

CDM large hydro status note for the World Bank/IETA Carbon Expo

June 2004
International Rivers Network
& CDM Watch

Introduction

The World Bank claims that its flagship carbon market vehicle – the Prototype Carbon Fund (PCF) – is focussed primarily on renewables, and includes small hydro as one of the most common renewable technologies it is developing¹. This is deliberately misleading. The Bank includes hydro projects up to 43MW as “small hydro” in its calculations, many times the commonly accepted capacity limit of 10MW. In fact, of the 8 Clean Development Mechanism (CDM) hydro projects currently being developed by the PCF, 5 are in excess of 10MW and thus large hydro projects, not renewables. These 5 projects generate nearly twice as many carbon credits as the PCF’s 8 existing CDM renewables projects combined [see tables on p5]².

The PCF’s large hydro projects are also beginning to undermine the Bank’s rhetoric about developing

“high quality” carbon credits. Not only is the Bank’s biggest CDM large hydro project in trouble due to its blatant non-additionality, but the Bank is being left behind by the increasing use of World Commission on Dams (WCD) criteria as an assessment tool for CDM hydro projects by carbon credit buyers. Arguably, some of the Bank’s large hydro projects are currently not eligible for the new European Emissions Trading Scheme (ETS) – the world’s biggest carbon market - due to their failure to show how they have “respected” the principles and guidelines of the WCD, as the ETS requires³.

The Bank, dams and carbon credits

The mid-1990s saw the World Bank reduce its support for large hydro projects in response to the controversy of the Sardar Sarovar project in India and mounting evidence of the social and environmental impacts of large dams. Yet in recent years the Bank has begun to re-engage in large hydro projects as part of its broader strategy of focussing on so-called “high risk-

¹ The 2003 Annual report states: “*The primary focus of PCF projects is on renewable energy technologies – such as wind, small hydro, and biomass....*”

² Only projects for which a PDD is available are included in this calculation. We do not include the Mauritius waste incineration project in our calculations as we do not consider this technology to be renewable, but we do include the electricity generation component of the Durban landfill gas project.

³ The ETS requires hydro projects above 20MW to show how they have “respected” the WCD and other hydro-related guidelines and standards to be eligible to have their credits traded in the ETS.

high reward” projects⁴. The Water Resources Sector Strategy adopted in February 2003 commits the Bank to “*re-engage with high risk/high reward hydraulic infrastructure*” – that is, large hydro projects - and identifies carbon finance, specifically the CDM, as one of the ways in which these projects can be funded.

This policy is now being operationalised through the Bank’s carbon funds, most notably through the PCF. The PCF was established in 1999 and invests contributions from governments and corporations in CDM and Joint Implementation (JI) projects. Contributors receive a *pro rata* share of the carbon credits generated. Despite claims that the PCF would focus on renewables it has a significant large hydro CDM component which currently generates more carbon credits than the PCF’s renewables CDM projects. Of the Project Design Documents (PDD) currently available for PCF CDM projects, 5 are large hydros. They are expected to generate nearly 4 million carbon credits by 2012. In contrast, the 8 renewable energy CDM projects for which PDDs are available – 3 of which are small hydro projects – will generate just over half this amount, around 2.2 million carbon credits.

More large hydros are coming through the PCF pipeline and also being developed through other World Bank carbon funds. The PCF is developing the 39MW Rio General large hydro project in Costa Rica which is expected to generate a further 1.4 million carbon credits by 2012, and a large hydro project in China which is expected to generate 1.7 million credits

by 2012⁵. The Bank’s Carbon Finance Unit is developing the 15MW Sibimbe large hydro project in Ecuador which is expected to generate half a million credits. The fund that the Bank manages for the Dutch government – the Netherlands Clean Development Facility (NCDF) - is developing the 78MW Rio Amoyá large hydro project in Colombia, which will generate 1.8 million carbon credits by 2012, and the 55MW Hornitos large hydro in Chile, which will generate up to 1.5 million credits in that time frame⁶. It must be noted that the Bank is also developing additional renewable energy CDM projects through the PCF, and it is likely that the NCDF will also develop renewable projects.

The combined total of the Chinese large hydro, Rio General and the existing 5 PCF CDM large hydro projects is about 7 million carbon credits, compared to the expected total of 51 million generated by the 43 CDM and JI projects currently being developed by the PCF. Of these 43, only 30-35 are expected to make up the final PCF portfolio. If all the large hydro projects are included they will make up a substantial percentage of the total carbon credits generated by the PCF, and an even greater percentage of the PCF’s CDM portfolio. Furthermore, the 3.3 million credits that will be generated by the two NCDF projects means that large hydro projects already make up just over 10% of the maximum of 32 million carbon credits that will be sourced through the NCDF⁷.

⁴ “The World Bank at 60. A case of institutional amnesia?” Report by IRN; www.irn.org.

⁵ No information has been given about the capacity of this project, but given the credit volumes we assume it is over 10MW.

⁶ Information provided by World Bank carbon finance helpdesk.

⁷ <http://carbonfinance.org/router.cfm?Page=NLClean>

Methodological purgatory

The Bank refers repeatedly to its “high-quality” carbon credits, and portrays itself as a leader in promoting sustainable development through the CDM. Yet its large hydro project portfolio is beginning to undermine this rhetoric. In June 2003 the Bank’s biggest large hydro project, El Canadá, had its baseline and monitoring methodology rejected by the CDM Executive Board’s Methodologies Panel because it was unable to prove that it is additional – ie that it wouldn’t have happened anyway. Given that El Canadá was 70% completed at the time it sought approval for its methodology, this seems indisputable. Regardless, the Bank argued that El Canadá’s additionality was demonstrated by economic modelling that showed it was “*an unlikely candidate for system expansion investment*” in Guatemala – surely an irrelevance given that it was already fully financed and nearly complete. The Panel rightly rejected this absurd argumentation and the methodology as a whole. In December 2003, as scheduled, the plant came on-line and is currently operating. The developer marked the occasion with a media release in which they claimed to be generating carbon credits, with no mention of the methodology rejection⁸.

One year later, the Bank has still not resubmitted a methodology for El Canadá, and given that the plant has been operating for seven months it is hard to see how they will demonstrate that its completion was dependent on the CDM. To have its largest hydro project in this methodological purgatory does not sit well with the Bank’s “high-quality” rhetoric. Nor, more broadly, does the promotion of blatantly non-additional projects such

as El Canadá and the attempt to develop methodologies that are designed to gain approval for them, especially when these methodologies could then be used by other non-additional large hydro projects. If anything, El Canadá has only helped to underline the concerns of many that large hydro projects are particularly likely to be non-additional, and should be excluded as a project type from the CDM.

Disrespecting the WCD

The Bank’s ongoing refusal to demonstrate how their hydro projects have taken the recommendations of the WCD into account also belies its claim to be setting high standards for CDM projects. The WCD is widely acknowledged as the most comprehensive set of principles and guidelines for ensuring the sustainability of hydro projects, yet they are not mentioned in the project documentation of any of the Bank’s hydro projects. In contrast, both the Netherlands⁹ (for whom the Bank manages two carbon funds) and Germany¹⁰ have said that they will require hydro CDM projects to comply with the WCD and the European Emissions Trading Scheme – the biggest carbon market in existence and a major driver of demand for CDM credits – mandates that hydro projects above 20MW must “respect” the WCD to be eligible. It is thus becoming increasingly untenable for the Bank to argue that its carbon projects are the pace-setters relating to sustainable development when its hydro projects ignore the WCD. And given that hydro projects over 20MW must show how they have “respected” the WCD if they

⁸ “Enel starts up carbon credit generating power plant”, 15.12.03.

⁹ The Netherlands requires intermediaries developing CDM projects to “*apply those [WCD] criteria*”.

¹⁰ Germany requires “*compliance with standards as they have been defined for the use of hydropower by the World Commission on Dams (WCD) ...*”.

are to access the ETS, it is arguable that 3 of the Bank's large hydro projects are currently ineligible to trade their credits in the world's largest carbon market¹¹.

What is "small"?

The Bank's "high-quality" rhetoric is further undermined by its blatantly misleading claims that all its hydro projects are "small" hydro. The cut-off for a small hydro project is 10MW. This standard, according to the International Association for Small Hydro, is "*becoming generally accepted.*" 10 MW is used by the European Small Hydropower Association, and the International Energy Agency's Small-Scale Hydro Task Force, and Renewable Energy Working Party. Indeed, at COP6 in The Hague in 2000 the EU produced a "positive list" of CDM projects that set a 10MW limit for eligible hydro projects. Yet the Bank persists in labeling all of its PCF hydro projects as "small", including the 43MW El Canadá project, 30MW El Gallo project and 26MW Chacabuquito project. This then allows them to make the misleading claim that its project portfolio is dominated by "*wind, biomass, small hydro...*" when in fact only 3 of its 8 hydro projects are "small". When asked for a definition of small hydro by the International Rivers Network (IRN) in May 2004, the PCF responded that "*Small hydro would be 15 MW or less. We follow the Marrakech Accords definition of small-scale projects*"¹². Yet this confuses two separate issues. The small-scale provisions of the Marrakech Accords allow projects with an installed capacity up to 15MW

to use simplified modalities and procedures when seeking approval to reduce transaction costs that would have been prohibitive for projects of this size. But this does not mean that a hydro project that meets this criterion is a "small" hydro project in the sense that the term is commonly used; only that it is a "small-scale" project under the Marrakech Accords. To claim that projects meeting the Marrakech Accords "small-scale" provisions are therefore "small hydro" projects is a calculated attempt to confuse. The Bank's answer to IRN also does not address the fact that on its website it refers to projects above 15MW as "small hydro" projects, not just those that meet the Marrakech Accords provisions.

Conclusion

Behind the rhetoric about renewable energy the World Bank is using carbon finance to help it re-engage in the financing of large hydro projects. This is not consistent with its claim to be promoting sustainable development, nor to be generating "high-quality" carbon credits. Compounding this is the dissembling about what is a "small" hydro project, the ongoing attempt to get approval for business as usual projects, and the refusal to use WCD principles and guidelines as others are increasingly doing. All up, large hydro projects continue to be a blot on the World Bank's carbon finance copybook.

For more information:

Ben Pearson
CDM Watch
cdmwatch@indosat.net.id

Patrick McCully
Campaigns Director
International Rivers Network
patrick@irn.org

¹¹ The three are the 26MW Chacabuquito project, the 30MW El Gallo project and the 43MW El Canadá project.

¹² Email from World Bank Carbon Finance helpdesk to Patrick McCully, Campaigns Director, IRN, 6.5.04.

World Bank Carbon Finance large hydro projects

Projects for which a PDD is available

Project name	Capacity (MW)	Location	Fund	ERs (to 2012)
Chacabuquito	26	Chile	PCF	1,436,000
El Canadá	43	Guatemala	PCF	1,297,620
El Gallo	30	Mexico	PCF	563,872
Benito Juarez	15	Mexico	PCF	285,384
Chilatán	15	Mexico	PCF	362,556
Sibimbe	15	Ecuador	CFU ¹³	547,016
Total				4,492,448

World Bank Carbon Finance large hydro projects in the pipeline

Credit numbers from Project Idea Notes on the PCF's website
and from the Bank's Carbon Finance helpdesk

Project name	Capacity (MW)	Location	Fund	ERs (to 2012)
Rio General	39	Costa Rica	PCF	~1,400,000
Unknown	Unknown	China	PCF	1,750,000
Rio Amoyá	78	Colombia	NCDF ¹⁴	1,875,000
Hornitos	55	Chile	NCDF	1,500,000
Total				~6,525,000

World Bank Carbon Finance renewable projects

Projects for which a PDD is available

Project name	Technology	Capacity (MW)	Location	Fund	ERs (to 2012)
Jepirachi	Wind	19.5	Colombia	PCF	406,905
Vara Blanca	Wind	9.6	Costa Rica	PCF	115,971
Chorotega	Wind	8.4	Costa Rica	PCF	144,042
Cote	Small hydro	6.3	Costa Rica	PCF	97,100
Trojes	Small hydro	8	Mexico	PCF	225,620
West Nile	Small hydro	6.6 ¹⁵	Uganda	PCF	706,000
Gemina	Biomass	1.432	Nicaragua	PCF	109,710
Durban	Landfill gas to electricity	Not clear	South Africa	PCF	445,000 ¹⁶
Total					2,250,348

¹³ Carbon Finance Unit.

¹⁴ Netherlands Clean Development Facility, managed by the World Bank.

¹⁵ Two small hydro units of 5.1 and 1.5MW; two diesel backups of 1.5 and 1MW.

¹⁶ Credits claimed for the displacement of grid electricity by electricity generated from captured methane. The project also claims 3.4 million credits for capturing methane emissions.