

CARBON MECHANISMS REVIEW

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The Long Road to 2015

UN Climate Summit Delivers Second Life
for Kyoto but no Deal to Revive Carbon Market

Arguing the Point:

Should Large-Scale Power Projects
Have a Future under the CDM?

Content

January to March 2013



4 The Carbon Market: Which Way Forward?

Essentials on Cooperation with
Developing Countries

7 House Cleaning in Doha

UN Climate Summit Delivers Second Life
for Kyoto but no Deal to Revive Carbon
Market

11 Smallest Common Denominator

CDM Negotiations in Doha End with
Minimum Consensus, JI Mechanism to
Undergo Reform

13 Arguing the Point:

Should Large-Scale Power Projects Have a
Future under the CDM?

18 Bikin Tiger JI Project:

A new Approach to Forest Protection

22 Milestone

Cross-Border, Open Access and Fair Trade:
The innovative PoA – “Improved Cook
Stoves for East Africa”

editorial

Dear reader,

the second Kyoto period is here – with few players and low targets. Emission trading schemes are multiplying worldwide – and the flagship EU ETS is in crisis. These are the contrasts that mark the state of the carbon markets at the start of the ‘post-2012’ era. Yet the widespread conviction remains that the private sector must do its bit on climate change, and not just by way of offsetting, but increasingly with activities that deliver a net benefit for the atmosphere. We wish to accompany this phase of transition and transformation with a new quarterly publication, the first issue of which you are now reading. *Carbon Mechanisms Review* will critically appraise developments and contribute to the debate with analysis, opinion articles and backgrounders. Our focus will not be restricted to CDM/JI and other project-based approaches such as Japan’s bilateral offsetting mechanism. Further topics include the new market mechanisms, (market-based elements of) nationally appropriate mitigation actions (NAMAs), and emission trading schemes worldwide. We will cover all this with a blend – familiar from the predecessor publication, *JIKO Newsletter* – of editorial articles and guest contributions from highly regarded authors in the subject area. For this issue, we have secured Axel Michaelowa and Michael Lazarus for a two-way debate on whether there is still a place in the CDM for large-scale power projects. This is the first in a series of word battles on current topics. As the main focus of this issue, we provide an in-depth analysis of the Doha climate summit. This is supplemented with an opinion article, ‘Carbon Market Options’. Finally, we present two innovative CDM and JI projects: a cross-border PoA in Africa and an afforestation project in Russia. We hope you enjoy this first issue of *Carbon Mechanisms Review* and we look forward to your response.

For the editorial team
Christof Arens



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The Carbon Market: Which Way Forward?

Essentials on Cooperation with Developing Countries

Silke Karcher and Thomas Forth, German Environment Ministry

With the first commitment period having come to an end, potential new demand is nowhere to be seen. If nothing changes as a result of the climate change negotiations, both the review of the Kyoto Protocol targets for the second commitment period and the new international climate change agreement will only lead improved incentive structures in the second half of the current decade.

This foreseeable scenario has pushed certificate prices from one low to the next. Months ago, they were already at a level that will not attract new investment in climate change mitigation. More recently, a debate has ensued regarding the ceiling below which CERs would no longer be issued even for current projects. Accordingly, it would appear sensible to allow a project to continue under the CDM at a certificate price of go.48 as long as no further maintenance costs occur on top of the initial investment. At this price, the direct transaction costs would still be covered. This only applies, however, for projects already running. For new projects, additionality is questionable when prices remain at this low level. Additional, and especially high-quality, projects require significantly higher prices.

Despite this situation, the methodologies used in the CDM and those derived from it can be used for projects conducted outside the carbon market. This can be instrumental both in preventing windfall effects and in enforcing harmonised standards. The High Level Panel on the CDM Policy Dialogue has suggested making CDM processes and institutions available for other climate change mitigation instruments. It is certainly worth considering whether, given the manageable

transaction costs in the CDM, its methodologies (or ones derived from it) should be used to evaluate all climate financing projects with quantifiable emission reductions.

This would have at least four positive outcomes:

- The structures of the carbon market would be maintained
- The progress made in reforming the programmatic CDM and the standardised baselines would find application
- The CDM to NAMA approaches would lay the foundation for the scaling up of all climate change mitigation instruments and ensure climate policy inclusion in host countries
- Climate finance is directed at real, additional reduction activities and business-as-usual projects do not receive funding.

Against this backdrop, it will be assessed whether the development of a suitability and quality assurance check for emission reduction activities might be useful for all international climate change mitigation instruments. This proposal is currently being discussed online at www.jiko-bmu.de. Feedback, both critical and constructive, is welcome.

Taking the LDC market seriously

The over-supply of certificates places the CDM Policy Dialogue proposal to establish a CDM Reserve Fund in an initially



Yi Zhang / UNFCCC Photo Contest

favourable light. However, the idea has attracted little enthusiasm so far. On the one hand, it is highly unrealistic that the immense volume of over-supply can realistically be addressed with the current rather limited funds available for such an activity.

On the other, a purchasing mechanism is not the best way to tackle the problems involved in contentious projects. It would be very difficult to justify investing climate finance in the pur-

chase of certificates from coal-fired power stations whose additionality is questioned by the CDM Methodologies Panel. Also, buying up this amount does not put the carbon market back into operation, and so will not solve the problem. It will not generate new demand, and new projects would have no better chance of being implemented than they had before.

As a result, the final submission date for the second trading period in the EU Emissions Trading Scheme (EU ETS) is awaited

with interest. In April, it will be revealed to what extent installation operators have exhausted their CER/ERU allowances. In return, this will show how, at least in theory, international certificates can be used in the near future if at all. If they can, it will foster at least some hope that CERs generated from new CDM projects conducted in LDCs will be given preference in the third trading period.

Repairing the EU ETS is thus of great importance for LDCs. But in any case, the EU and its member states must be aware that with the preference given to CERs from LDCs back in 2008, they fostered great hopes which led many LDCs to engage in the CDM. Regardless of whether the EU ETS serves as a source for much-needed demand, implementation options must be developed soon to make CDM projects initiated by LDCs a success.

Outlook for 2013

International response to the new market mechanisms (NMMs) has been reserved so far. The ability to form a consensus in designing the NMMs has reached its limits as far as the climate change negotiations are concerned. What is missing is experience with complex market mechanisms of this kind. Plus, many developing countries have little incentive to participate in the new mechanism. To date, they have been unable

to see how the industrialised countries would be involved – either at state or at business level. Accordingly, the obstacles faced by industrialised countries who want to see this instrument used to include developing countries in international climate change efforts are high.

If the NMMs are really to be made ready in time for the new international climate change agreement, preparations must be completed by the end of this decade. This means more than just a detailed decision like the one reached on the Kyoto mechanisms in the Marrakesh Accords. Rather, sectors must be defined for the host countries and their options for own contributions, including the use of emission reductions to meet their own targets (voluntary or binding). Also, the industrialised countries must issue clear statements on their demand for certificates from NMM activities. This process is significantly more complex and fragile than the CDM situation back in the early 2000s.

If the NMMs are really to be established, a great number of pilot projects will be necessary which also include implementation of measures. Various policy frameworks are thinkable: If the certificates are retired, they could be counted towards climate financing. If they are used, they could be used to tighten up the targets for the second commitment period. In addition, in a similar way to the CDM Prompt Start, the new international climate change agreement would bring forward the use of NMMs.

For this year, it is important that initiatives to develop specific NMMs actually get underway. Financing will not be the only problem in this regard. The question arises as to how the new market mechanisms provide differ from the CDM, and how host countries might overcome the obstacles they face in developing them.



Chris Kirchoff, medioclubsouthafrica.com



House Cleaning in Doha

UN Climate Summit Delivers Second Life for Kyoto but no Deal to Revive Carbon Market

Wolfgang Sterk

The UN climate conferences are always good for drama. After the conference had once again been in overtime for almost a full day, COP President Al-Attiyah rush-gavelled through the key decisions in 90 seconds against Russia's objection. In the last days of the conference, many had already seen the talks close to collapse and were wondering whether a COP 18bis would need to be convened in Bonn this year. However, the drama was hardly corresponding to the agenda of the conference, which had been named a „transitional COP“ from the beginning. JIKO Info analyses the most important controversies and outcomes.

The Doha agenda included finalisation of the rules for the Kyoto Protocol's second commitment period (CP2), finishing the Ad-hoc Working Group on Enhanced Cooperative Action (AWG-LCA) that had been started in Bali in 2007, and agreeing a work programme for the new negotiation track that is to deliver a new comprehensive agreement by 2015.

In the end, this list of task was formally completed. The Kyoto Protocol as the so far only internationally legally binding emission reduction instrument will be continued and after the closure of the Kyoto and the LCA tracks the negotiators can now fully concentrate on the ADP.

Business as Usual in the Second Kyoto Period

However, after the defection of the USA, Japan, Canada, New Zealand and the Russian Federation the Kyoto Protocol is only a shadow of its former self and the commitments of the remaining countries are well below the minus 25-40% suggested by the IPCC. Most of the commitments are hardly better than business as usual. Also, CP2 will run eight years instead of five,

the 1990s these countries will probably accumulate about 13 billion surplus emission units in CP1 and these may be fully carried over to CP2. Doha only managed to put in place some restrictions on using these surplus units in CP2: They may only be used for complying with the CP2 targets if emissions in a country go above the target and buyers may only purchase them up to a maximum of 2% of their CP1 targets. In addition, all potential buyers submitted political declarations saying that they were not going to buy CP1 surplus units.



ENB/Earth Negotiations Bulletin

Surprisingly, there will at least be no new “hot air” during CP2. Belarus, Kazakhstan and the Ukraine had again submitted targets well above their current and projected emission levels. However, Doha decided that all CP2 units above the average level of emissions in 2008-10 will automatically be cancelled. Another controversy was the future access of Canada, Japan, New Zealand and Russia to the Kyoto mechanisms. Developing countries demanded that only CP2 participants should be allowed to continue using the Kyoto mechanisms. The conference ultimately decided that the non-participants countries may continue to

potentially locking in this low level of ambition until the end of the decade. As a concession to developing countries, Parties are obliged to consider strengthening the commitments in 2014. However, there is currently no reason to expect that stronger political will is going to materialise over the next two years. In addition, the former Eastern block countries rejected all attempts to take the so-called “hot air” out of the system. Due to their economic collapse in

participate in CDM projects and may have credits issued from these projects while only CP2 participants may transfer credits onwards. A non-participant government may therefore purchase and cancel CDM credits and claim that this cancellation should be counted towards its emission reduction pledge. In addition, the new reporting tables agreed under the AWG-LCA for industrialised countries’ biannual update reports provide a column for recording the

use of market-based mechanisms. While the table has a disclaimer that this reporting shall not prejudge the treatment of units towards the achievement of pledges, the technical infrastructure for doing so is therefore now in place.

Participation in JI will, however, be completely closed to the Kyoto refuseniks.

Money's Too Tight to Mention in the AWG-LCA

After having started with great applause and hopes for a new climate policy future in 2007, the AWG-LCA closed down amid strong acrimony and disappointment.

And on the positive side, the AWG-LCA has resulted in more than 80 Annex I and non-Annex I countries making emission reduction pledges as well as a bevy of new institutions: the Green Climate Fund, the Standing Committee on Finance, the Technology Executive Committee, the Climate Technology Centre and Network (CTCN), the Adaptation Committee and the Adaptation Framework. However, many of the emission reduction pledges are unclear, have conditionalities attached and cover wide ranges of possible reductions. For instance, the USA continues to refuse harmonising its emissions accounting with the other industrialised countries. The annual UNEP emissions gap report has no less than four scenarios on how the pledges may play out, ranging from 52 to 57 Gt CO₂-eq. of emissions in 2020. And even the best-case scenario is a full 8 Gt CO₂-eq. above where emissions should be as a maximum in 2020 to maintain a reasonable chance to achieve the 2°C target. UNEP also warned that the gap has actually increased by 2 Gt CO₂-eq. compared to the previous year's report, rather than decreased.¹

And while there is a host of new institutions, they remain to be endowed with actual meaning, that is, the resources to actually do some work. The key AWG-LCA controversy in Doha was on the continuation of climate finance after the fast start period 2010-2012. Developing countries' demands a clear

No Progress in the New Market Mechanism Negotiations

The negotiations about new market mechanisms (NMM) were also part of the AWG-LCA. The Durban conference had agreed to "define" an NMM and mandated the AWG-LCA to elaborate detailed rules by the Doha conference. In addition, Durban decided to discuss the necessity of creating a "framework for various approaches" (FVA) to harmonise and link up currently emerging national systems. However, contrary opinions once again clashed over the course of 2012 and in Doha. While most countries have the position that only credits which have been generated under UN supervision should be counted towards targets, in particular Japan, New Zealand and the USA demand to leave maximum flexibility to countries to create their own systems. In their view, the UN should only provide transparency but not have an approval function. As regards the NMM, there were no strong supporters outside Europe so here as well there was no progress. Discussions were also hampered by the unclear relationship between the FVA and the NMM. Should the NMM be under the umbrella of the FVA, as conceived by many, or not, as preferred by the EU? The conference therefore ultimately only extended the deadline for elaborating detailed rules for the FVA and the NMM by another year.

The NMM decision can be downloaded here: http://unfccc.int/files/meetings/doha_nov_2012/decisions/application/pdf/cop18_agreed_outcome.pdf, Section „D – Various Approaches“.

roadmap how financial support will be continued after 2012 and scaled up to the USD 100 billion annually from 2020 that were promised in Copenhagen and Cancún. But with the exception of some European countries most industrialised countries refused to clarify how much finance they were going to provide over the next years. In the end developing countries therefore only got a vague promise that industrialised countries will try to continue providing as least as much as during the last years, which was roughly USD 10 billion annually.

¹ Greenhouse Gas Emissions Gap Widening as Nations Head to Crucial Climate Talks in Doha - UNEP <http://www.unep.org/newscentre/Default.aspx?DocumentID=2698&ArticleID=9335&l=en>, accessed 17 December 2012.



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ADP Work Programme to Be Defined

The Durban conference last year decided that a new comprehensive climate agreement is to be negotiated by 2015 and start being implemented in 2020. In addition, a second work stream under the so-called “Durban Platform” is to negotiate ways for scaling up mitigation ambition for the period up to 2020. The task of the ADP for Doha was merely to agree on the work programme for the next years. Which was achieved, but it turned out much less specific than many had hoped. Instead of a series of workshops with clear thematic focus as proposed for example by the small island states, the content of the next sessions was largely left open and will be left to the co-chairs of the ADP to be determined.

The Long Road to 2015

Given the deeply entrenched controversies it is difficult to see how an ambitious climate agreement is supposed to be agreed in 2015. Many blame the UN process for the weak outcomes and suggest that climate change should be dealt with in other fora. However, the main problem is not the process. The

G20 and other fora have been dealing with climate change for years, and with the same lack of results.

The fundamental issue is that international politics do not happen in a vacuum. The positions countries take internationally are determined by their domestic political situations. International negotiations can therefore rarely take decisions that have not previously been prepared nationally. And the current situation is that in most key countries there is as yet no appetite to undergo the fundamental economic and ecologic transformation that is necessary.

Progress in the international climate negotiations will therefore only be possible if sufficiently large pro-climate advocacy coalitions can be brought together in the key countries and across borders. And while it is certainly not able to save climate on its own, the international climate process can serve as a key catalyst for the national discussions.

Smallest Common Denominator

CDM Negotiations in Doha End with Minimum Consensus, JI Mechanism to Undergo Reform

Christof Arens

The decision on CDM reform reached at the Doha conference was an especially weak showing. Although many contentious issues had been hotly debated, in the end there was little time to form a consensus and large passages of text were simply removed from the negotiation document.

Negotiators did, however, agree on a process for the review of the mechanism as called for by the Kyoto Protocol. Under the auspices of the UNFCCC, a workshop will be held at the end of May which will provide input for discussion at the subsidiary body sessions in June. Parties to the Protocol and observer organisations have until 25 March to submit their proposals. The Subsidiary Body for Implementation (SBI) will then discuss the proposals, the results of the workshop and the recommendations of the CDM Executive Board (EB), and then draft a document for use in the negotiations at the CMP in November.

In addition, the CMP decided to extend accreditation of the Designated Operating Entities (DOEs) to five years. The negotiators were, however, unable to reach agreement on clearer liability rules for the DOEs. For projects that are deemed to be automatically additional, the EB is called upon to check whether the validation step can be done away with in order to reduce transaction costs. The EB will also push ahead with simplification of the CDM methodologies to

ensure better regional distribution of CDM projects. The effect of the voluntary development tool adopted by the EB at the end of 2012 is to be evaluated. Issues such as the withdrawal of letters of approval, the shortening of crediting periods and India's proposal for a fund to regulate excess supplies of CERs did not find their way into the CDM reform decision.

With regard to Joint Implementation (JI), on the other hand, negotiators agreed on a comprehensive reform of the mechanism. The two JI tracks are to be combined and the accreditation process is to be merged with that for the CDM. Also, clear and transparent rules on proving project additionality are to be developed and procedures for the development of baselines will be defined. All documentation for JI projects must in future be published on the UNFCCC website.

The CDM decisions are available at:

http://unfccc.int/files/meetings/doha_nov_2012/decisions/application/pdf/cmp8_cdm_v1.pdf

The JI decision can be viewed at:

http://unfccc.int/files/meetings/doha_nov_2012/decisions/application/pdf/cmp8_ji.pdf

Use of CERs and ERUs in the Third EU ETS Trading Period

Which certificates may be generated by climate change mitigation projects after the Doha conference? Which states can they be traded between, and when and how may they be used in the third trading period of the EU Emissions Trading Scheme?

Konrad Raeschke-Kessler, of the German Emissions Trading Authority (DEHSt)

In Doha it was agreed that the CDM would be continued without a break, and a procedure would be developed to accelerate the issuance of ERUs under JI. Rules on the use of CERs and ERUs in the EU Emissions Trading Scheme (EU ETS) promise to be complex in the future:

Project-generated emissions certificates will be exchanged for (aviation) emissions allowances by means of an online process at the request of installation and aviation operators. The Registry Regulation was amended accordingly on 23 January. Within the EU, a process is still needed, however, which allows all operators to exhaust a specific minimum amount of certificates. Once implemented, approximately 1.6 billion certificates will be eligible for use in the EU ETS during the period 2008 to 2020; this means around 450 million certificates for existing installations in Germany.

Restrictions apply for certain CERs and ERUs

- Certificates for reductions up to 2012 can in principle be used until 31 March 2015
- Certificates from industrial gas projects (HFC 23 and adipic acid) can only be used until 30 April 2013.
- Certificates for reductions as of 2013 and which were generated by CDM and JI projects registered in or before 2012, and CERs from CDM projects conducted in LDCs from 2013 onwards, may be used until 31 December 2020.
- For JI projects conducted within the EU up to the end of 2012 and causing direct or indirect reductions in the emissions from installations covered by the ETS (double counting), ERUs and CERs must be issued by 31 December 2012. This also applies for CDM projects in Malta and Cyprus, both of which belong to the Annex I countries as of 2013.
- ERUs from installations that come under the emissions trading scheme from 2013 must be issued by 30 April 2013;
- ERUs from JI projects in third countries with no Kyoto Protocol target which were issued after 1 January 2013 may only be used in the EU ETS if validated by the JI Supervisory Committee or, if that is not possible, if the accredited JI auditor has verified that the associated reductions occurred by the end of 2012.

For a more detailed description of the exchange process and the associated restrictions, see www.jiko-bmu.de



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Arguing the Point:

Should Large-Scale Power Projects Have a Future under the CDM?

A debate by **Axel Michaelowa** (University of Zurich/Perspectives)
and **Michael Lazarus** (Stockholm Environment Institute)

Large-scale infrastructure and power plant CDM projects have long attracted criticism. Examples include large hydropower projects and investment in more efficient coal-fired power stations. There is dispute – not least on the CDM Executive Board itself – whether such projects can reliably demonstrate additionality. Given the size of the funding involved, plant lifetime and the small impact on the projects’ rate of return, many commentators question if CDM can really be the key break-even factor.

Against this backdrop, we invited two highly regarded CDM experts to set out their stance on whether large-scale power projects should be generally excluded from the CDM. Both authors have advised the High Level Panel with expert reports.



Dr. Axel Michaelowa has worked in international climate policy since 1994. He combines research and practice, the former at the University of Zurich and the latter at Perspectives, a consultancy launched in 2003. He has worked on a large number of approved CDM methodologies and has been a member of the CDM Executive Board’s Registration and Issuance Team.

Axel Michaelowa

The recent tendency of industrialized countries to fight against large-scale project types in the CDM is disturbing. First credits from industrial

Do not throw out the child with the bathwater!

gas projects were banned in all relevant jurisdictions.

Now large power projects are targeted. Arguments are

no longer as simple as in the context of the industrial gas projects where the perverse incentive to increase production in developing countries to the detriment of production in industrialized countries was the major issue. NGO representatives say that fossil power plant projects in the CDM lead to a perpetuation of emissions from the power sector. A recent policy brief by Michael Lazarus, Pete Erickson and Randall Spalding-Fecher argues that additionality of large projects is generally difficult to demonstrate. I disagree. If policymakers were willing to apply the same criteria that banks apply to loan requests, they could objectively differentiate between business-as-usual projects and those projects mobilized by the revenue from CER sales. Here the key issue is the assumed price of CERs. Under the current rock-bottom prices, no new project can seriously claim additionality, as revenue after deduction of transaction costs is close to zero. But in the past, when the majority of CDM projects was planned, developers expected prices ranging between 4 and 20 g/CER, which were then frequently fixed in forward purchase contracts. At such prices, CER revenues could make a difference, and have so in a number of countries. The generic argument that the change in the internal rate of return has to surpass a specific threshold also does not take into account that entrepreneurs do react on small incentives, if they are able to hedge for variations in other relevant parameters.

Michael's claim that all large power projects should be excluded also does not take into account that attractiveness of renewable energy projects strongly depends on site characteristics. The CDM should have the purpose to mobilize projects that are not commercially attractive on their own. Hydro projects in areas with variable rainfall or wind projects with a low average wind-speed should not be compared with projects in hugely attractive sites. Likewise biomass power projects in areas with high prices for biomass residues cannot be compared with those that get residues for free.

Instead of banning large power projects in general, a much more urgent problem that policy-makers need to resolve is the question whether lavish renewable energy subsidies should continue to be ignored in the additionality assessments. Their exclusion was sensible in the early days of the carbon market when only a small number of countries had renewable energy subsidies. Then, it could be rightly feared that the risk to lose CER revenues would lead to a delay in introducing renewable energy support policies. Now, as many countries have such policies in place and have reaped CER revenues, the situation has changed. I would propose to no longer exempt support policies from the additionality assessment five years after their introduction. India and China having policies in place for many years can easily be "weaned off" the CER subsidy. Then, the majority of problematic cases would vanish in one go.

We need to have a clear view: either we want the market mechanisms like the CDM to drive large-scale mitigation, or they will become irrelevant. This cannot be achieved if we throw out all project types that achieve large-scale mitigation. A differentiated approach is needed. Only then markets can really mobilize the lowest cost reductions.

Michael Lazarus

Or to invoke a rather different idiom (and image), perhaps large-scale power projects have become the elephant in the CDM room. For years,

Maybe this kid has become too big for the bathtub!

researchers have expressed concerns about the additionality of large, new, wind, hydro, natural gas, and coal projects, while policy makers have been reluctant to systematically address them. Analysts have shown that CDM revenues, even in good times, typically have a relatively small effect on the expected return of power sector projects (e.g., ~3% for wind and hydropower), often much smaller than normal fluctuations in other factors such as fuel prices or electricity tariffs. They have asserted that many power technologies in the CDM pipeline should be considered common practice, as their implementation is now widespread (e.g., hydroelectricity, wind, and higher-efficiency coal technologies). Furthermore, often, these technologies receive extensive government support in the form of feed-in-tariffs, other incentives, and mandates, designed to address local priorities such as energy security that are not taken into account in CDM decisions.

Last year, Pete Erickson, Randall Spalding-Fecher, and I conducted research that considered the extent to which the value and integrity of the CDM hinges upon the net emissions impact of these large-scale power supply projects. If the large majority of these projects are additional and operate well beyond the credit issuance period, we found, they could lead to a net decrease in global greenhouse gas emissions. However, if they are mostly non-additional, as research has suggested, the use of CERs from these projects could increase global greenhouse gas emissions by over a gigaton of CO₂e, cumulatively through 2020. Furthermore, over this same period, it turns out that the effective



Michael Lazarus

has over 20 years of professional experience in energy and environmental analysis. His research focuses on energy and climate change policy, carbon markets and offsets, and state and local climate change initiatives in the United States. He has been involved in developing a large number of CDM methodologies and from 2002 to 2007 was a member of the CDM Methodology Panel.

functioning of the CDM is at risk because of an excess supply of CERs of a similar magnitude.

In an SEI policy brief, we proposed a simple solution: transitioning the CDM away from large-scale power supply projects. We argued that moving away from large-scale CDM projects could not only improve the CDM's overall mitigation impact, it could help address the over-supply of certified emission reductions (CERs), support projects that truly depend on CERs, and provide the opportunity to focus on more effective support mechanisms for lower-carbon power in the developing world (supported NAMAs and scaled-up crediting and trading mechanisms, for example).

“Transitioning away from large-scale CDM projects could help address the over-supply of CERs” M. Lazarus

We have cautioned that such a transition would need to be carefully considered, bearing in mind governance and legal aspects and the need for maintaining investor confidence. Nonetheless, we feel that the time is right to give this idea serious consideration. The CDM is undergoing some seriously soul-searching. And new market mechanisms are being asked not merely to deliver efficiency and environmental integrity, but a net decrease in global GHG emissions as well.

What about other remedies? As for additionality, one could seek further improvements to additionality tests, such as the greater use of standardized methods or better investment additionality tests that consider the impact of CER revenues, as Axel suggests. However, these ideas have been around for as long as the CDM, and have yet to succeed for several fundamental reasons (low signal-to-noise ratios, information

asymmetries, and so on). A differentiated approach that identifies specific conditions in which the CDM is more likely to be a decisive factor for large-scale power project, as Axel suggests, might work, but such an approach is difficult to develop, defend, and approve. Changing the treatment of domestic subsidy policies in additionality assessment, as Axel also suggests, could be a double-edged sword that dissuades positive domestic policies in countries other than China and India and in sectors other than power. As for addressing the excess supply of CERs, some have recommended using a fund to buy and then cancel CERs. However, this remedy would be costly, could divert climate finance from other mitigation or adaptation activities, and would not address fundamental risks to environmental integrity.

Transitioning away from large-scale power projects in the CDM would not require new finance, or divert existing flows. It would help steer investment to project types with more certain additionality, including some that could actually help achieve a net decrease in global emissions through application of a discount or other mechanism. The phase-out of large power sector projects could be implemented by either CDM administrators (EB/CMP) and through a coordinated effort among major buyer-country governments, and in a manner that leaves large-scale power supply CERs that are already issued and held by actors in the carbon market in play.

I understand the discomfort with the suggestion to consider moving away from project types that are expected to generate the majority of CERs going forward. I have played a key role in developing the CDM methodology that underlies most of them (ACM0002 and its offspring), and thus feel some responsibility for the issues it has created. Indeed, as Axel suggests, there are bright spots—many power projects that, most likely, the CDM has helped bring to the market—though for CDM to work as intended these would have to be rule not the exceptions. Furthermore, CDM in the power sector has helped to create institutions and human capacities that can have lasting value in a transition to low-carbon power systems. But it is time to

¹ For further discussion of this research, as well as the fuller rationale behind our findings and recommendations, see our policy brief <http://sei-us.org/publications/id/468> as well as the underlying analysis in Chapter 4 of the CDM Policy Dialogue report, *Assessing the Impact of the CDM* http://www.cdmpolicydialogue.org/research/1030_impact.pdf

take stock of these successes, and as the CDM High Level Panel has suggested, time to “graduate” some project types from the CDM. After a decade, without confidence that a large majority of large-scale CDM power projects are additional, they should be considered next in line for graduation to other policy mechanisms that can be more ambitious, efficient, and effective.

Axel Michaelowa

Michael puts his finger on relevant challenges of the CDM market. It is clear that at low CER prices it is difficult to assess whether the CER revenue has mobilized a

Give project-based market mechanisms the chance to work!

project or not. But this is a problem which is due to the lack of political will to set stringent emissions targets and to allow CERs to contribute towards those targets. Low signal to noise ratios are not a design problem of the CDM. At a price of 50 g/CER, it would be easy to sep-

arate black and white sheep. At 50 cents/CER, it is of course virtually impossible! I agree with Michael that a CER stabilization fund is not a viable remedy as it would generate a short-term price spike that would eventually fade unless sustainable CER demand is generated.

I think that information asymmetries can be tackled in the assessment of additionality. If banks are able to find out which projects are promising and which ones are not, regulators should also be able to do so. This of course would mean that validations – which have already substantially improved – need to improve further. This would require clear liability for wrong validations. The World Bank’s push to do away with validation, which has been endorsed by a number of governments would lead us down the wrong road.

I agree with Michael that a reform of the CDM to contribute to global emission reductions is necessary, as we cannot continue to generate 100% offsets if we want to reach emissions paths compatible with the 2°C target. Discounting of CERs, ideally linked to the degree of development of the host country would be an ideal means to generate such reductions, and incentivize taking up commitments. This would allow us to “wean countries off” the CDM in an objective and transparent procedure. The solution which I propose regarding treating renewable energy subsidies in the additionality test would fit neatly into this strategy, as it makes clear that countries cannot expect to generate CER revenues forever.

In the medium term, we should see a coexistence of the CDM with new, more highly aggregated market mechanisms. The key outcome should be that project-based mechanisms do not prevent graduation of host countries to take up emission caps. I hope that within the next decade all mitigation possibilities that can be envisaged are mobilized by one of the market mechanisms, and that no options are excluded ex ante.



DigitalVision (Environmental)

A new Approach to Forest Protection

Bikin Tiger JI Project

Lukas Hermwille

For the Udege people, an indigenous tribe in south east Siberia, a lot was at stake. At the start of 2010, new legislation went into effect replacing a former Soviet law that had assigned protected status to the forests they call home.

Until then, the forest-covered valley of the Bikin river – a tributary of the Amur in the Russian far east – had been used to harvest nuts and, as a designated river plain, was protected against commercial forestry activity. With the entry into force of the new legislation everything changed. Selective commercial logging was suddenly permitted. For the Udege people, this posed a threat to their traditional lifestyle and to the natural surroundings they deem sacred. The Bikin valley is one of the last near-natural mixed-pine forests in eastern Siberia. It is home to a range of endemic species and is one of the few remaining refuges for the Amur tiger. A UNESCO World Heritage application is currently being processed.

There was an obvious solution. The Udege decided to apply to the responsible forestry authorities in the Primorje district, aiming to obtain usage rights for the next 49 years. But there was one problem: How to finance the cost of the associated license, measures against poaching and illegal logging activities and fire protection. To protect the forest against commercial timber felling, and prevent the loss not just of their own habitat, but that of numerous endemic animals – some of which are in danger of becoming extinct – the Udege worked with WWF Russia on an idea involving use of the Joint Implementation Mechanism (JI) to raise funds.

No comparable project had been implemented to date, meaning there was no previous experience to draw and build on. The Clean Development Mechanism restricts forestry projects

to afforestation and reforestation. Activities towards improved forest management (IFM) are not permitted. This was, however, the aim of the Bikin project. While with JI, no such restrictions exist, it has not been used for IFM projects to date – mainly because the EU does not allow the use of forestry carbon credits in its Emissions Trading Scheme (ETS).

Benefiting from the Voluntary Market, while Complying with JI Rules

This meant taking a new approach in the search for suitable methodologies. In the end, the project developers benefited from the Verified Carbon Standard (VCS). Under this standard a methodology was being developed for voluntary offsetting in a similar project in tropical forests. The project developers adapted this methodology to suit the local conditions in Siberia as well as the requirements for JI. The project also uses the additionality tool applied to CDM forestry projects to demonstrate that it satisfies the additionality requirement.

Developing the project document still proved extremely complex, however. The VCS methodology was not yet fully developed and had to be adapted to conditions in boreal forests. In calculating the baseline, three scenarios were used. Selective commercial logging in specific areas of the Bikin valley has been identified as the most probable scenario. A number of examples in the region show that this type of approval often leads to far greater use than is allowed.

This scenario was then used to calculate the expected emission reductions. Both the emissions from forest degradation



WWF/Guerrita Kahert

and those from timber processing and transport were taken into account. Leakage effects were then deducted from the final figure. Losses from illegal logging and natural disaster were also considered. Overall, protection of the Bikin valley forests will have prevented the release of 560,000 t CO₂-equivalent during the period June 2009 to December 2012 (the project life-cycle under JI).

Developing the baseline was one of the biggest challenges. *“The main problem is the amount of information needed, especially at the beginning. Forest projects are often criticised as being ‘cheap’ projects. But if this project type is designed so that it meets the especially high quality assurance standards that the German Environment Ministry, the KfW Bank and the WWF have laid down in their capacities as project supporters, the project development costs quickly add up*



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and reach a higher level than traditional CDM and JI projects,” says Joachim Schnurr, Managing Director of GFA ENVEST GmbH, the company commissioned to develop the Project Design Document (PDD). *“These requirements are reflected among other things in the challenge of meeting both the criteria for VCS and the Climate, Community and Biodiversity Standards (CCBS). As a third quality assurance measure, at the request of the supporters, the project was developed and registered under JI Track 2.”* While in Track 1, the host country can conduct the JI process at its own discretion, Track 2 requires verification by an auditor with JI Supervisory Committee (JISC)

accreditation. The JISC may also conduct its own review in the event of any uncertainty.

The decision to conduct the project under the umbrella of the UN Framework Convention on Climate Change was not without risk. The EU ETS – the biggest source of demand for UN carbon credits – excludes the use of credits generated in forestry projects. In addition, it is now clear that no additional JI credits can be issued for the Bikin project after 2012 because Russia, the host country, has not signed up for the second Kyoto Protocol commitment period. But for the Udege people

and their project partners at WWF, the efforts have still paid off. The project was registered at the end of last year, allowing at least credits for emission reductions from 2009 to 2012 to be issued under the JI mechanism. According to the project developer, a buyer has already been found and the revenue will be enough to cover the land license fees and the agreed security and monitoring measures until 2020. It will also allow investment in social projects in villages throughout the region.

An Example of Russian-German Cooperation

The project developers have also made provision for the period beyond 2012. Use of the VCS methodology for the voluntary offsetting market and also the CCB standard opens up opportunities for additional marketing of the project. The project is certainly suited to the voluntary market. Buyers in this market segment do not necessarily focus on greenhouse gas emission reductions, but more so on creating a positive image. Projects with noteworthy co-benefits are especially popular, such as those with a positive impact on indigenous peoples and biodiversity. The Bikin Tiger project has all these attributes, and potential buyers for voluntary credits have already been found.

Despite the more or less non-existent compliance market for credits from the forestry sector, the project developers hope that their project will serve as a beacon activity. *“The significance of [...] of registering the project under JI Track 2 ... Ed.] goes beyond a single project”,* says Alexey Kokorin, head of Climate and Energy WWF-Russia. *“Previously, the UNFCCC supported only reforestation projects. A significant step forward has been made now: approval of the project for the conservation of existing forests. This approval not only enhanced the status of the project in the Bikin River Valley, an excellent example of Russian-German cooperation on climate protection and biodiversity, but also will serve for similar initiatives. Now it will be easier for them to demonstrate their internationally acclaimed environmental importance,”* he adds.

The voluntary market similarly plays an increasingly important role for auditors like TÜV Süd. *“We are verifying more and*

more voluntary projects. Especially VCS, CCB Standard and Gold Standard projects, which increasingly focus on the forest sector,” says Sebastian Hetsch at TÜV Süd, the person responsible for validating the Bikin project. And he adds: *“Under JI, the future for such projects is extremely difficult. I don’t think that the voluntary offsetting market can completely replace the UN-regulated CDM and JI markets, but for the forest sector in particular, a whole range of projects can be conducted via the voluntary offsetting route. I believe the Bikin Tiger project will have a positive effect on projects using similar methodologies or similar configurations.”*

Registration as a JI project also demonstrates that, with a robust design, IFM projects can be recognised according to UN rules. This could also be of importance in the negotiations on the new international climate change agreement under the Reducing Emissions from Deforestation and Forest Degradation (REDD) negotiation stream; REDD aims at developing measures to protect tropical rainforests from deforestation – not least through the possible use of IFM. The importance of the Bikin project could thus stretch far beyond that of the current flexible mechanisms.

For more information on the project, visit:

http://ji.unfccc.int/JI_Projects/DB/ULD19J1NDCZQ6A5GRW1ZC5C2A17CE0/Determination/TUEV-SUED1350992513.26/viewDeterminationReport.html

CCB Documentation:

<http://www.climate-standards.org/?s=Bikin>

WWF Bikin Tiger Carbon Project page:

http://wwf.ru/about/where_we_work/dvo/forests/nutpro-drent/eng

Milestone

Cross-Border, Open Access and Fair Trade: The innovative PoA – “Improved Cook Stoves for East Africa”

Miriam Faulwetter, German Environment Ministry

In December 2012, the world’s first cross-border Programme of Activities (PoA) was registered by the CDM Executive Board. The “Improved Cook Stoves for East Africa” (ICSEA) program is designed to introduce energy-efficient cooking stoves and reduce greenhouse gas emissions in East Africa.



With its cross-border design, the ICSEA PoA represents a milestone on the road to more wide-reaching, broader-based emission reductions and new market mechanisms (NMMs). Apart from its regional design, the ICSEA also uses Fair Trade and open source approaches which take account of the conditions for carbon market projects in Sub-Saharan Africa.

Programmes of Activities allow a number of individual emission reduction activities to be combined as a single Clean

Development Mechanism (CDM) activity. This reduces transaction costs and enables complex project types with decentralised emissions, such as energy efficiency projects, to be included in the carbon market. According to specific rules, a PoA can be registered as a cross-border activity as long as a Letter of Approval (LoA) has been received from each host country.

Development of the PoA was promoted under the CDM/JI Initiative of the German Environment Ministry (BMU). As part of the initiative, the “Country Manager CDM, PoA and New Market Mechanisms” team from German aid cooperation agency GIZ worked closely with the Ugandan project developer, Uganda Carbon Bureau.

Pioneer project: Both globally and in Sub-Saharan Africa

The Climate Change Secretariat uses ICSEA as a best-practice example of cross-border approaches. Conducted in Sub-Saharan Africa, the project has been set up in a region so far under-represented in the CDM. As a cooking stove project, the PoA fosters sustainable development in matters of health, biodiversity and gender. It reduces the amount of smoke produced in living areas, prevents deforestation and makes women’s lives easier by cutting the time and effort needed to collect firewood. The first CDM Programme Activity (CPA) reduces emissions by an annual 40,000 t CO₂. Further programme activities and countries can be added under the PoA umbrella, thus increasing overall emission reductions significantly. Host countries so far include Uganda, Kenya, Burundi and Rwanda. The ICSEA is technology-neutral and thus open to regional and

country-specific variations in cooker types across Sub-Saharan Africa. Its innovation lies largely in components to promote local-level value creation and knowledge transfer.

As part of a Fair Trade approach, revenue from certificate sales is channelled to the participating cooker suppliers in East Africa. These pay an initial sign-up charge and a marginal annual membership fee. The revenue enables suppliers to offer their cookers at below-market prices or directly in conjunction with free maintenance services. This results in broad use of the cookers and the creation of value chains for sustainable development. It also prevents revenue flowing back to industrialised countries. The Uganda Carbon Bureau has no rights to the certificates. Rather it acts as a facilitator and advisor to project developers and suppliers. The coordinating and managing entity (CME) is ICSEA Ltd.



Uganda Carbon Bureau/ International Lifeline Fund

Open Source Fosters Follow-on Projects

Project materials, methodologies and approaches are provided to the public free of charge, sometimes by means of training courses, and can thus be used by other project developers. The German Environment Ministry supports the project in the development of training material and country-specific hand-outs. This makes the successful approaches used in the CDM suitable for replication in other countries.

Thanks to its sustainable development benefits, the project is about to receive Gold Standard certification. This will increase the chances of obtaining higher certificate prices on the currently weak carbon market. Pricing for the certificates will be centralised in order to keep market prices for cookers in Sub-Saharan Africa low and allow functioning markets to develop over time.

The design, registration and implementation of cross-border PoAs involve a number of challenges. From project development to collecting multiple LoAs for registration, management issues concerning how the CME works given the special requirements in coordinating and implementing a cross-border project are thus of great interest to the CDM community. ICSEA therefore represents a key design and practice mile-

stone on the road to broad-based emission reductions in the carbon market.

Further Information

CDM Unit in Uganda (GIZ on behalf of the German Environment Ministry):

http://jiko-bmu.de/basisinformationen/initiativen_bundesregierung/doc/1056.php

ICSEA Project Documentation:

<https://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/8M4PPYQK5DXE7Q5W6G8UMAHX9TVF14/view.html>

Uganda Carbon Bureau:

<http://www.ugandacarbon.org>

International Lifeline Fund, the first ICSEA registered cooker supplier and CPA:

<http://www.lifelinefund.org>

For more on PoA materials, see:

<http://www.ugandacarbon.org/services/information-and-publications>

JIKO policy paper 'CDM in Cities'

The new JIKO policy paper looks at possibilities for the carbon market to promote reduction measures in cities of the global South.

The paper can be downloaded here: www.jiko-bmu.de/1169

CDM/JI Country Profiles

This section of the JIKO Website provides information on potential CDM/JI host countries, with brief country profiles, relevant agreements and decisions, and helpful links. Find out more at www.jiko-bmu.de/471

Glossary

All CDM/JI-specific terms and abbreviations are explained in detail in the glossary on the JIKO website. You can view the glossary here:

www.jiko-bmu.de/459