does not approve of the methodologies proposed, or the proposed activities fall outside the purview of the CDM (as is the case with some forest-related projects), the project developer can still contract the sale of Verified Emissions Reductions (VERs).[22] VERs, unlike CERs, cannot be used to meet emissions targets in the North. However, VERs do have a value: they can be sold on the self-regulated "voluntary" carbon market and can be traded on the open market like any other commodity.

According to Bank staff, after approval (or rejection) by the CDM Board, the Carbon Finance Unit and the project sponsor sign a contract (Emissions Reduction Purchase Agreement, or ERPA) that stipulates the volume and price of emissions reductions, identifies parties' rights and responsibilities, and outlines how risks will be managed by the parties.[23] Each contract is negotiated

governments and companies in the global North a chance to meet their reduction commitments by buying credits from emissions cuts made in Southern countries. Industry finds this attractive because it costs much less to reduce emissions in the global South than the North.

However, what gets lost in the translation is this: The Southern countries have no limits on their emissions. If trades can take place between an "un-capped" country and a "capped" country, the "cap" on Northern countries becomes meaningless. Thus, the CDM constitutes a large loop-hole that is growing larger as domestic emissions cuts become more difficult – or expensive – to achieve.

The Clean Development Mechanism is supposed to support, well, clean development. Yet emissions reductions from projects that seem to hold little benefit to local communities and are potentially ecologically devastating – eucalyptus plantations for industrial charcoal, large hydropower projects that resettle whole villages, flaring methane from landfills – qualify for sale under the CDM. A report commissioned by the World Wildlife Fund found that many CDM projects completely fail to promote sustainable development.[9]

The same study found that 20% of the projects paid for through the CDM, and the emissions reductions they generated, would have happened anyway, without the additional financing. Axel Michaelowa, one of the CDM board's expert advisors, found that a third of the 52 Indian projects registered before May 2006 failed the "additionality" test.[10] Mark Trexler, president of Trexler Climate + Energy Services, Inc. and an offset expert, notes that it is impossible to definitively determine if a project is "additional" or not.[11]

While the World Bank sees the CDM as a way to get the cheapest emissions reductions bang for its buck, others see it as a back door through which the dirtiest industries in the North can "outsource" their emissions reductions committments.

separately, but all contracts are subject to a set of general conditions.[24]

The World Bank then contracts independent "verifiers" licensed through the UN to determine whether the project activities actually reduced emissions, and by how much.[25]

Upon delivery of emissions reductions credits to the Bank, the contracted amount of credits are distributed back to fund participants on a *pro rata* basis.[26] Emissions reductions generated above and beyond the contracted amount can be purchased by the Bank, or by a third party, as designated on a case-by-case basis in the purchase agreement.[27] Payment is then made to project sponsors, or to private banks that loaned start-up money to sponsors. This cash-on-delivery system acts as quality control, the Bank claims, ensuring that greenhouse gases are, in fact, being reduced specifically by activities within the carbon contract.[28]

Tata's Mundra Coal Project

Consider a project the International Finance Corporation (IFC) approved in April 2008. The IFC, the World Bank's private sector lending arm, planned to back a massive coal-fired power plant in Mundra, a town in the Indian state of Gujarat. The complex of five 800-megawatt plants will cost $4.14 billion to build and be owned and operated by Tata Power Company Limited, a scion of India's largest multinational corporation, the Tata Group.

To put this in perspective, Tata Motors, a division of the same conglomerate, recently announced plans to buy the luxury car companies, Jaguar and Range Rover from U.S. automaker Ford for $2.3 billion. And Tata Power's 2007 revenues totaled $1.6 billion. So, it's hard not to ask how much help Tata needs from the World Bank, which has as its motto: "our dream is a world free of poverty." Several other corporations are involved. Toshiba, for example, will supply the steam turbine generators.

Once operational, the Mundra power plant will be India's third-largest emitter of greenhouse gases. But it doesn't stop there. Now, the World Bank has planned for the Tata coal burner to be eligible for carbon credits under Kyoto's Clean Development Mechanism. Carbon credits for a coal burner, you ask?

In the bizarre logic of the carbon market, a market the World Bank is both shaping and investing in, yes, even one of the world's wealthiest corporations such as Tata can get emissions credits for its coal burner, as long as these emissions are captured in a "poor" country, like India, regardless of how rich the company involved may be.

Indonesian Coal

And it gets stranger still. One would hazard a guess that the IFC is lending $450 million, "considering investing up to $50 million in equity as part of its exposure to the project," and possibly helping Tata obtain

A "Tugboat" for the "Barge" of Private Finance

But is "quality" the end result of this elaborate system? Are emissions reductions taking place?

To answer these questions, it is important to look at the Bank's investments as one would a tugboat. The tugboat may be tiny, but its small size allows it to break the water, pulling in its wake a massive barge, which it can lead upstream with its pointed prow. So, too, the Bank acts as a "tugboat" for the massive amount of public and private finance that follows in the Bank's wake. When the Bank chooses to purchase emissions reductions from particular activities, it is making it more likely that private investors will follow. Indeed, according to two former staff, "[t]he primary focus of the World Bank's work in carbon finance in the period between 1997 and 2005 [was] to create demand by building confidence in the market."[29]

In addition, on a case-by-case basis as stipulated in the offset agreement, the World Bank can use up to 25% of the money in any given contract as a pre-payment on carbon deals other investors may find too risky.[30] The fungibility of these Bank funds means that they can

$300 million from other sources at favorable rates for the Tata burner because India has no other choice but to burn its own abundant supply of coal. But, no, the IFC plans to import coal from Indonesia to fuel the plant in India. In fact, Tata bought a 30% stake in two Indonesian coal-mining units for $1.3 billion in April 2007 in order to secure the coal resources for the Mundra plant.

On its website, the World Bank division offered this feeble justification for this transaction: "IFC is supporting thermal power projects which have better GHG (greenhouse gas) and environmental performance than the average plants in India, given the country's large needs for incremental electricity supply."

Surely, if the Bank is involved, the poor, if not in India, then somewhere else, are better off as a result of this project? Well, in a word, no. Indonesian coal regulations are largely incoherent and open to manipulation, giving often-corrupt local officials control over the resource wealth, stripping local communities of their resources, and leaving them with a legacy of environmental problems.

Indeed, Indonesia's coal sector is the rule, not the exception, in its posture toward the poor: A three-year review of the World Bank's investments in the extractive industries, the Extractive Industries Review, launched under former World Bank President James Wolfensohn, found that the poor were worse off as a result of investments in extractive industries, and recommended the World Bank get out of coal immediately. (That was back in 2004.)

The Extractive Industries Review, ironically, was developed with input from industry, government, and civil society participants, and overseen by former Indonesian environment minister under Suharto, Emil Salim, who himself sat on the board of a large coal company. Nevertheless, Salim was unequivocal that the World Bank should cease lending for coal, and phase out of oil by 2008. The World Bank's board voted to overrule these recommendations.

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create all of the right market conditions for a project to sail through as either "verified" or "certified" reductions regardless of the project's actual value in stabilizing the climate.

The Bank also plays a major role in structuring the regulated carbon market. The Bank is responsible for over one-fourth of the approved methodologies in the Clean Development Mechanism, and continues to open up carbon financing for new types of projects (the latest on the Bank's docket are so-called "clean coal" projects and urban infrastructure).[31]

Another of the Bank's fingers is in the pie with its Carbon Finance Assist program – a $10 million trust fund to build institutional capacity in developing countries so that the supply of CDM assets can be increased.[32]

Perhaps most significantly, the World Bank "tugs" additional finance in its direction by acting as a standard by which other investors – regional development banks, export credit agencies, and private banks – gauge their lending practices. The so-called Equator Principle banks, private banks that arrange over 90% of the developing world's project financing, look to the World Bank not just for guidance on what type of investments to make, but also for metrics on social safeguard standards, environmental best practices and due diligence for affected communities.[33]

What this means is that the World Bank is leading the carbon market where it wants to go and, with a pool of resources to play with and a willingness to shoulder risk – a risk ultimately borne by the taxpayers who have endowed the Bank as well as the poorest who shoulder the risk if the projects fail – it can take the carbon market in any direction.

10 Key Problems with World Bank Carbon Finance

1. Lack of Transparency

Transparency is important for a variety of reasons. The lack of transparency hinders the ability of local communities to make informed decisions about carbon finance projects. It also makes understanding the Bank's contribution to addressing climate change that much more difficult. An open flow of information is especially critical given that the World Bank presents itself as a "learning facility" dedicated to effective climate and sustainable development financing. If only those in on the deal are learning, how is this in the public interest?

Because the World Bank is a trailblazer in the realm of carbon finance, and its climate change activities set an example for the Equator Principle banks, regional development banks, and other banks, its leadership on transparency is not an academic issue: It has consequences for the entire planet. Carbon deals that open new streams of revenue for polluting companies or governments looking to turn an easy profit, but fail to reduce emissions, take us all further down the path of climate chaos.

Secrecy, Inc.

The World Bank's lack of transparency around its carbon funds has many facets. To begin with, the Carbon Finance Unit's senior public relations liaison admits that the Bank's online database, where publicly available project records are housed, is "unreliable," since a "lack of resources" prevents timely updates of project status and documentation.[34] (One wonders where the 13% overhead of $260 million is being spent.)

In addition to being "unreliable," the database is incomplete: The website does not divulge transaction costs, contract values, or all of the parties that are engaged in the various transactions.[35]

When pressed on the lack of transparency by the author, the Carbon Finance Unit's fund manager claimed that because money from the carbon funds is used for commercial transactions and so is separate from general development lending – it is not "fungible." In other words, the Bank's carbon finance operations are not considered publicly financed, and therefore are not subject to the same public disclosure requirements.[36] In addition to questions around whether the Bank – or the UNFCCC or the public – has the authority to determine what remains confidential and what does not in its carbon trading portfolio, this begs the question: What added value is the Bank, a publicly endowed institution, generating that a private bank could not?

So what, exactly, do we know that we don't know as a result of the Bank's secrecy on its carbon trading deals?

- **We don't know exactly what the Bank is paying for**

Without access to purchase contracts – including the specific slate of services and project components that will create the emissions credits that the Bank intends to pay for – the public cannot hold the Bank, fund participants, or implementing agencies accountable for the activities that are supposed to generate emissions reductions.

Forest Offsets in the Ecuadorian Sierra

When Forestacion del Ecuador S.A. (PROFAFOR), an organization backed by the Dutch foundation FACE, approached 39 indigenous communities in the Ecuadorian Sierra[40] in the 1990s with a carbon sequestration proposition, local residents expected to see thousands of much needed jobs flood their region. What they didn't expect was a lease on their labor and land that promises to keep them in a perpetual state of indentured servitude for at least the next three decades.

FACE's name reveals its mission: Forests Absorbing Carbon-dioxide Emissions. FACE was set up in 1990 by energy companies on the Dutch Electricity Generating Board to explore ways to offset greenhouse gas emissions in The Netherlands – in particular from new coal-fired power plants – through biological carbon sequestration. The group's first project was in The Netherlands, but FACE quickly learned that sequestration schemes are cheaper where labor and land is cheaper – in the global South.

The generally 15 to 30 year contracts (some contracts, in the form of mortgages, run as long as 99 years) establish PROFAFOR as the sole owner of the rights of absorbing carbon, while paying no rent on the community-owned lands where the "carbon intake and storage" is taking place. FACE dangled the prospect of hefty future incomes from forestry activities in the faces of these communities, but downplayed the fact that community members would be solely responsible for maintaining the plantations.[41]

According to local communities, FACE-PROFAFOR also forgot to mention that the costs of planting, training, monitoring and certifying forests with the Forest Stewardship Council would be deducted from payments – or that contracts with communities stipulated that no other parties can contribute to cover expenses from establishing the timber plantations.[42] Over the first three years of the project, PROFAFOR deducted nearly half of the revenue communities were expecting for "technical assistance." And in less than six years after signing the contract with PROFAFOR, communities were devoting their own productive activities to the organization's carbon forests.[43]

Eight years after launching the project, FACE-PROFAFOR obtained Forest Stewardship Council certification, allowing the company to greenwash its image while diminishing what little revenue the affected communities' would receive.

To add insult to injury, the World Rainforest Movement and Accion Ecologica have shown that FACE introduced pine plantations on primary forest, not degraded land as they claimed. The non-native trees were planted on fragile soils in hydrologically important ecosystems, damaging the soils, impacting the native fauna and flora, and yielding low growth rates of the plantation trees themselves – ultimately leading to less carbon sequestration than anticipated.[44]

While FACE-PROFAFOR is not a World Bank-supported project, it is an apt example of how local communities and the climate can be short-changed when carbon deals are opaque. Without transparency, there's no way to prevent companies from drawing up similar contracts with the Bank's seal of approval.

Yes, there are "validators" who conduct an evaluation to ensure that the project activities are going to create emissions reductions according to the project design,[37] but the very legitimacy of validators has been called into question by scientists like Lambert Schneider of the Oko Institute in Germany who asserts that "[t]here is no objective way to find out if a project would have happened without the CDM. 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."[38]

The public also has no way of knowing when funds are released, which is the only way the Bank maintains "quality control." All we see is the contracted volume of emissions, and, by looking at the CDM website, how many certified credits have been delivered. The Bank's Project Design Documents and Project Appraisal Documents are *ex ante* and not *post-hoc*. And the Project Appraisal Documents, which outline the Bank's assessment of the feasibility of, and the justification for, each project, are kept secret until the project has already been approved.[39]

- **Responsible parties unclear**

Without being able to review the emissions agreements, there is no clear way to know exactly who in developing countries is responsible for making sure carbon cuts materialize. Who signed the contract? Who signed the sub-contracts? Who received the revenue from the sale of credits? What liability, if any, do local communities hold if the project goes sour?

Yet it is these very questions that community watchdogs are now realizing are critical if they are to maintain any oversight on the projects – and avoid liability for their failure – at the local level (See Box – Forest Offsets).

COMMUNITY IMPACTS AND REDUCED EMISSIONS: THE CDM REGISTRY

The Carbon Finance Unit's database does link to a third store of project-related information – the Clean Development Mechanism database hosted by the UNFCCC. Here, the UN discloses each project's status in the CDM registration pipeline, when projects are scheduled to begin generating emissions reductions, and how many credits have been delivered to date, among other data.

As on the World Bank websites, the prices of carbon credits and transaction costs are not disclosed. The UNFCCC posts semi-annual monitoring reports, along with compilations of public comments and lists of stakeholders interviewed during the registration process. The monitoring reports are relatively limited in scope, focusing on the volume of carbon dioxide equivalencies produced, but they at least present a forum where the impacts of carbon finance on the livelihoods of the poor and on access to renewable energy can be verified. The Bank provides no such documentation.

While Bank staff claim that all projects "should be (potentially) eligible under the CDM,"[45] only a third of the Bank's carbon finance projects have been registered with the U.N., with publicly available monitoring reports. Another third are under deliberation for acceptance under the CDM. The remainder are not in the CDM database at all. This means one-third – and up to two-thirds – of carbon finance administered by the World Bank lies totally beyond public scrutiny.

Still, in a bit of circular logic, the Bank's Carbon Finance Unit asserts that project validation and monitoring documents are made public on the CDM website, and therefore disclosure in the Bank's database is not necessary. When the author of this report asked for access to monitoring reports for "active" projects that failed to meet the criteria for CDM registration

and were presumably generating carbon credits on the voluntary market, Bank staff replied that disclosure of documents that "reveal project shortfalls would hurt investor confidence and threaten the future of innovative carbon finance projects that help the poor."[46]

2. Do Carbon Deals Make a Difference?

Is the climate better or worse off as a result of all of this trading in CO2? Surprisingly, answering this question is not a priority. While the exact impact of World Bank carbon finance on greenhouse gas emissions is not known, data on the CDM website confirms the World Bank's own 2006 assessment that progress on lowering emissions has been slow.[47] Of the 83 active World Bank projects found in the online project database, only nine have delivered Certified Emissions Reductions (CERs), for a total volume of 18,770,707 tons of carbon dioxide equivalents (tCO2e).[48] The vast majority of these came from a single project in China (See Case Study #2).

The overall reductions delivered to date are about a tenth of the total volume of emissions under contract in the trust funds' portfolio, prompting concerns that projects facilitated with carbon finance will not be able to produce enough emissions reductions to keep up with the demand from Northern donors. In the face of growing credit shortages, and with time quickly running out before 2012 when Kyoto obligations must be met, trust fund participants, along with other private sector entities, transferred hundreds of thousands of dollars to an Umbrella Carbon Facility.[49] The pressure to generate CERs is on.

To help facilitate large volumes of emissions reductions, the World Bank established the Umbrella Carbon Facility (UCF) in 2006.[50] The Bank was promised a speedy CDM registration time, and, in exchange, UCF funds are only used to contract credits from projects that use methods already approved by the CDM Executive Board.[51] The UCF therefore became an investment insurance of sorts for smaller carbon funds: If smaller projects fail to meet their reduction promises, the Bank could shift CERs from the large store of credits in the Umbrella Carbon Facility.[52] The large stash of credits come from mega-projects like chemical gas plants in China, and, if the Bank moves forward with its current plans, coal-fired power plants and gas and oil sectors.[53]

Carbon Futures?

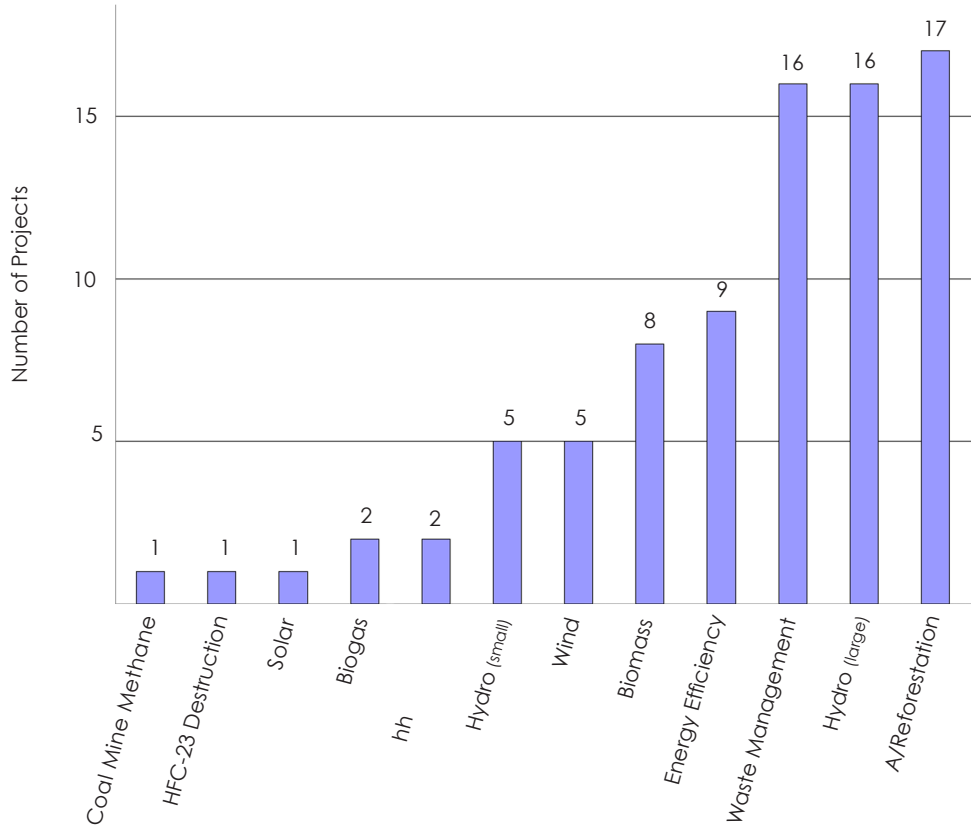
Another way the Bank has helped pump up the market in carbon credits is by pioneering carbon trading that expands past the horizon of the current Kyoto Protocol framework.[54] Sort of like futures trading, these transactions fall under the category of VERs (credits that are not registered with the UN's CDM), not CERs. Because these emissions reductions will take place after 2012, they cannot, by definition, be certified.[55] As it did in the years before the Kyoto Protocol came into effect, the Bank has placed clauses on the VER purchase agreements that allow VERs to be "upgraded" to CERs in the case that rulings under the UNFCCC favor the untested methods being piloted by the Bank.[56]

Perverse Incentives

A much more fundamental problem with the World Bank's self-appointed position as frontline carbon financier is that it fails to account for the carbon in its own lending portfolio. Despite years of pressure from the public, the Bank still does not calculate the greenhouse gas emissions generated from its overall lending portfolio.

This oversight has been mentioned by the CDM Executive Board. A case is unfolding in the building materials industry, where projects supported by carbon finance may be creating perverse incentives that make fossil fuel and environmentally polluting industries even more financially competitive. In the FaL-G Brick and Blocks Project in India, carbon consultant Eco-Carbon bundles emissions reductions generated by the production of self-hardening bricks at 200 small brick-making operations. The bricks are made from fly ash, a toxic waste product from thermal power plants; lime, a byproduct of the acetylene industry; and gypsum from fertilizer plants. Because these ingredients harden chemically without having to be fired in kilns, private entrepreneurs have reduced their use of coal, and lowered their emissions. In a 2006 CDM Executive Board review of the project, one member noted that "[t]he product produced in this project (FaL-G bricks) utilizes cement/lime and other industrial products that caused GHG emission (sic) during their productions process. These emissions should be included in the project emissions."[57] World Bank staff replied that the approved

World Bank Carbon Finance Project Distribution by Sector



The data used to generate Charts 1, 2, and 3 were compiled by the author from the World Bank's online project database, the Carbon Finance Unit's online project database (http://carbonfinance.org/Router.cfm?Page=Projport), the UNEP Risoe Center online CDM database (http://cdmpipeline.org/publications/CDMpipeline.xls), and World Bank project documents.

methodology did not include such a provision, and "[e]missions from inputs into the energy savings are therefore ignored in the P[roject] D[esign] D[ocument]."[58]

Thus, the Bank is turning waste products from coal-fired power and other energy-intensive industries into carbon credits – perhaps even from projects like the Tata Mundra coal-fired power plant project it is financing. This is a clear case of generating perverse incentives.

3. Clean Energy Short-Changed

Less than 10% of carbon offset money approved by the Bank by the end of 2007 was allocated to clean, renewable energy. Meanwhile, as explained in more detail in the next section, more than $1 billion has been allocated to dirty industries for "cheap" carbon credits that actually make renewables less competitive in the carbon market.

When the World Bank first launched the Prototype Carbon Fund in 1999, PCF Director Ken Newcombe said carbon finance would be "entirely renewable." But five years later, Newcombe admitted that nitrogen oxides and hydrofluorocarbons, not renewables, were the most attractive candidates for carbon financiers. "One would expect that CDM would support wind, solar, and small hydro," he reported. "But the CDM methodologies ... and an unlevel playing field for renewable energy ... make it very difficult."[59] With priorities set to deliver the greatest volume for the lowest price, the Bank has all but abandoned the road to renewables.

Of the World Bank's entire carbon finance portfolio, only 15 projects come from renewable energy sectors, defined here as wind, solar, geothermal and hydro elec-

Case Study #1: Minas Gerais Plantar Project, Brazil

Approved: 2002

ERPA contract: 1,514,286 tCO2e

Financing approved: $5.3 million

In 2002 Plantar, an iron foundry company with operations in Brazil, threatened to switch from burning charcoal to coal in order to increase capacity at its pig iron operations. This would have significantly increased their greenhouse emissions, so the World Bank rushed in with carbon financing to help Plantar expand the eucalyptus plantations that provide the company's charcoal.

The impact of the expanding eucalyptus farms has been devastating to the nearby village of Sao Jose do Buriti. Concerned residents were joined by Brazilian NGOs, churches, social movements and unions to halt World Bank finance of the project in 2002 and 2003.[71] Today residents have witnessed the water table dropping, the disappearance of biodiversity and medicinal plants, and the application of herbicides and pesticides to timber plantations that have killed local farmers' subsistence crops and poisoned streams. Perhaps more seriously, groups allege that Plantar pressured local residents to sign letters of support for the project or forfeit employment at the plantations.

The film "The Carbon Connection," documents this and other carbon trading schemes.[72]

tricity power plants with a generating capacity of 10 megawatts (MW) or less. Even more astonishing, the Bank is channeling less than 10% of the $1.2 billion[60] in actual financing allocated in carbon contracts to renewable energy projects. The volume of emissions cuts that are expected to result from these 15 renewable energy projects constitutes a mere 5% of the total volume of reductions that the Bank hopes to generate from its carbon finance portfolio.[61]

Large hydropower favored

Whereas small hydropower projects make up only 6% of the World Bank's carbon finance projects, large hydropower projects (greater than 10MW) make up about a fifth of the total number of active projects. The World Bank has approved $47 million to purchase credits from hydropower plants that can generate more than 10MW of electricity.[62]

The Carbon Finance Unit continues to bring new large-scale hydropower projects online. On its Frequently Asked Questions webpage, the CFU states it will report all hydro projects as "renewable" – regardless of size – because in their view "the relationship between size and impact are not always directly related."[63] However, the Bank has acknowledged that larger projects require greater land and water resources, which it noted could impact inter-basin resource sharing, vegetation, wildlife, wetlands, local microclimate and village resettlement.[64]

Questionable biomass projects

The Carbon Finance team has signed eight purchase agreements, and approved $13 million, for biomass projects. However, this sector may gain prominence as the Bank looks for ways to "modernize" biomass through carbon finance access, particularly for projects in Africa, where 80% of energy comes from biomass.[65] Biomass projects substitute organic material for coal, oil, or gas to create electricity, thus theoretically lowering greenhouse gas emissions. The source of this organic material, however, brings into question whether these projects should be considered clean or renewable – both from an ecological and a human health perspective.

BAGASSE

Two of the Bank's biomass projects will burn bagasse, the fibrous residue that remains after crushing sugar cane. Bagasse burning is problematic from a public health perspective. When stored, the fibers release a fine dust that can irritate workers' lungs. To combat dust, sugar cane is wetted down. But moist sugar-cane fibers have been shown to grow a spore that causes Bagassosis, a pulmonary disease that, left untreated, can lead to emphysema and bronchiolitis. To combat the growth of spores, the fibers are sprayed with a fungicide.[66]

WOOD PULP AND WOOD WASTE

Another category of biomass projects in the Bank's carbon portfolio involves wood pulp and wood waste. In one case, Tractebel Energia, which operates 11 power plants in Brazil,[67] will generate carbon credits from burning wood waste, thus reducing the methane that would have been released from decomposing biomass, and substituting biomass for fossil fuel inputs. While attractive when viewed in isolation, as with other projects involving waste from an industry that is a net emitter of CO2, these projects essentially provide a perverse incentive for the pulp and paper and timber industries to increase – not decrease – their operations and their waste. Yet industrial tree plantations – particularly fast-growing eucalyptus plantations – can have a devastating effect

on the local water table, biodiversity, and the microclimate. Pesticides and fertilizers applied to plantations can compromise ecosystem and human health.[68]

FUEL SWITCHING

Five of the eight biomass projects in the Bank's Carbon Finance portfolio will earn carbon credits by switching from coal to organic industrial waste. Indocement, a large Indonesian cement company, for example, will earn emissions reductions for substituting organic waste such as rice husks, coconut wastes and palm oil wastes for coal in its brick-making kilns. This project will also explore generating carbon credits by using old car tires and waste oils instead of coal, oil and gas. Research conducted by the U.S. Environmental Protection Agency shows that burning tires in cement kilns leads to greatly increased emissions of hazardous air pollutants, including dioxin, arsenic, lead, cadmium, chromium, chloromethane, xylene, styrene, and toluene. These toxic substances enter the body through inhalation and through the consumption of locally produced dairy products, meat, and other agricultural products.

Case Study #2: China HFC-23 Emissions Reduction and Sustainable Development Benefits Project

Approved: 2005

ERPA Contract Volume: 129,301,952 tCO2e

Financing Approved: $931 million

Through its Umbrella Carbon Fund, the Bank has entered into a $931 million carbon contract, its largest to date, with two private companies that manufacture the ozone-depleting refrigerant chemical HCFC. The derivative of HCFC production is the waste gas HFC-23, which is a greenhouse gas 11,700 times more powerful than carbon dioxide. The Jiangsu Meilan Chemical Group and Changshu 3F Zhonghao New Chemical Materials Co., Ltd. will destroy HFC-23 at their chemical plants, thus reducing their emissions by billions of tons, about 130 million of which the Bank has promised to purchase. As is the case in other "low hanging fruit" projects, revenue for HFC-23 destruction constitutes a boon for Chinese HCFC companies, but a bust for the atmosphere and clean energy.

Profits from the sale of HFC-23 decomposition credits pull down HCFC prices and send a signal to producers to make more HCFC as quickly as possible,[105] wreaking greater havoc on the ozone layer in the process. Under a new phase-out scheme of the Montreal Protocol on Substances That Deplete the Ozone Layer, the international accord to halt ozone depletion, HCFC production in developing countries is supposed to freeze at 2013 levels and begin reductions until 2030.[106] The more HCFC developing countries produce by 2013, the greater the load of ozone-destroying and greenhouse gases "locked in" until complete HCFC phase-out in 2030.[107]

Under the Montreal Protocol, HCFC plants are also eligible for funds to help close their facilities.[108] Projects that have profited from carbon credits, and may have expanded their operations because of this

These pollutants cause serious health problems, including reproductive impairment, developmental delay, and cancer. Children are especially vulnerable to these pollutants.[69]

The remaining projects are also credited with reducing greenhouse gas emissions by substituting biomass for fossil fuels, but the organic matter is not "recycled" from industrial processing. Instead, it comes from industrial-scale plantations, like Plantar's eucalyptus farms in Minas Gerais in Brazil (See Case Study #1).

Meanwhile, project developers show little evidence of community benefits beyond tokenistic projects. (In the case of the Kakira Sugar Works, Ltd., local Ugandans have been promised a mobile health clinic – but this should be seen as a social safeguard, not "sustainable development," since regular physical examinations are key to preventing Bagassosis.[70]) For these reasons, this report does not include biomass as a source of renewable energy.

If large hydro and biomass were added to the categories of small hydro, geothermal, solar and wind power,

revenue, may also be eligible for receiving these funds. It thus comes as no surprise that the World Bank is one of the four key players in the Multilateral Fund for the Implementation of the Montreal Protocol.[109] In one of the many conflicts of interests endemic in its role in carbon trading, one arm of the Bank is profiting from potentially creating incentives to produce HCFCs, while another arm is paying to shut HCFC production down.

A further concern in this case is that revenue generated from the sale of emissions reductions will result in fresh capital and perverse incentives to expand production of HCFC in order to destroy more HFC-23 and reap reductions payments.[110] The price of carbon credits from these projects is actually higher than the income from producing the original HCFC (in 2005 the revenue from carbon credits generated by one ton of HCFC was between $1,500 and $3,200 compared to the price of HCFC itself, which demanded only $1,100 to 2,400). Thus, HCFC production costs could be outweighed by carbon credit sales.[111] These issues undermine the integrity of both the Montreal and the Kyoto Protocols.

In addition to environmental concerns,[112] one of the experts who reviewed the pilot projects by which the UN set the rules for including HFC-23 projects in the Clean Development Mechanism reportedly "expressed concerns about the inadequate contribution to sustainable development."[113]

In a meeting with the Carbon Finance Unit staff in 2007, a senior environmental specialist stated that streams of financial incentives for HFC-23 destruction under the Clean Development Mechanism had dried up.[114] It is true that the original decision of the CDM Executive Board strictly limited eligibility to projects from HCFC factories built before 2004, however, this is little comfort, as the subject of eligibility for new HCFC plants was raised by parties to the Kyoto Protocol in 2005,[115] and again at UN climate change meetings in Nairobi in November 2006.[116]

If the World Bank's position as broker of easy emissions reductions from HFC-23 destruction does result in demand for more production of HCFCs, it is in a clear position of conflict of interest, with both the global climate and the ozone layer at risk.

Case Study #3: Durban Landfill Gas Recovery Project, South Africa[120]

Approved: 2004

ERPA contract volume: 700,000 tCO2e

Finance Approved: $2.8 million

In the well-publicized case of the Bisasar Road landfill in Durban, South Africa, local residents, spearheaded by community activist Sajida Khan, demanded the closure of the apartheid-era site created in a "brown and black" neighborhood that "imported" waste generated in white communities. A research director for the Cancer Association of South Africa remarked in response to the high cancer rates in neighborhoods near the toxic landfill that "residents are like animals involved in a biological experiment." In 1987, the city promised to close the dump, but broke its promise. Seven years later, the African National Congress made campaign pledges to close down the site – a promise it also broke.

Behind government resistance to closing Bisasar Road was a $10 million World Bank contract through the Prototype Carbon Fund to capture methane leaking from the dump, convert some to electricity, and burn off the rest. The revenues raised from the methane emissions reduced and the electricity sold to the power grid constituted a new lease on life for the dump.

After Khan filed an Environmental Impact Assessment challenging the project, the Bank backed off – releasing the rights to methane capture for open tender. But Khan continued the struggle to "protect the community and close the site down and compensate people for their losses."[121] The Bank did release an additional $760,000 through the Prototype Carbon Fund directly to the municipality's Carbon Credit Community Fund,[122] but according to the Bank, the money was not meant as "compensation" for those affected by the landfill, but that they "derive some benefit, and have the advantage of proactive outreach, from the project." There's no evidence how this money has since been spent

Sajida Khan eventually lost her own recurring battle with cancer in 2007. While no longer financed by the World Bank PCF, the landfill remains active.

renewables would make up 46% of the number of projects in the Bank's carbon finance portfolio. Using this broader definition, these "renewable" forms of energy would still have received only $113 million (10%) of the $1.2 billion in carbon offset funds approved by the Bank through 2007. In comparison, renewable energy projects, which include all hydro and biomass, account for 63% of the number of projects registered in the UNFCCC's CDM database.[73]

4. Dirty Industries Dominate

The limited data available show that the World Bank is committed to pouring $1 billion of donors' carbon offset money into industrial chemical, coal mine, landfill gas, and iron and steel factory projects, effectively subsidizing these polluting, energy-intensive industries.

These projects are popular with donors and the Bank because they generate large, cheap and quick reductions in greenhouse gas emissions with relatively low financial risk. For example, the greenhouse potential in a ton of methane is equivalent to that of 21 tons of carbon dioxide (CO2). For the price of reducing one ton of methane the Bank can pass 21 credits to fund participants. Similarly, HFC-23, released when producing refrigerants, is 11,700 times as potent as CO2. So for the cost of cleaning up one ton of HFC-23, the manufacturer can generate 11,700 carbon credits. Buyers get fire-sale prices, and the large volume makes the deal more profitable for sellers (See Case Study #2).

These "low-hanging fruit" do have the potential to lower greenhouse gas concentrations quickly, but they also have a dangerous side effect. Because their credits are so cheap, they exert downward pressure on the price of carbon for the entire market.[74] Small, renewable projects, like wind farms and small hydropower plants, have to compete with low prices. The result is that these projects become less economically attractive. [75] For a sector that already carries higher investment risks and lower returns, this additional disadvantage puts renewable energy out of reach for most.

Lose-Lose for the Poor; Win-Win for the Rich

Easy credits constitute a "win-win-win" for the World Bank, donors, and project sponsors. But they are a "lose-lose" proposition for the climate and local communities. The Jincheng Coal Bed Methane Project in China's Shanxi Province, the second-largest project in the trust fund portfolio by emissions reduction volume, is a stark example of how carbon finance is cheating the climate and doing little to create better livelihoods for China's poor. The Jincheng Anthracite Coal Group Co., Ltd. proposes to reduce emissions by capturing methane released during coal extraction at the Sihe mine. The company plans to combust methane to create less potent carbon dioxide while generating electricity for mining operations. Power generation on-site from methane gases generates carbon credits, in the bizarre logic of the carbon market, by reducing Jincheng's demand for electricity from the grid. And because the Bank sets no guidelines on how funds from the sale of emissions reductions should be used,[76] income from credits can be invested in expanding mining operations and releasing more greenhouse gases – and other health-impairing pollutants like mercury and sulfur dioxides – into the atmosphere.

Community watchdogs are concerned that this carbon finance project, and others like the Fal-G Brick and Blocks project mentioned above, create new revenue streams for industries that allow them to not only externalize the cost of their pollution, but get paid for it.

While coal fired-power plants are given new sources of income, their fly ash is exposing workers who handle the material to heavy metals, radioactive elements,[77] poly-aromatic hydrocarbon, and other contaminants.[78] In India, brick kiln owners in the All-India Brick and Tiles Manufacturer's Association demanded that the government withdraw its mandate that bricks to be made of 25% fly ash, insisting that the material weakened bricks and was hazardous to workers' health.[79]

In another CDCF project, the Gypcrete/Rapidwall Building Material Project in India, Gypcrete Building India Pvt., Ltd. has completed carbon finance documents and has a pending contract with the Bank to reduce 200,000 tons of CO2 equivalent by substituting more energy intensive clay bricks and cement with "gypcrete" wall panels.[80] However, the gypcrete – a brand name for the building material made from phospho-gypsum – triggered the World Bank's safeguard policies in 2006, because of occupational health and environmental safety concerns.[81]

Phospho-gypsum, a fertilizer industry waste product, is so abundant that Indian fertilizer companies are searching for ways to get rid of the 16 million tons that are already lying unused. (The country's twelve major fertilizer companies are expected to add as much as 4.5 million tons to these piles every year). [82] Like fly-ash from burning coal, phospho-gypsum is a liability to these companies, as it pollutes the land and water, takes up valuable real estate and is difficult to dispose of. [83] As with fly-ash turned into bricks, carbon finance will create an asset for this polluting industry where there once had been a liability.

5. Little Benefit to the Poor

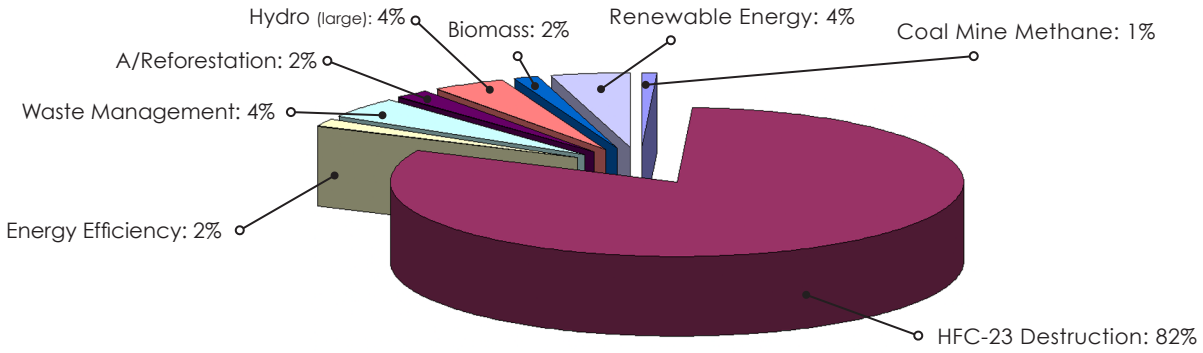
Bringing sustainable development benefits to the poorest communities is central to both the World Bank and the Carbon Finance Unit's missions. In 2005 the Executive Directors re-affirmed that the Bank should "ensure that carbon finance contributes substantially to sustainable development, beyond its contribution to global environmental efforts..."[84] The Community Development Carbon Fund (CDCF) was created for the express purpose of providing finance for small projects that cut carbon while bringing sustainable development benefits to local communities in the poorest countries. The goal of the CDCF is to promote activities that improve overall community conditions – through access to clean water, improved health conditions, job creation for women, etc. – as much as to invest in clean technologies and mitigate climate change.[85]

In Nepal, for example, the fund will buy emissions credits from 200,000 commercially distributed household biogas "plants" powered by animal and human waste. The electricity generated by biogas is expected to replace fuel wood, thus reducing the incidence of indoor air pollution-related illnesses. It's also expected to relieve women and children of the burden of having to travel long distances to gather fuel in forests, boosting the opportunities for both increased school enrollment and forest conservation. Building latrines to connect to biogas plants is anticipated to provide local jobs and better sanitation.[86]

The CDCF has been touted as a flagship program, demonstrating how the Bank's carbon offset portfolio can provide sustainable development to the poor while helping developed countries meet their Kyoto commitments. Providing sustainable development, ironically, was the original intent of the CDM, an intent that has been largely forgotten in the global carbon rush.

Precisely because the delivery of community benefits is what "distinguishes the [CDCF] from other funds" in the World Bank's carbon portfolio,[87] it is disconcerting

WORLD BANK CARBON FINANCE APPROVED FUNDING



The data used to generate this chart were compiled by the author from the World Bank's online project database (http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/0,,menuPK:115635~pagePK:64020917~piPK:64021009~theSitePK:40941,00.html), the Carbon Finance Unit's online project database (http://carbonfinance.org/Router.cfm?Page=Projport), the UNEP Risoe Center online CDM database (http://cdmpipeline.org/publications/CDMpipeline.xls), and World Bank project documents.

that evidence of those benefits is sorely lacking. Indeed, the CDCF Advisory Group registered concern "that project developers and other stakeholders are usually focused on other aspects of project implementation and lack experience – and sometimes appreciation – of the social aims of projects."[88] Due to donor-imposed deadlines for sealing the first round of CDCF purchases, the fund's advisors agreed that "it would not be possible to close the first tranche [of funding] within the required time frame if projects were to be limited to those that only deliver intrinsic community benefits."[89] Instead, community benefits will be provided by "adding on" additional activities that have nothing to do with the carbon offset. For example, the NGO Development Alternatives project "Technology and Action for Rural Advancement" (TARA) "added on" hand pumps, a day care and stoves to the VSBK Kiln Cluster Project in order to secure CDCF financing for fuel-efficient coal-fired clay brick kilns.[90]

In their 2005 annual report, the Advisory Group stressed the importance of providing information on the benefits and beneficiaries through consultation with communities. In 2006, the Group continued to request more concrete information from the Bank to "support the contention that community benefits – whether intrinsic or not – are being aimed at poor people and that these people are participating in defining desirable benefits and evaluating their delivery."[91] By 2007, the initial evidence from surveys administered by the Bank to collect this information pointed to the need for project managers to monitor community benefits "beyond the initial phase of enthusiasm," and to make sure that benefits were "additional" to those that the project sponsors were already planning to deliver.[92]

Loosening of Size Constraints May Further Reduce Community Benefits

The CDCF originally placed limits on the volume of emission reductions that could be generated by any one project and that could be purchased from any one country. The goal was to ensure that finance was chan-

neled to priority low-income countries and was used for small, community-based projects. But the pressure to deliver emissions reductions at low transaction costs has led fund participants to relax the size constraints for priority countries. The donors decided at their 2006 annual meeting that country limits provided "sufficient constraint on project size." At the same time, they lifted size limits on projects outside priority countries.[93]

The now dissolved CDCF Advisory Group cautioned that increasing project size might dilute the value of community benefits, especially where benefits were merely "added on." They were also concerned that increasing project size would weaken the CDCF's commitment to geographic distribution because of the lack of capacity to manage large carbon-cutting projects in many of the poorest countries. Then, in 2007, participants did away with geographic constraints altogether.[94]

Size limits, geographic constraints and social benefits were all meant to make the Community Development Carbon Fund unique – and a model for the marriage between carbon finance and sustainable development. But, as the fund's advisors point out, the social objectives and small project size make project developers look elsewhere for carbon credit customers. CDCF donors, who are trying to "do the right thing" by investing in credits that are allegedly "pro-poor" can't even get their hands on enough credits to reach their reduction targets.

The Community Development Carbon Fund, with a capital investment of $129 million, accounts for a mere 6% of all carbon finance through the Bank's trust funds. Even adding in the $90 million now in the BioCarbon Fund, which lists "improved livelihoods for local people"[95] as one of its goals, less than 10% of the entire Bank's offset investment portfolio has explicit stipulations for sustainable development and community benefits, and even those have been ineffective.

The case of the CDCF makes clear: the carbon market is not a viable mechanism for delivering financial, environmental, or social benefits to the poor.[96] Therefore, one wonders why the World Bank, whose underlying mission is allegedly to help fight poverty, is engaged in the carbon market at all.

6. World Bank Conflict of Interest

The World Bank is playing both sides of the climate crisis. Between 2005 and 2007 alone, the World Bank Group loaned more than $1.5 billion for greenhouse gas-emitting projects in oil, gas and coal.[97] At the same time, what the Bank predicted in 1997 to be a 5% commission on transactions within the Prototype Carbon Fund[98] has grown to an average 13% "overhead"[99] on projects to cut greenhouse gas emissions. With carbon finance trust funds topping more than $2 billion, the Bank is looking at generating an estimated $260 million in revenues – to clean up a mess it is still making. [100]

The U.S. Treasury Department took note of this conflict of interests as early as 1998. In a leaked document from that year, Treasury staff called the Bank's plans to actively facilitate a carbon fund "inadvisable."[101] The internal document cites several reasons – mainly that carbon trading would "divert needed effort from reforming the Bank's mainstream power sector portfolio, which has a far greater potential impact on greenhouse gas emissions."[102] It also raised concerns that because the Bank stood to profit from emissions trading, it would have "very little motivation for decreasing baseline carbon emissions" from its own energy projects.[103]

Ten years later, at UN climate talks in Bangkok where 160 countries met in April 2008 to work out what in-

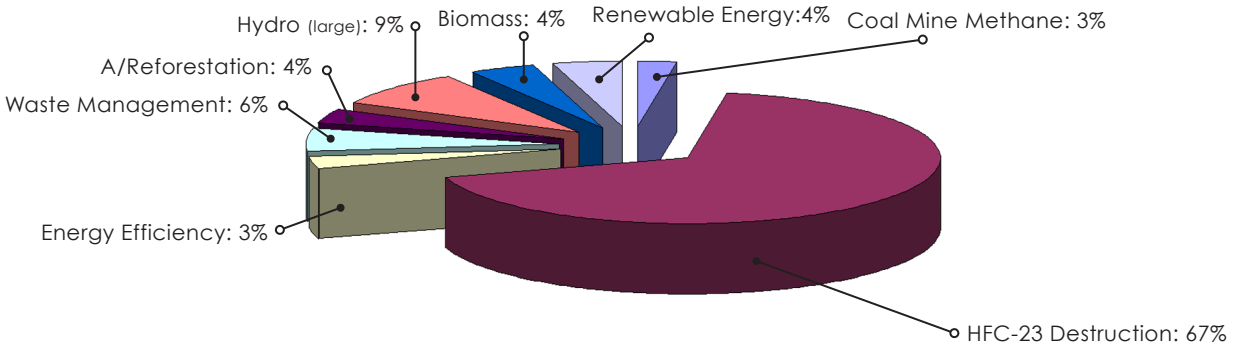
stitution should serve as the international watchdog for emissions trading, the World Bank tried again to assert itself as leader of the pack. Yvo de Boer, executive secretary of the UNFCCC, noted that it would be an open and shut case of conflict of interests for the World Bank to regulate a carbon trading regime in which it is already deeply involved in implementing projects and raising money. De Boer added that he didn't think "a bank… is in a better position to assess whether a project would lead to real, measurable, verifiable emission reduction" than the UN.[104]

7. Perverse Incentives

The major gas emitted from landfills is methane, which is released as organic matter rots deep in the belly of a dump. In carbon offset projects, methane is captured and when it is burned off, it is converted into less-potent carbon dioxide. In some World Bank carbon credit projects methane is recovered, treated, and combusted for power generation. Both of these activities qualify for emission reduction credits as they reduce carbon dioxide equivalent emissions in the first case, and offset electricity production from fossil fuels in the second. Landfill gas recovery projects are seen by developers and donors as "win-win" projects that deliver new revenue streams to developing countries through the commercialization of emissions reductions, and deliver climate change benefits.

The World Bank counts private landfill owners as well as the people that work and live on or near landfills as the main beneficiaries of these carbon offset projects.[117] But in at least two cases, the Bisasar Road Landfill (see Case Study #3) and the Tianjin solid waste facilities in China, Bank carbon offset-related finance kept unwanted landfills open. In addition, flaring waste methane can have serious health consequences. While the Bank states that the landfill gas capture and flare projects "should have no adverse environmental impacts," it also admits that "lessons learned" from past projects found air pollutants emitted from flaring could include harmful nitrogen oxides, sulfur oxides, acid

World Bank Carbon Finance Contracted Emission Reductions Volume



The data used to generate this chart were compiled by the author from the World Bank's online project database (http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/0,,menuPK:115635~pagePK:64020917~piPK:64021009~theSitePK:40941,00.html), the Carbon Finance Unit's online project database (http://carbonfinance.org/Router.cfm?Page=Projport), the UNEP Risoe Center online CDM database (http://cdmpipeline.org/publications/CDMpipeline.xls), and World Bank project documents.

gases, non-volatile organic compounds, and particulate matter.[118]

The World Bank trade research group's own analysis of landfill gas capture projects in the institution's portfolio "suggests that the projects are underperforming relative to initial estimates of methane anticipated to be captured and destroyed."[119] The World Bank should be supporting waste-composting projects, as it has in Chile and is proposing to do in Uzbekistan, and begin financing waste reduction programs to shrink the volume of trash that arrives at landfills.

8. Missing the Forests for the Carbon

Trading forest carbon credits has become a burgeoning business for the World Bank. Its signature afforestation and reforestation program is the BioCarbon Fund, which began as a small fund in 2004 and has expanded to a second funding tranche in 2007. In that year it was the top buyer of carbon credits from biological carbon sequestration worldwide.[123] The BioCarbon Fund is the basis for a new $300 million Forest Carbon Partnership Facility (FCPF). The FCPF, in turn, will link to a proposed Forest Investment Fund with investment capital targeted at $1 billion.

With this forest-related carbon financing, the Bank is raising hopes that communities can be paid for sustainable forest management. However, with these hopes come concerns about who ultimately benefits from and is responsible for preserving standing forests, and whether, in a warming world, these forests will have the expected capacity to pull carbon dioxide out of the atmosphere.

At least half of the acreage under contract for afforestation and reforestation through the BioCarbon Fund is managed as plantations. The remaining half is managed mainly in agroforestry projects (such as shade-grown coffee farms), or is being replanted for watershed protection and wildlife corridors.

Three-quarters of the BioCarbon Fund emissions credits are sold on the voluntary market. This means the emissions reductions they are offsetting in the North are purely voluntary. For example, in 2006 Nicaragua Precious Woods Holding AG, a private Swiss agroforestry company that also has operations in Brazil and Costa Rica, signed an agreement to sell 175,000 tons of carbon dioxide reductions to the BioCarbon Fund. The reductions were expected to come from non-native "luxury" teak plantations being established on two former privately owned cattle ranches. Of the 1,500 hectares planted, emissions reductions from 700 hectares will be sold to the Bank (as "verified" not CDM "certified" reductions). Emissions from the remaining 800 hectares will be retained by Precious Woods to sell directly in the emerging voluntary forestry carbon credit market. Another 350 hectares of secondary forest and mature tress is included in the project parcels, for which Precious Woods may be able to claim "avoided deforestation" credits in a post-2012 carbon trading regime.

Furthermore, the notion that these carbon emissions are stored "permanently" in forests is both misleading and dangerous. Forests die – due to manmade and natural causes. But the greenhouse gases that are emitted in exchange for these standing forests last for decades, if not centuries.

The Bank claims that out of its arsenal of tools to make forest credits permanent, the best way to keep the carbon in trees is to support project activities that make maintaining forests more lucrative than cutting them. However, this raises the critical question: Lucrative for whom?

Who is Responsible for Generating Reductions?

If the promise of potential profits from timber or coffee plantations is not enough to convince communities to maintain the forest offsets on their land for the long haul the Bank has a back-up plan. Contractual agreements between the World Bank, project sponsors, and community members (either individually or collectively) "require the emissions reductions to be maintained well beyond the immediate project life."[124] Because these contracts (and, in some cases, sub-contracts) are confidential, it is unclear what communities have signed on to, and what they're giving up in the process.

The case of the Moldova Soil Conservation Project raises questions about what parties the World Bank intends as the primary target of revenue from emissions reductions. Soil erosion is a serious problem for about one-third of all agricultural land in Moldova. Degraded lands have remained in community ownership mainly due to a lack of interest in passing them into private hands for cultivation.[125] The Moldova Soil Conservation Project aims to restore the productivity to 14,500 hectares of pasturelands with tree and shrub species well-suited for firewood and timber and in the process sequester more than 1 million tons of carbon dioxide.

Moldsilva, the National Forest Agency of Moldova, is the project sponsor. It holds (or will be transferred the rights to) 60% of the land involved in this forest carbon contract with the Bank's PCF and BioCarbon Fund. [126] The local community owns the remaining 40% of lands that will be replanted. Communities were given two options by project developers. The first – delegate planting and management (presumably including harvest) to Moldsilva for 10 years, after which the land would be returned to the communities with a number of contractual obligations regarding protection and management. The other choice – relinquish community land to Moldsilva altogether.[127]

The World Bank advocated that the community transfer the properties to Moldsilva given the advanced degradation of the land and its low economic value.[128] But the community decided to contract the day-to-day operations and management of afforestation to the agency for five to ten years, after which point the land would return to communal management.[129]

It is unclear in this project, as with others, who owns the rights to the carbon sequestered, what share of carbon revenues will ultimately go directly to participating communities, what additional parties will receive revenue from carbon credits, and why the Bank would advocate relinquishing ownership of land it believed would be regenerated through the project activities. The legal obligation of community members who have signed formal contracts for delivering carbon credits, and the implications if reductions are not generated, is also ambiguous. Permanent protection of carbon sinks after the life of the project is ostensibly covered in the confidential contracts between the Bank, the project sponsor and the host communities. Few details are publicly accessible beyond vague plans to develop an "agroforestry culture" and train community members in fire control.

Who Really Benefits from Forest Carbon Contracts?

Another project in the Bank's portfolio, the "Carbon Financing for Improved Rural Livelihoods" project in the Indian states of Orissa and Andhra Pradesh again raises the question of who benefits from forest offsets. Private paper company JK Paper Ltd. of India has taken the lead in developing a project in which plantations are

expected to create emissions reductions and provide local farmers with timber products to sell to paper companies.[130] The World Bank's role is to organize the farmers into co-ops and ensure "individual" landowner rights. JK Paper Ltd. will provide timber plantation technology and make loans to small farmers to implement the project. Each participating farmer will enter individually into buy-back contracts with the paper company.[131]

This project highlights concerns that private companies stand to gain greater benefit from carbon finance projects than local communities. In this case, as in others, the Bank is encouraging a land-use shift from subsistence agricultural cultivation to agro-industrial forestry. In economic terms, on one side of the equation is the local farmers' potential income from timber products. On the other side, lies JK Paper Ltd.'s possible income from interest on farmer loans and the creation of a cheap source of raw materials. The main beneficiary of this carbon finance formula is indeed unclear. As perhaps an unintended consequence of the project, farmers are trading communal land rights and their ability to feed themselves for the whims and price fluctuations of the international carbon market. As prices for staples such as corn and rice continue to rise globally, they are the ultimate risk-bearers in this scheme.

FOREST CARBON PARTNERSHIP FACILITY

The World Bank has recently rolled out a new carbon finance fund that aims to reduce emissions from deforestation in developing countries (REDD) through the carbon market. The Forest Carbon Partnership Facility (FCPF) is a $300 million effort to buy and sell emissions reductions from avoided deforestation in subtropical areas. The Facility will focus on slowing rates of deforestation in the Congo Basin, the Amazon Basin and Asia Pacific.

The new facility will experiment with sector-wide carbon financing. Instead of evaluating activities on a project-by-project basis, the Bank will work with forested countries to create national plans for reducing deforestation. As currently envisioned, $100 million will be spent building the capacity of governments in eligible countries – to measure their current greenhouse gas emissions, predict rates of deforestation, design national emissions reduction strategies, and develop monitoring systems. A $200 million carbon fund will pool capital from private investors and governments to purchase emissions that were "avoided" as a result of reduced deforestation in seller countries.

Environmental, indigenous, and human rights and development groups have registered fundamental grievances with the current design and design process of the Forest Carbon Partnership Facility.[132] Among their concerns: indigenous and forest dwelling peoples, the two communities who will be most directly impacted by large-scale tropical forest projects, were completely excluded from design consultations.

The governance structure of the FCPF is skewed in favor of donor countries, limiting control over how funding is allocated by the very countries who understand through first hand experience the complex dynamics of deforestation. But representation of the global South is not enough. Often these governments do not speak out on behalf of people dependent on forests, who are often politically marginalized in their own countries. As currently envisioned, indigenous peoples, non-governmental organizations, international organizations and the private sector have observer status, but are blocked from making decisions.

In addition, the FCPF considers social and environmental benefits to local populations "additional" to the main thrust of the program. At the same time, the

Bank itself notes that poverty is one of, if not the, main drivers of deforestation. Like the BioCarbon Fund, the legal implications of the "responsibilities" given to local communities for generating emissions reductions are unclear. The Facility has no guidelines to help communities understand what money they may be liable for, or what share of carbon offset revenue they should expect. As the Forest Carbon Partnership Facility charter is currently written, industrial logging companies could actually reap greater benefits from avoided deforestation than local community stewards. And with the emphasis on "avoiding" deforestation, the big winners will be countries that historically have the worst deforestation rates. Countries where forest protection has been successful are punished for their low deforestation levels, creating a perverse incentive to deforest now, before baselines levels are established.[133]

In response to these, and other, fundamental flaws, civil society groups demanded that the World Bank halt the breakneck speed for FCPF development so proper public discussion could take place and key concerns be addressed by the Bank. But World Bank President Robert Zoellick proceeded with the FCPF launch at the UN climate talks in Bali in December 2007. The official launch was disrupted by hundreds of activists demanding that the World Bank get out of carbon finance and forestry, claiming that the new fund would "result in more forest destruction, greater displacement of indigenous peoples, and higher carbon emissions."[134] Zoellick's response in Bali: "I think it is time to get moving on some of these issues. Does that mean that you run risks, make mistakes? Probably. But that should not paralyze us."[135]

In response to the public outcry in Bali, the Bank committed to conducting three regional meetings to gather input from indigenous and forest dependent peoples. It has also held countless meetings with potential donor governments, NGOs who hope to win contracts under the "readiness" activities, and financial investors who are helping craft what they see as a sufficiently attractive regime for avoided deforestation carbon deals. The Bank has loosely proposed a May 2008 date for making the Forest Carbon Partnership Facility operational. The fact that before the FCPF has even opened the Bank is planning to link it to an even larger Forest Investment Fund, casts doubt on the institution's commitment to "learning by doing" instead of "doing" by learning what it can pass under civil society's radar.

9. Low Risks for World Bank, High Risks for Developing Countries

In the case of the carbon finance trust funds, the Bank has crafted rules of the investment game in a way that deflects financial responsibility back onto trust fund donors, developing country project sponsors and the communities in which projects take place, while protecting itself from any losses.

With both CER and VER agreements the seller in the Global South bears the "project risk" that the agreed-upon activity will take place.[136] If the project fails to generate the promised amount of emissions reductions three years in a row, or an unforeseeable event makes it impossible for a project sponsor to meet its obligation under a carbon contract (for example, the trees in a carbon sink plantation burn down), the burden falls on the Southern partner. The Bank can terminate the contract, and the project developer is responsible for any outstanding project preparation costs, CDM registration costs, taxes paid to the host country, and advanced payments (with interest accruing in the first scenario).[137]

If project sponsors feel that they are unable to generate the promised emissions because of the sub-contractor (like a community forestry cooperative), the sponsor can simply drop that sub-project and talk to the Bank about choosing new local partners to work with.[138]

In the case of Certified Emissions Reductions, the project sponsor in the developing country bears the risk for making sure projects have developed acceptable methodologies for generating additional emissions reductions that can be verified at the end of the year. In early conversations with Bank staff, they noted that projects that do not qualify for the CDM registration can be "dumped" on the voluntary market, thus the project is not a total loss.[139] In later conversations, staff asserted that the Bank has never switched from a CER contract to a VER contract.[140] Ostensibly, the project sponsor could try to sell credits from non-qualifying activities on the voluntary market.

This would be akin to a manufacturer dumping children's toys made with lead paint in Haiti after being rejected from the U.S. market for falling short of safety standards. The company still profits, but the product does not meet high standards, and the impact on the kids who play with these toys may never be known.

Under VER general conditions, the Bank bears the risk of projects passing methodology criteria. If the project activities are accepted by the CDM Executive Board, the Bank will "upgrade" the contract to a CER agreement.[141] If the methodology is rejected, the Bank is obligated under VER contracts to buy the emissions reductions for the original contract value,[142] even if this means that the project generates fewer credits then expected.[143] In reality, even though the Bank is technically the "buyer" as the trustee, the carbon fund donors cover whatever financial losses this change in methodology might represent.[144]

The general conditions for emissions reductions credits on the regulated and voluntary markets both show that if a project fails, the Bank has nothing to lose, while Southern partners are left with the biggest tab.

10. Climate Investment Funds: New Tricks, Same Old Dog

The World Bank's latest scheme for grabbing the reins of the carbon market is the development of three new Climate Investment Funds. According to a leaked Bank document from January 2008 the funds are intended to "finance transformation."[145] In the consultation paper, the Bank outlines plans for a Clean Technology Fund ($5-10 billion), an Adaptation Pilot Fund ($1 billion – a later version of leaked documents names this the Pilot Program for Climate Resilience, part of a Strategic Climate Fund), and a Forestry Investment Fund ($1 billion). Much like the carbon funds already in the Bank's portfolio, this design gives a rhetorical nod to a "low-carbon development path" and promises to "maximize co-benefits through environmentally sustainable management of natural resources."[146] But the first item on the list of things to do is "fast-tracking" market-based solutions to climate change in developing countries.

The Adaptation Pilot Fund is described in the leaked memo as a "bridging facility" that will demonstrate how to support climate change adaptation through international finance. The Bank contends it will provide useful information for designing adaptation funding when the Kyoto Protocol expires in 2012, "including influencing the design of the Adaptation Fund that was recently agreed at the UNFCCC..."[147]

This in particular flies in the face of an explicit agreement reached at the UN climate negotiation in Bali, In-

donesia, in December 2007 about the funding and governance of climate-related activities. At those meetings, developing country delegates won a hard-fought battle to have the newly created Adaptation Fund housed in the Global Environment Facility (GEF), instead of the World Bank. Delegates were explicit that they wanted to establish an executive board for the fund on which the majority of seats would be reserved for developing countries. The new Climate Investment Funds wrestle power back out of the hands of those most affected by climate change and institute a donor-driven governance structure that leaves developing countries without a voice.[148]

The Clean Technology Fund is poised to be anything but clean. U.S. Treasury Department staff working with the Bank to draw up the rules for the Clean Technology Fund reported that this fund will have no mandate for renewable energy technologies. The United States is backing the Bank's "nothing off the table" approach to transferring business-as-usual technologies from industrialized countries in the developing world – but funding will be concentrated in countries with large emissions, not those most in need of energy access.[149]

The Forest Investment Fund will link into the Forest Carbon Partnership Facility by providing financial support to the FCPF and provisional lending to developing countries for up-front investments for reducing emissions from deforestation and degradation. In the consultation draft, the Bank recognizes that the demand for forest and agricultural projects, including biofuels, has put forests in the complex position of being both a key driver – and a victim – of climate change. Yet one of the Forest Investment Fund's four transformational goals will be to "[s]cale-up Multilateral Development Banks (MDB) investment lending for sustainable biomass and biofuel feedstock supply," albeit with sustainability and poverty alleviation outcomes.[150] The Bank contends that Forest Investment Fund activities will be executed in collaboration with NGOs and civil society groups, among other parties. But if the fund is modeling itself on the Forest Carbon Partnership Facility, it seems unlikely that such collaborations will take place.

The draft consultation memo raises more questions about the World Bank's plans for delving deeper and forging new paths into the carbon market. The United Kingdom's International Development Committee has already concluded in a recent report on development and the World Bank they "are skeptical that creating a new Trust Fund in addition to the dozen or so that already exist within the Bank for such work is the best way forward for this money."[151] Troublingly, watchdogs will have to depend on leaked and Bank-censored documents to get critical information on the new Climate Investment Funds, as the World Bank has yet to decide whether all documents will be made publicly available.[152]

The World Bank's present maneuvering to get ahead of, and functionally set the rules for, a post-Kyoto UN climate regime hearkens back to the years before the Kyoto Protocol came into effect when the Bank took it upon itself to pilot what would become the Clean Development Mechanism. In these new funds, the Bank is pushing a "programmatic" approach that would see unprecedented emissions baselines set for whole sectors (the forestry sector, waste management sector, etc.) for entire countries.[153] The Bank sees this as the wave of the future – in generating large quantities of cheap credits that will keep industrialized countries polluting in the Global North and offsetting in the South after Kyoto expires. And if similar targets for greenhouse gas concentrations are adopted after 2012, the estimated annual $27 to $175 billion in North to South payments

for carbon credits is enough to ensure that the Bank will keep its fingers in the carbon market as a trustee, broker and trailblazer.[154]

Conclusion

The mission of the World Bank's carbon finance program is to bring about "a global carbon market that supports sustainable development, reduces transaction costs and reaches and benefits the poorest communities of the developing world."[155] Conspicuously absent from this mission statement is any mention of reducing global greenhouse gas emissions or promoting clean, renewable energy.

The Bank is succeeding in creating a market where Northern governments and companies can buy ever cheaper and larger quantities of carbon credits. Carbon funds are expected to continue expanding to fill the financial spaces created by UN climate negotiations. And the Bank is politically positioning itself to gain from what will likely be the greatest ecological disaster of our time.

A review of the World Bank's carbon finance activities clearly shows that poverty alleviation and long-term sustainable development are not high on the Bank's list of priorities. Little funding has been explicitly directed toward community development or clean energy access in developing countries. Indeed, many of the Bank's carbon finance projects threaten the health and livelihoods of the poorest and most vulnerable communities, while potentially adding to the global carbon burden. The international community should reconsider the Bank's role in alleviating the burden of the climate crisis on the global South.

If Not Carbon Finance, Then What?

- The least the Bank must do to combat climate change is to follow the recommendations of its own Extractive Industries Reviews and stop all public financing of coal, oil, and gas exploitation.
- Clean Energy Investment Fund: Funding from industrialized nations for climate change adaptation and clean technology transfer in developing countries must remain under the auspices of the UN Framework Convention on Climate Change, and not be housed at the World Bank.
- Carbon debit system: The World Bank and its donors must be held accountable for the climate footprint of project and policy activities. Donors should have the amount of greenhouse gases produced from projects they support debited against any emissions credits they hope to claim through offsetting.

Climate change is upon us. For the sake of all, but especially those who are already most affected, and the planet, it is time for global civil society to demand an end to the World Bank's role as climate change profiteer.

Appendix 1: Acronyms and Glossary

CCX—Chicago Climate Exchange

Voluntary, legally binding integrated emissions reductions trading system for all six major greenhouse gases with members in both the public and private sectors.

CDCF—Community Development Carbon Fund

Public/private initiative administered by the World Bank that provides carbon finance to projects in the poorer areas of the developing world.

CDM—Clean Development Mechanism

Mechanism for project-based emission reduction activities in developing countries. Certificates are generated through the CDM from projects that lead to certifiable emissions reductions that would otherwise not occur.

CER—Certified Emissions Reductions

Permits generated through the UNFCCC's CDM.

CFU—Carbon Finance Unit

World Bank initiative that uses money contributed by governments and companies in OECD countries to purchase project-based greenhouse gas emissions reductions in developing countries.

CIF—Climate Investment Funds

World Bank proposal for $7-12 billion in investments through the Clean Technology Fund including a Pilot Program for Climate Resilience, and a future Forest Investment Fund.

CO2 —Carbon Dioxide

Greenhouse gas most heavily contributed by human activity such as fossil fuel burning and land use change.

EIR—Extractive Industries Review

World Bank Group review of its activities in the extractive industries sector.

ER—Emissions Reductions

Generated by a project that have not undergone a validation/verification process, but are contracted for purchase.

ERPA—Emissions Reductions Project Agreement

Binding purchase agreement signed between buyer of CERs and seller.

EU ETS—European Union Emissions Trading Scheme

Trading scheme for emissions reductions within the European Union.

FCPF—Forest Carbon Partnership Facility

World Bank initiative launched at the 2007 Bali conference to provide funding mechanisms for reduced emissions from deforestation in developing countries to help countries reduce and trade off-set emissions.

GHG—Greenhouse Gas

Trace gases that control energy flows in the Earth's atmosphere by absorbing infra-red radiation.

HCFC—Hydrochlorofluorocarbons

Refrigerant chemical and ozone-depleting gas regulated under the Montreal Protocol.

HFC-23—Trifluoromethane

By-product of HCFC production. It is a greenhouse gas 11,700 times more potent than carbon dioxide.

JI—Joint Implementation

Mechanism under the Kyoto Protocol for transfer of emissions permits from one Annex B country to another.

LULUCF—Land Use, Land Use Change and Forestry

Sector included under the Kyoto Protocol to take into consideration certain human-induced activities that remove greenhouse gases from the atmosphere (carbon sinks).

NGO—Non-Governmental Organization

Legally constituted organization created by private persons or organizations with no participation or representation of any government.

PCF—Prototype Carbon Fund

Partnership between 17 companies and six governments and run by the World Bank that manages the market for project-based greenhouse gas emission reductions.

REDD—Reduced Emissions from Deforestation (and Degradation) in Developing Countries

Plan proposed in Bali to compensate reductions in deforestation. The aim is to have a deal ready for signing by the UNFCCC 2009 Copenhagen conference.

RGGI—Regional Greenhouse Gas Initiative

Cooperative effort by Northeastern and Mid-Atlantic states in the United States to reduce carbon dioxide emissions through a regional cap-and-trade program initially covering emissions from power plants. The Eastern Canadian Provinces and New Brunswick are observers in the process.

tCO2e—Tons of Carbon Dioxide Equivalents

Measurement unit for emissions reductions. Carbon dioxide is the reference gas against which the global warming potential of other greenhouse gases are measured.

UNFCCC—United Nations Framework Convention on Climate Change

Established at the 1992 Rio Earth Summit as the overall framework guiding the international climate negotiations. Its main objective is "stabilization of greenhouse has concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

VER—Verified Emissions Reduction

Greenhouse gas emissions reduction generated by small scale projects, assessed and verified by third party organizations rather than through the UNFCCC.

WB(G)—World Bank (Group)

Internationally supported development institution that provides loans and grants to developing countries.

Appendix 2: World Bank Carbon Funds

The World Bank acts as a financial trustee and broker for the following funds:

Prototype Carbon Fund

Established in 1999, opened in 2000 and closed to project proposals in 2006; PCF used $180 million contributed by five government and 18 private partners to pilot greenhouse gas emissions activities; the PCF closes its portfolio with 24 active projects, half of which have been registered with the CDM Executive Board

Netherlands CDM Facility

Established in 2002 with the target of delivering 38 million tons of emissions reductions in carbon dioxide equivalent. To date, 80% of financing has been for heavy greenhouse gas mitigation.[156]

Community Development Carbon Fund

Created in 2003 to focus on small projects that seek to reach countries and communities that are neither presently benefiting from development through carbon finance nor are likely to benefit greatly from it in the future; comprises 6% of carbon finance portfolio.

Netherlands European Carbon Facility

Created in 2004 by an agreement between the World Bank and the International Finance Corporation (IFC) to integrate carbon finance in Central and Eastern European Country Assistance Strategies through the UN Joint Implementation program.

BioCarbon Fund

Operating since 2004 to support both large-scale projects in developing and "emerging" countries and smaller land management projects in agro-forestry, dryland restoration and avoided deforestation.

Italian Carbon Fund

Created in 2004 with capitalization of $255 million from the Italian Ministry for the Environment, Land and Sea and six companies from the cement, power and petroleum sectors.

Danish Carbon Fund

Established in 2005 by the Danish Ministries of Foreign Affairs and Environment and with participation from Denmark's only cement company, an energy company, a power and carbon dioxide allowances trader, and a private gas venture of Shell, Chevron and Mearsk. It has reached capitalization of $84 million.

Spanish Carbon Fund

Created in 2005 by the Spanish Ministries of Environment and Economy to promote the use of cleaner technologies and sustainable development in developing and transitional countries.

Umbrella Carbon Fund

Developed in 2005 to pool resources from mainly private capital and existing funds to purchase an expected 130 million tons of carbon dioxide equivalent from the destruction of HFC-23 from industrial gas manufacturers in China, the single largest project in the World Bank's carbon finance portfolio.

Carbon Fund for Europe

Established in 2007 in partnership with the European Investment Bank, with the World Bank as trustee, to complement private sector participation in the carbon market and support the development of a private carbon market.[157]

Forest Carbon Partnership Facility

Launched in December 2007, scheduled to open May 2008; will direct carbon finance to "avoided deforestation" national-level programs in tropical and subtropical regions, includes a $100 million "Readiness Fund" and a $200 million "Carbon Fund."

Endnotes

1. World Bank Group, "Consultation Draft on Climate Investment Funds," January 22, 2008; see also "How the World Bank's Energy Framework Sells the Climate and Poor People Short," September 2006. Available on the Sustainable Energy & Economy Network website: www.seen.org
2. World Bank Group, "The Role of the World Bank in Carbon Finance: An Approach for Further Engagement," May 24, 2006.
3. More emissions reductions may have been generated to date in the voluntary markets, but because these transactions are not disclosed to the public, there is no way of knowing for sure.
4. Heike Mainhardt-Gibbs, "World Bank Group Financing for Extractive Industries Development," Bank Information Center, April 2007. Available at: http://www.bicusa.org/en/Issue.Resources.6.aspx
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Cover photos

Eucalyptus Plantation, Minas Gerais, Brazil. Pig-iron manufacturer Plantar has received millions of dollars from the World Bank for the sale of carbon credits to generated by substituting coal with charcoal made from eucalyptus trees that were planted on razed forest lands. (Photo: Tamra Gilbertson)

Quilombola Charcoal Worker, Espirito Santo, Brazil. Aracruz Cellulose and Plantar, private companies that both receive World Bank support, manage lands in Quilombola regions. (Photo: Tamra Gilbertson)

Water, Water Everywhere, Orissa, India. Boys in Talcher doing their best to get clean drinking water from a river laden with toxic fly ash dumped upstream by a World Bank -financed coal-fired power plant. The groundwater is also depleted, having been used by the thermal power plant for cooling. (Photo: Daphne Wysham)

Climate Security, Bali, Indonesia. Local military stand guard at the entrance to the UNFCCC climate talks in Bali, Indonesia. Only those registered with "accredited" organizations were allowed to enter the conference compound. A "Solidarity Village for a Cool Planet" was held outside in response. (Photo: Ben Powless)

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