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New Markets Ahead?

The Carbon Market as Ambition Raiser

Arguing the Point:

Is the Standardised Baselines Framework on the Right Track?

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editorial

Dear reader!

Australia, California, China, Costa Rica, Kasachstan, Québec, South Korea – the list of countries introducing or planning to install an emissions trading system is long. Recently, Mexico announced that it will be introducing a tax on fossil fuels. Emitting CO2 is going to be levied with about 5$ per tonne; alternatively a corresponding amount of CERs stemming from CDM projects in Mexico can be surrendered. These examples show that Carbon Markets are alive – in fact, in the form of trading schemes, market mechanims are actually experiencing a genuine boom.

In this issue of Carbon Mechanisms Review, we address this trend and present to you an analysis on the offsetting provisions of the most advanced emissions trading systems worldwide. In our cover feature, we are examining the perspectives for New Market Mechanisms and how developed and developing countries can jointly make use of this instrument.

The CDM is going to play in important role in this game: as standard setter, as methodology provider, as „open source“ system. Greater standardisation is among the options that may enhance the CDM's chances of acceptance in emerging emission trading systems. Therefore, our 'arguing the point' series features a debate on how to advance the current rules on CDM Standardised Baselines.

The oncoming climate talks at Warsaw are going to deal with fundamental issues regarding the flexible mechanisms – be it the review of the modalities and procedures of the CDM or decisions on the Framework for Various Approaches. Negotiators should therefore keep in mind that well-designed Carbon Markets are a vital element in the mix of instruments that can help achieving the ultimate goal of the Climate Convention.

On behalf of the Carbon Mechanisms Review team, I wish you an interesting and informative read.

Christof Arens

Wuppertal Institute
for Climate, Environment
and Energy

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JIKO Project Team
Döppersberg 19
42103 Wuppertal
Germany

Editor responsible for the content:
Christof Arens,
Energy, Transport and Climate Policy Research Group
Wuppertal Institute for Climate, Environment and Energy
E-Mail: christof.arens@wupperinst.org

Editorial team:
Christof Arens (Editor-in-Chief)
Thomas Forth
Lukas Hermwille
Nicolas Kreibich
Florian Mersmann
Wolfgang Sterk
Timon Wehnert

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Fragmentation versus Coordination

The use of offsets in emerging emissions trading schemes

Wolfgang Sterk and Lukas Hermwille

A number of countries are currently creating new national emissions trading schemes, most of which include the use of national or international offsets. In other words, they allow project-generated certificates to be used in meeting emission reduction targets rather than achieving actual emission reductions. This article provides an overview of the related rules and regulations in Australia, China, South Korea, and the U.S. State of California.

California

The U.S. State of California launched its emissions trading scheme this year as a key component of its climate change strategy, which aims to reduce emissions back to 1990 levels by 2020. Once fully in place, the scheme will cover some fourth-fifths of California's emissions – only the waste management and land-use sectors are excluded from the scheme.

The Californian scheme allows offsets to be used in amount equal to eight percent of a facility's emissions, representing a cumulative 200 Mt CO_2-equivalent by 2020. Although the state government had looked at the possibility of using the CDM, it threw out the idea due, among other things, to concerns regarding the mechanisms' environmental deficits. This decision is no doubt a product of California's extremely aggressive green movement, which has fought both emissions trading and the use of offsets before the local courts.

Although the U.S., Canada and Mexico all allow offsetting projects, the offset protocols (equivalent to CDM methodologies) approved so far relate exclusively to projects carried out in the U.S. These cover methane avoidance projects involving biogas facilities, the destruction of ozone-damaging substances, tree-planting in cities, forestation and forest management, and avoided deforestation. Other project types currently being discussed include coal-mine gas and methane emissions from rice fields.

China

As part of its twelfth five-year plan (2011 to 2015), the Chinese government will introduce emissions trading schemes in seven highly developed provinces and cities, which together generate about one quarter of the country's GDP. Their share in emissions is equally considerable. In 2007, for example, Guangdong Province produced more CO_2 emissions than those reported for the whole of Germany. These seven pilot emissions trading schemes account for some 700 Mt CO_2e – around one third of the emissions covered by the EU Emissions Trading Scheme (ETS) – and will pave the way for a national emissions trading scheme to be introduced in the period beyond 2015. The schemes are thus being used to test different approaches and structures, and have no uniform design.

While it was hoped that all seven pilot schemes would be up and running by the end of 2013, the only one currently in operation is in the Shenzhen Special Economic Zone. Those in Shanghai, Beijing and Guangdong Province are still expected to begin this year. But according to a survey conducted by the

	Status	Expected Average Price 2016 (EUR/tCO2e)	Use of Offsets	
			Allowed	Restrictions
Shenzhen	Launched	5.20	Yes	Unknown
Shanghai	Launch expected by end of 2013	4.80	Yes	5% of certificates issued
Beijing	Launch expected by end of 2013	4.70	Yes	Unknown
Guangdong	Launch expected by end of 2013	5.40	Yes	10% of certificates issued; certificates from Guangdong Province may also be counted
Chongqing	Launch not expected until after 2013	3.00	Yes	Unknown
Hubei	Launch expected until after 2013	4.00	Yes	10% of certificates issued for late-comers; 15% for participants at time of launch; Emission reductions from the forestry sector allowed
Tianjin	Launch expected until after 2013	4.00	Yes	10% of certificates issued

Table 1: Overview of Chinese Pilot Emissions Trading Schemes. Source: IETA and China Carbon Pricing Survey 2013

China Carbon Forum, many carbon market experts do not see the schemes in Chongqing, Hubei and Tianjin emerging until at least 2014, if at all.

All Chinese pilot schemes allow the use of offsets, but the respective regulating authorities may use their discretion when it comes to the quantities and the type of certificates they allow. In addition, offsetting may only be used in relation to projects carried out in China. The rules on this were laid down in June by the Chinese National Development and Reform Commission (NDRC):

- The NDRC is the competent authority for the issuance of China Certified Emission Reductions (CCERs)
- The rules are very similar to those of the CDM and many CDM methodologies have been approved for use in calculating CCERs
- Apart from new projects which use these methodologies and have been approved by the NDRC, existing CDM projects could also be used for the Chinese offsetting mechanism. Such projects can be marketed as classic CDM projects or via the Chinese emissions trading scheme. However, this would mean that the projects in question must not have generated CERs in the international market.

Up to now, two Chinese approval and certification entities have been authorized as designated institutions for CCER verification and certification.

Australia

In Australia, emissions trading in general and use of international offset projects in particular are highly contentious issues. The former Labour government had decided to introduce an emissions trading scheme which, from 2015 onwards,


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would allow the use international certificates up to an amount equal to 50 percent of a facility's emissions. Approval was given for the use of Certified Emission Reductions (CERs) from CDM projects, Emission Reduction Units (ERUs) from JI projects, Removal Units from forestry activities in industrialised countries, and EU ETS allowances. However, the recently-elected Conservative government intends to do away with the emissions trading scheme, whose offsetting rules had attracted strong criticism from within the party.

Another point of contention is the national offsetting scheme or Carbon Farming Initiative (CFI). The CFI allows the issuance of emissions certificates for emission reductions achieved in the forestry and farming sectors, and at old landfill sites throughout the country. CFI-generated certificates may also be counted towards targets in the Australian emissions trading scheme. The Conservative government wants to retain the CFI, making it a key element of its new climate change strategy in efforts to meet the country's Kyoto target for 2020 (a five percent reduction compared with the base year 1990).

South Korea

South Korea enacted legislation on the introduction of an emissions trading scheme in 2012. The scheme will be launched in 2015 and will cover some 60 percent of the country's emissions. South Korea has also decided not to allow international offsetting until at least 2020. The government justified this decision by saying that it wanted to concentrate on national emission reductions to begin with. National offset projects are expected to be allowed, but the rules have yet to be developed.

Fragmentation versus coordination

Two conclusions can be drawn from the above. First, the emissions trading instrument enjoys increasing international acceptance. There are some exceptions, however, as seen in the case of Australia. Second, there are signs of fragmentation in the offsetting market: all the schemes currently in place have their own offsetting structures which are designed to either supplement or substitute use of the Kyoto mechanisms. Instead of a common 'principle currency', as has been the case with the CDM, other currencies are gradually entering the market.

Apart from the transaction costs involved, the mechanisms' environmental integrity is also an issue. While it poses no problem as long as a mechanism operates within a country's national boundaries, it becomes a challenge when certificates are traded at international level and are counted towards UNFCCC targets. In such cases, it must be ensured that an activity is truly additional and also compatible, i.e. that a tonne of emission reductions in one scheme equates to a tonne of emission reductions in another. Also, when looked at purely from the accounting angle, the question arises as to how emissions and certificates can be calculated at international level. This is a particular concern regarding the planned linkage of the Californian Emissions Trading Scheme in the U.S. with the scheme now being developed by the Canadian Province of Québec.

Under the auspices of the UN Framework Convention on Climate Change, Parties are currently negotiating the creation of a Framework for Various Approaches (FVA), which will coordinate the various market-based instruments. The negotiations have got off to a very slow start, however. This is partly due to a difference of opinions on whether the FVA should be used purely to provide transparency or if it should be assigned an approval function. It remains unclear, therefore, as to how the increasingly decentralised initiatives might be coordinated in future. If no agreement is reached on international standard-setting, this could spark a 'race to the bottom' as both buyers and sellers of certificates will likely see an incentive to maximise their respective quantities.

References

Jotzo, Frank, Dimitri de Boer and Hugh Kater (2013). China Carbon Pricing Survey 2013. CCEP Working Paper 1305. China Carbon Forum.

IETA (2013a). A User's Guide to Emissions Trading in China. Available at: http://www.ieta.org/a-user-guide-to-emissions-trading-in-china--september-2013.

IETA (2013b). China – The World's Carbon Markets: A Case Study Guide to Emissions Trading. Available at: http://www.ieta.org/assets/Reports/EmissionsTradingAroundTheWorld/edf_ieta_china_case_study_september_2013.pdf

Kachi, Aki, Dennis Tänzler und Wolfgang Sterk (2012): Prospects for CDM in Post 2012 Carbon Markets. Discussion Paper. Berlin: German Emissions Trading Authority (DEHSt) at the Federal Environment Agency. http://www.dehst.de/SharedDocs/Kurzmeldungen/EN/CDM-discussion-paper.html

UNFCCC Flexible Mechanisms Negotiations

Can We Expect Progress in Warsaw?

Thomas Forth, German Environment Ministry, and Frank Wolke, German Emissions Trading Authority

One pillar of higher ambition for reducing greenhouse gas emissions is the use of market mechanisms to enhance the cost-effectiveness of and promote mitigation activities. However, the two approaches being discussed at international level – a framework for various approaches (FVA) and a new market mechanism (NMM) – still lack clarity regarding their scope, design and governance structures. In preparation for the negotiations in Warsaw, the UNFCCC Secretariat organised workshops in Bonn (7 – 9 October, 2013) on FVA, NMM and non-market-based approaches (NMBA). This article analyses the discussions held at the workshops and the tasks that lie ahead.

Background

Market-based mechanisms should be available post 2020, so discussion about and clarity on their design and implementation is required now. A liquid international carbon market with an up-scaled supply and demand balance can also trigger mitigation ambition in developing countries in efforts to achieve the common below 2 degree objective. When negotiating ambitious commitments, Parties will need to understand the multilateral landscape of available mechanisms. The EU's NMM approach is widely considered to be untimely given both the lack of demand on the carbon market and the lack of ambition regarding future commitments. As a result, designing the new mechanisms, negotiating modalities and procedures, and even implementing piloting activities, will all face considerable delay.

This is a challenging situation – one that can be interpreted as a classic chicken and egg case. In the disastrous event that Warsaw produces no agreement on NMM, it would mean a further step towards postponing the instrument's prompt start for quite some considerable time.

One excellent argument in favour of the NMM is its labelling as an 'ambition mechanism': Up-scaling and net mitigation require not only contributions by the host or implementing country, but also the readiness and the unwavering commitment of the investing country to buy the lion's share of the certificates.

Furthermore, this up-scaled carbon market instrument will not work without mobilising far greater private investment and extended technology cooperation. This would appear challenging for the partner country, indicating that the NMM will never be an easy compliance tool.

As the NMM does not enjoy the same simplicity as the CDM, the accounting challenge provides the key to progress. The EU objective is to secure a common, transparent, multilaterally agreed, robust and reliable MRV and accounting regime. Creating a common accounting system is essential in ensuring the environmental integrity of the multilateral climate regime and is a prerequisite to enable the use of market mechanisms to meet the commitments of all Parties.

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The following gives a brief account of the discussions held at the recent UNFCCC workshops in Bonn:

New Market Mechanisms (NMM)

With regard to NMM, the workshop was designed to advance the work of the SBSTA towards fulfilling the mandate provided in decision 1/CP.18, to develop NMM modalities and procedures for adoption at COP 19 in Warsaw. No decisions were necessary as the objective of the workshop was merely to provide an opportunity for discussion and interaction between Parties, experts and observer organisations with a view to clarifying and narrowing down the options for the role and technical design of the NMM.

The discussions highlighted a wide range of views on NMM, with Parties (especially the EU) on one side adhering to the COP18 decision to decide upon modalities and procedures in Warsaw, and those on the other – albeit only few – rejecting the need for NMM at all. Several parties raised the idea of linking NMM discussions to the broader debate about future ambition as they see a lesser need for it if demand remains poor.

With the exception of only a few Parties, participants agreed that NMM can contribute to increasing demand. As the scope, purpose and institutional arrangements have yet to be decided, the Parties agreed that guidance is needed from the COP. On the question of how the authority of the COP could be exercised, ideas ranged from a new body to the use of existing Kyoto Protocol mechanism infrastructures. When discussing experience with the CDM, many Parties saw a basic need to make NMM provisions simpler than those of the CDM.

To sum up, a common denominator has yet to be found in terms of the overall aim of developing/defining the modalities and procedures to be decided in Warsaw. Both the Secretariat and some Parties are optimistic that the Parties will agree on basic rules at COP 19, and that these will be further developed over the coming years. An implementing (interim) body was proposed which would then draft further decisions.

Nonetheless, it still appears too early to speak of converging views as the workshop discussions did not go into detail on rule-setting and there is still no draft on the modalities and procedures. The issues addressed at the Bonn sessions – the role of the NMM and its technical design, and a number of open questions – were only touched upon and not discussed in detail. Also, uncertainty remains as to how a "broad segment of the economy" might be defined, while


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the debate on concrete rules for MRV requirements and threshold setting has yet to begin. Hence, the situation as it stands undoubtedly has developing countries wondering whether they can derive any benefits at all from NMM.

Framework for Various Approaches (FVA)

Fuelled by the interests of certain Parties, the FVA received greater attention in the recent negotiations. Discussions held at the UNFCCC workshops set out a clear picture of the necessary safety fences highlighted by some Parties, signalling a broad consensus. This consensus appears to suggest that the backbones of the FVA must first be clarified and decided on before progressing further.

Japanese activities to promote the country's idea of bilateral mitigation measures via a Joint Crediting Mechanism (JCM) lie at one end of the FVA mechanism spectrum. Despite the constraints of its approach, JCM is a prime example of how to address concerns in international negotiations. The initiative further underlines Japan's interest in supporting the demand side of the carbon market.

At the other end of the spectrum, non-market-based policies and measures are seen as part of the puzzle. The question here is whether such policies/measures should or could be eligible for trading certificates across borders with the aim of using them for compliance. Whether this applies to the entire or only part of the spectrum of commitments depends on the FVA's structure, which must include viable and robust accounting rules and a set of criteria ensuring transparency and environmental integrity. Decisions on the eligibility of single schemes could then be taken on a case-by-case basis.

The EU seeks to establish a common, reliable and transparent accounting framework for market-based mechanisms and related units which cross Party borders to the extent that such units are counted towards UNFCCC commitments. This type of framework needs to guarantee a high level of environmental integrity and provide for real, additional, measurable, reportable and verifiable emission reduction efforts. According to the EU, these must avoid double counting of effort, and achieve a net decrease and/or avoidance of greenhouse gas emissions, thereby contributing to safe and sustainable development.

Experience gained and capacity established through the implementation and on-going operation of the existing mechanisms should be utilised to the extent possible when developing the FVA.

Conclusions and objectives for Warsaw

The need for decisions on modalities and procedures on NMM and FVA is evident if new market mechanisms are to be in place by 2020. Early NMM pilots might have a chance of generating certificates for compliance if they are well-performed and transparent. But to do so, they must largely concur with the post 2020 modalities and procedures.

It seems unlikely that detailed NMM provisions will be decided in Warsaw given the differing views expressed at the workshops in Bonn. COP 19 might be a better venue at which to focus on a core set of rules and a concrete work plan for their further enhancement. The establishment of such core rules would at least indicate possible future use of units generated under an NMM and help to incentivise higher ambition.

But having a reliable instrument in place for mitigation activities post 2020 calls for experience on which the instrument can be built. Pilot projects should thus be promoted as soon as the core rules have been agreed. Given prevailing price uncertainty, financing for these pilot activities would need to come from the public sphere.

Convincing other parties of the benefits of an NMM would be easier if the EU were able to provide insights into how the NMM would work in practice, i.e. through concrete efforts such as promoting pilots for sectoral crediting or trading schemes. In this regard, movement might be seen in the activities of the EU Commission to sponsor a project to introduce guidance and organise pilot activities in certain beneficiary countries (see article 'A New Generation' elsewhere in this issue).

In terms of the FVA, Warsaw should pave the way for the establishment of the accounting rules, which in turn will highlight interdependent cross-cutting issues for future ADP negotiations.

The Climate Change Secretariat has published two synthesis papers on new market mechanisms: the technical synthesis on the FVA (FCCC/TP/2013/5) and on the NMM (FCCC/TP/2013/6) are based on parties' and admitted observer organizations' submissions received between 1 January 2012 and 20 September 2013. They were presented to participants of the workshops mentioned in the article. The papers can be downloaded at
http://unfccc.int/resource/docs/2013/tp/05.pdf (FVA) and
http://unfccc.int/resource/docs/2013/tp/06.pdf (NMM).

Raising Ambition via the Carbon Market

NMM as a joint product of developed and developing countries

Dr. Silke Karcher and Thomas Forth, German Environment Ministry

In the Kyoto World, CDM and JI were established as flexible mechanisms. Their function for Annex I countries was to ease the fulfillment of emission reduction targets. However, such an approach only makes sense if and when ambitions are strong enough.

What did ambition look like in KP CP1? The overall reduction target of the Annex I countries amounted to only 5.2 percent. This was further limited to 50 percent domestic reduction on account of the supplementarity rule. Ambition was further diminished by early and late withdrawals of countries, as well as by 'hot air' and other loopholes.

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So, with hindsight, it comes as a surprise that this rather low level of ambition gave way to the creation of – and even to a short-term boom in – an international carbon market. This is a situation that can perhaps be explained by the strong expectation of rising ambition – an expectation that was not fulfilled, and one which eventually led to the collapse of the carbon market.

The purpose of the Kyoto Protocol's flexible mechanisms was twofold: To provide flexibility for Annex I countries and to use CDM investment to foster sustainable development in Non-Annex I countries. In its final report, the High Level Panel on the CDM Policy Dialogue highlighted figures that show the success of the CDM deal, with investment amounting to some USD 215 billion in developing countries, corresponding to Annex I country savings of USD 3.6 billion.

Thus, looking ahead, why supplement the (reformed) CDM with a New Market Mechanism?

Given the current and looming greenhouse gas emissions trend forecast for the next several decades, the Kyoto-style distinction between Annex I and Non-Annex I is no longer feasible. As CP2 Annex I countries account for only 14 percent of global emissions, it is evident that these countries cannot solve the climate challenge alone.

Their decreasing share of global greenhouse gas emissions does not deter from the responsibility of industrialised countries. However, the increased shares and, to a greater extent, the greenhouse gas emission projections (particularly but not only for the big emerging economies) make it clear that in the future, many countries will be forced to take action on climate change.

It is, however, both difficult and problematic to ask for ambition from others if the ambition demonstrated by the industrialised countries remains vague or too low. When comparing current EU targets with the traditionally claimed leadership role in climate policy, some serious hurdles must be overcome in the lead-up to Ban Ki Moon's 'ambition summit' in September 2014.

One of these hurdles is the accumulated internal oversupply of the EU Emissions Trading Scheme (ETS) of about two billion allowances. This needs to be addressed by cancelling a large number of allowances (the so called 'backloading' approach is no more than an interim step) and initiating structural reform to prevent similar oversupply effects in the future. Also, governments and administrations have begun the positioning process on 2030 targets. The EU needs to provide clear signals in order to encourage others to bring their domestic ambition to the table.

Ambition raiser

The principle of common but differentiated responsibilities, including the dimension of respective capabilities, is a necessary component in the success of UNFCCC-led climate negotiations, and one that calls for movement towards more ambition in a large number of countries. While industrialised countries in Europe and elsewhere should not shy away from their specific responsibilities, the capabilities and potential elsewhere must also be acknowledged.

The idea behind the NMM could be described as raising ambition jointly: On the one hand, the offsetting part of the NMM implies the need for predictable demand in buyer counties. On the other, the inherent requirements of the NMM, especially as regards upscaling, net mitigation and contributions by the implementing country, are qualitative differences when compared with the offsetting principle of the CDM. However, in an NMM approach, offsetting would not disappear altogether and sufficient demand would still need to be generated.

In other words, the complexity of the NMM requires more effort in the beginning, leading to guaranteed engagement of the investing or financing country. Each single NMM activity could serve to raise ambition if Parties accept the joint nature of the NMM approach. This is also an option for piloting activities or any prompt start regulation before 2020.

Given the rationale of joint ambition, certain standpoints might be less helpful. These include explicit no-lose targets and/or expectations of late certificate issuance at the end of a commitment period. NMM implementing activities must be made legally binding so they can mobilise the necessary resources and demonstrate reliability to the private sector.

It goes without saying that NMM would mean additional effort for developing countries. Own contributions are costly and create rights to the additional mitigation, which could be counted towards pledges or commitments. Many developing countries are not, however, in favour of this type of carbon market mechanism. And they are calling not only for raised ambition in industrialised countries, but for more demand for certificates.

Considering that the NMM brings positive effects by means of the joint efforts outlined above, the skeptical stance taken so far must be rethought. The outcome could be to develop the NMM as one instrument in the spectrum of commitments, as an option within the new agreement. Given the Paris 2015 and beyond timeline, the mechanisms negotiations must stay on track if the mechanisms are to be in place by 2020, the year the new climate agreement should enter into force.

The New Market Mechanism was formally introduced with the UNFCCC decisions taken in Durban and Doha. Modalities and procedures are the next pivotal step on the mechanisms agenda. This step can be taken in Warsaw, not least by highlighting the mechanism's joint ambition nature. Developing countries would then be in a position to question how developed countries intend to act on their own proposal given the resources they will spend on it. The piloting activities planned for the coming years provide one opportunity to show how they plan to go about it. Another would be signing up to an NMM prompt start during the international climate change talks in Paris in 2015.

A New Generation

Piloting Sectoral Market Mechanisms

Pedro Martins Barrata, get2C

It is clear that the current carbon market setup is untenable. Currently, of all major blocs, only the European Union has a functioning market. Yet even the European system is suffering from low levels of demand. Future climate action is going to require much more decisive cuts, i.e. emission caps, not only in Europe but also in the whole of Annex I and in all major economies. So existing carbon markets must have stricter targets, new carbon markets must have targets that are also strict, so as not to decrease overall ambition. Furthermore, the use of offsets from baseline-and-credit programmes such as the CDM in unconstrained jurisdictions or sectors must be used sparingly. This is not passing judgement on the mechanism itself. It is a factual conclusion that allowing the CDM to continue in its present form without having much more significant emission reduction commitments, will lead us to deviate from the 2°C goal.

Design questions for a new market mechanism

What then does the future climate regime require from new market mechanisms? How can they support achieving the ultimate goal?

On the crediting track, the new mechanism as defined in the Doha decision is required to encompass a "broad segment of the economy". The decision language was an artful compromise between those who wanted a purely sector-wide scope (with sectors as large as tier 1 of the IPCC inventory classification) and those who argued that such wide sectors would result in unbearable monitoring and even definitional complexities. In reality, this compromise implies more than anything that the new mechanism is expected to result in action within a meaningful sector that is both transformational hopefully and comprehensive. Such broad scope would allow an upscaling in crediting volumes and lower transaction costs per unit of emission reduction.

However, the issue of scope is more complex than simply ensuring broader coverage within a sector. If participation by covered agents within a "broad segment" is made voluntary, then one would normally expect a process of self-selection: those companies that would not benefit from the crediting scheme would select themselves out, whereas those who would stand most to gain (usually those with best performance) would participate in the scheme. This process could in principle negate the effect of broader coverage, and lead to increased leakage. Minimum requirements/thresholds for participation in relation to the potential set of activities covered must therefore be introduced. This implies that, unlike CDM, there may well be a role for the government in providing adequate incentives for participation in any such scheme.

One issue that is also debatable is whether the new crediting mechanism should require that all participants within the scheme meet the set threshold and that any under-attainment by one or more participants be debited from the overall calculation of emission reductions. Such "group performance" crediting implies an even greater role for a public authority as inevitably such intra-industry transfers would be untenable in a competitive environment. It is hard to see a context in which the best performing in an industry are asked to cover the shortfall of those who did not reach the thresholds.

According to the UNFCCC decisions, the new framework also needs to have a measure of "own mitigation contribution" embedded in its design. There are a variety of ways in which this contribution can be put into place. These range from devising baselines that are more conservative and ambitious compared

to "business as usual", to either discounting at source (the seller to forgo of a fixed percentage of credits) or at use (the buyer to do the same), or a combination of all three approaches.

Baselines for a new crediting mechanism would not necessarily be significantly different from existing baselines under several crediting protocols. However, as scaled-up action becomes the norm, standardisation of baselines, i.e. the use of benchmarks and default emission factors will be more widespread. From these broader baseline protocols (similar to recent developments under the CDM and the VCS) one could easily devise appropriate baselines that reflect the requirement of increased ambition.

Building on the existing infrastructure

This leads to the question to what extent we can build on the existing protocols (CDM, JI, VCS) and their infrastructure. As the "broad segment of the economy" actually covers a defined set of activities for which crediting protocols already exist, it would make sense to use them in full. As an example, CDM methodologies, especially if based upon standardised additionality and baseline protocols, could readily be used in a new crediting mechanism context.

Furthermore, the use of programmatic approaches coupled with such new protocols would go a long way to meet the requirements imposed politically in the new framework. What then is new? The requirement of own mitigation contribution, which could be easily embedded into existing methodologies or crediting protocols, and the requirement for comprehensive action within a defined "segment of the economy", which would then require some threshold for meaningful participation of covered entities/agents (most likely through some government inducement or mandate).

Limits to the old, challenges of the new

As the scope of the crediting mechanism becomes wider, and the range of policies and measures affecting emissions within that scope broadens, the existing project-based monitoring and verification protocols must be superseded by monitoring on the basis of inventory-related data, and a clearer link to national emission accounting emerges. As an example, if the threshold for a given power sector would be expressed purely in terms of tonnes of carbon equivalent per kWh, then rather than looking at facility-level data, as one would under the CDM, one would make use of national inventory data on the power sector.

However tempting it may be to look towards such "policy-based crediting" on a sector level, there are a number of reasons why these will take much longer to pursue, if ever. To start with, in most countries reliable inventory data is not available. The levels of uncertainty associated with sector-level data are orders of magnitude higher than those of project-level data. The verification system for national inventories is far from the level of rigour of either the CDM or any other crediting protocol.

Most importantly though, and the main reason why policy crediting has not been introduced to date in any meaningful way, is the difficulty to connect causally a plan or policy with emission reductions derived by it. Only now and incipient in form are there meaningful protocols (such as the Policies and Actions Standard of the GHG Protocol) attempting to assist countries in such "policy effectiveness" calculation. It is doubtful however that in the near future such protocols be made ready to be the basis of a crediting scheme with levels of uncertainty and materiality similar to those of project-based or programmatic-based mechanisms. Nevertheless, that fact alone should not lead us to desist from the attempt to achieve such "policy crediting" but rather give us a healthy scepticism of any early implementation.

Piloting sectoral market mechanisms

The EU has been a proponent of the new market mechanism under the UNFCCC for some years now. This EU stance comes from acknowledging the shortcomings of existing mechanisms but also from the need to spur increased ambition both within Europe and outside it. This increased ambition can only be achieved in a context in which sufficient tools are available and provide confidence to policymakers of the degree of success in committing to ambitious targets. As countries define their roles, commitments and engagements in the run up to 2015, it is crucial to experiment on different templates of how new carbon market mechanisms under the UNFCCC could work, and what their potential role might be in leveraging action.

This is the rationale behind the project on "piloting sectoral carbon market mechanisms" that the EC is funding and which I, together with a team of three other experts, am engaged up to 2015. The main purpose of that project is to assist developing country partners of the EU in considering and exploiting opportunities to fit their plans within the carbon market to templates that can be used to instruct future guidance of the UNFCCC on the new mechanisms.

The project relies to a great extent in our expertise to provide guidance to countries and sectors willing to exploit and simulate what the potential for either crediting or cap-and-trade could be in their sector. It does not intend to provide ready-made solutions to the different policy contexts of participating countries, but instead aims to adapt the requirements of the mechanism, as expressed in the various decisions on the mechanism itself (from Cancún to Doha), to the existing plans in developing countries. It will potentially build on existing initiatives within the Partnership for Market Readiness and other projects such as those undertaken by Ecofys and others in Tunisia.

It is important to note that while this project on its own will not lead to the development of either cap-and-trade systems or creditable emission reductions, the European Commission is actively considering a true "pilot phase" in which, at least in one case, budget would be available to bring one such project to the stage of issuance or generation of units. As this is a trial period, such units are not meant for use and would be cancelled accordingly, but such results-based payment (coupled with other similar commitment from other European authorities) may provide encouragement to those countries willing to participate in the development of new market mechanisms.

In short, sector-wide crediting and trading mechanisms will likely be a feature of the coming landscape of climate action, regardless of developments within the UNFCCC, as these have been requirements of most countries engaged anyway in carbon markets. Hopefully these new carbon market mechanisms will be undertaken using common standards and within a context of a secure accounting framework within the UNFCCC.

The EU project mentioned in the text has its own LinkedIn page:
www.linkedin.com/groups/nmm-5159692.
The project will also be presented at the Warsaw Climate Summit, on Thursday, the 14th November at 10:15, EU Pavillion.

© Ibrahim/UNFCCC 0834 Egyptian Brick Factory Project

Arguing the Point:

Is the Standardised Baselines Framework on the Right Track?

Standardising Baselines has been on the agenda of the CDM Executive Board (EB) since the Cancún Climate Summit. Since then, the EB has developed a framework for the establishment of sector-specific standardised baselines, as well as options to develop standardised baselines using an approved methodology or tool.

Greater standardisation has the potential to increase the efficiency of the CDM, lower transaction costs, and enhance transparency, consistency and predictability . It could also support access by underrepresented regions and sectors to the CDM. Yet researchers, project developers and other experts have raised concerns about the current regulation, especially on the guidelines for sector-speficic guidelines. The critics question, inter alia, the suitability of the methodological approach chosen by the EB for different sectors and project types, that the use of standardised baselines is to be voluntary and that the host country approval bodies (DNAs) are overburdened with new tasks and the associated costs.

We are proud that for this issue of Carbon Mechanisms Review, Dr. Axel Michaelowa of Zurich University / Perspectives Climate Change has agreed to sum up his criticism and exchange his suggestions with Dr. Massamba Thioyé, Manager of the Climate Change Secretariat's Standard Setting Unit.

Standardization of baselines cannot cut the Gordian Knot of the CDM

Axel Michaelowa

Axel Michaelowa combines climate change research with practice: the former at the University of Zurich, and the latter at Perspectives, a business consultancy founded in 2003. Michaelowa has cooperated in the development/application of numerous approved CDM methodologies and has been a member of the CDM Executive Board's Registration and Issuance Team (RIT) since 2006.

One of the most debated aspects of the CDM is the specification of the baseline emissions level, i.e. the emissions of a "business-as-usual" case, as well as the test whether a project is additional and thus goes beyond business-as-usual. Over the last decade, several hundred baseline methodologies as well as increasingly elaborate additionality tests have been approved by the CDM EB. Representatives of poor host countries and project developers alike have criticized the strict data requirements in most of these methodologies. In the best case, data can be collected at high cost; in the worst case they are just unavailable and thus prevent projects from happening. Therefore, initially project developers and more recently the UNFCCC Secretariat have promoted standardization of baselines. How far should this go? Can it be the panacea that overcomes the unequal distribution problem of the CDM?

Standardization can take many forms. In its simplest form, parameters that enter the baseline calculation are provided as a default. For example, one does not need to measure the daily utilization hours of an appliance but assumes a standard utilization. A more complex form is the use of a performance benchmark that defines a default baseline emission factor.

In November 2011, the EB tried to cut the Gordian Knot by agreeing on a universal performance benchmark. It was specified as the emissions factor of the best 10% of the currently installed production capacity of a sector/technology; and the best 20% for agriculture, household energy and isolated power grids. Such an approach is dangerous as it does not capture crucial context-specific factors: the vintage of technologies (brownfield vs. greenfield), location and size-specific differences in technology attractiveness, complexity of production processes and data availability. Moreover, capturing additionality through a generic benchmark is not possible as the commercial attractiveness of projects is not intrinsically linked to their performance.

Generally, data availability for benchmark calculation varies substantially among sectors. It has been very difficult to undertake road-testing exercises and the Secretariat has not published the road tests made to date. It would be highly reassuring if an international comparison of benchmark proposals could be made, also taking into account experiences from mitigation policies outside of the CDM.

As reaction to severe criticism of the universal benchmark approach, the Secretariat now proposes to disaggregate the baseline benchmark according to technology vintage, size and other key parameters, but leaves the exact disaggregation to the DNA submitting the baseline proposal. Still, it proposes a generic additionality benchmark: if unit production cost is more expensive than the marginal production cost at 30% of output in the sector, the project is deemed additional. There is no underlying explanation for the choice of that benchmark.

Benchmarks do make sense for baseline determination of greenfield projects if the level of disaggregation is chosen correctly. Additionality testing through benchmarks is unlikely to be robust given the different shapes in the performance distribution curve according to sectors and rapid changes in cost of various inputs that might lead to rapid changes in the distribution curve. While the new Secretariat proposal wants to allow the EB to reduce baseline validity in case of high sector growth, rapid technology development and high variability of baseline emission factors, it also wants to prolong the validity if an autonomous improvement factor is included. Nothing in the document discusses the relationship between the stringency of the improvement factor and the validity period; it is likely that strong sectoral differences exist. Also, an ad hoc, ex post shortening of the validity of a standardized baseline would significantly impact on in-

vestor confidence as well as willingness of DNAs to submit standardized baselines.

Generally, a key challenge for baseline standardization is the responsibility of the DNA for data collection and update. While making life easier for project developers, DNAs will incur substantial costs for data collection and definition of sub-sectors. Having supported a DNA in submission of one of the first approved standardized baselines, I sincerely doubt that a significant share of DNAs will be able to handle this task unless they get substantial external support. It will be important to get a clearer indication of the costs of data collection that might be a key obstacle to development of standardized baselines, especially in a time of subdued CER prices.

It is no surprise that over the last two years the EB has been unable to agree on the revision of the Guidelines for development of standardized baselines given the problems that still remain with the Gordian Knot benchmark approach. Given that the Secretariat wants the CDM to provide guidance for new market mechanisms and performance-oriented climate finance, it should reduce its ambition and check the existing methodologies for instances where default parameters can be introduced. Additionality benchmarks should only be applied for homogeneous sectors where there is a clear correlation between performance and project cost. The approach for baseline standardization for modal split changes in transportation proposed by the Secretariat is a good example of the direction that should be followed: it specifies default parameters where appropriate while not attempting to find a "Gordian Knot" solution. But all approaches face a reality check in times of a hibernating CDM market - which DNAs will actually be willing to submit standardized baselines?

The EB's approach does take into account the specificities of the sectors.

Massamba Thioyé

I think it will clarify and aid the debate if we separate the consideration of the following two issues: (1) Whether or not the introduction of standardized baselines as defined in decision 3 CMP.6 add value? (2) Whether the approach taken by the CDM EB to operationalize the CMP decision on standardized baselines is the right one?

Massamba Thioyé, PhD, manages the Standard Setting Unit of the Sustainable Development Mechanisms Programme of the UNFCCC Secretariat. He is a graduate process engineer and holds a PhD on Energy.

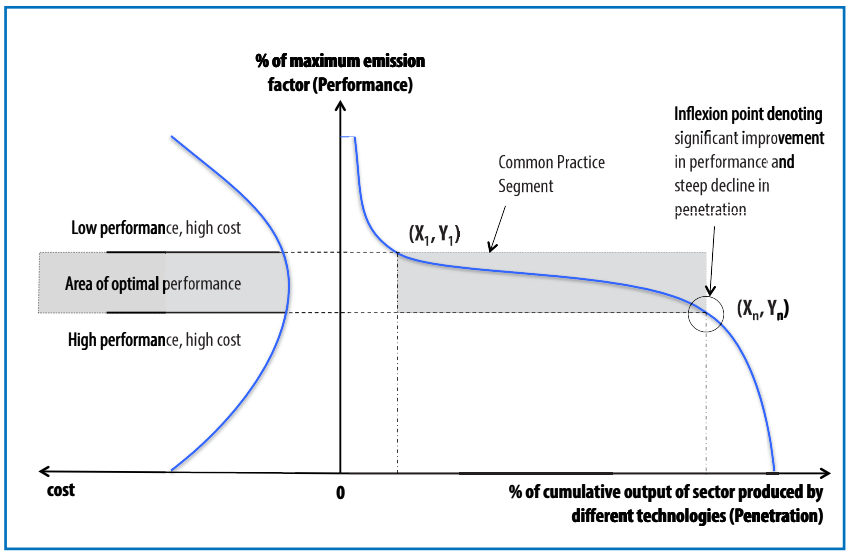
The introduction of standardized baselines is a mandate from the CMP, responding to demands from the CDM stakeholders, requesting that the mechanism should be improving objectivity and predictability, enhancing cost-effectiveness, involving less complexity for the users and boosting scalability, while continuing to ensure environmental integrity. To address this challenge, the CMP decided to further standardize some of the CDM requirements by narrowing down their applicability. Unlike the CDM methodologies globally applicable, a standard-ized baseline can be country specific.

The Board decided that the standardization should be conducted in a way that (i) identifies where cost and complexity reside in the development and use of the CDM standards and (ii) shifts them up-front for the regulatory body to handle them. Project developers are no more requested to identify the baseline and demonstrate additionality; the regulatory body will do it. This allows the project developers and the verifiers to enjoy enhanced cost effectiveness, simplicity, objectivity and predictability of the mechanism. The Board opted for standardized baselines constituted of performance benchmark and positive lists of technology/fuel/feedstocks for additionality demonstration. The approach taken by the Board is ground-breaking and constitutes an innovation in the sense that it addresses most of the issues identified in the so far existing approaches without generating new issues. It combines performance, penetration rate and costs/barriers all in one.

The issues addressed include:

- The difficulty to (i) ensure that the list of credible and realistic alternatives to the CDM project is exhaustive and (ii) establish objective criteria for demonstration of access or not to an alternative;
- A precise definition of technology is crucial for penetration rate but challenging, particularly if we want to qualify facilities in the positive list. The Board approach combining penetration rate with performance addresses this issue. This approach is not based on the penetration of a specific technology but rather on the penetration of technologies with performance in a given range;
- The occurrence of new circumstances (e.g. large amount of Natural Gas are discovered and are available at attractive cost) cannot be addressed by the penetration rate alone. The Board approach combining penetration rate and financial attractiveness addresses it;
- Where to put the threshold if a performance benchmark is used alone? Many other programmes define it arbitrarily. The pioneering approach of the Board combining performance benchmark, penetration rate and costs/barriers allows for more objective criteria to set country and sector specific threshold as shown by the figure below;
- A performance benchmark alone does not work for renewable energy.

The figure below illustrates how Performance, Penetration and Cost may be combined:



How far should the Standardized Baselines go? I would say as far as possible, based on value added analysis. Where there is room for further standardization and where this creates substantial value addition as compared to the effort, the regulatory body should take advantage of the opportunity. It may be that the approach taken by the Board on Standardized Baselines will not address all of the CDM issues, but it will definitely make the mechanism more objective, more predictable, more cost effective and simpler to use.

The approach of the CDM EB departs from the approach of universal performance benchmarks taken by other programmes. The current default thresholds are transitional measures taken by the Board to prompt start the implementation of the CMP decision on standardized baselines. Developing guidelines for sector and country specific thresholds is under progress and could be considered by the Board in early 2014.

Should we have different standardized baselines for old and recent installations, or should we aggregate all the facilities of a sector and apply to them one standardized baseline? The Board opted for the sector as the default level of aggregation. If old and new plants are covered by one single standardized baseline, the old plants will hardly qualify through the additionality testing and the new plants also will not be over-credited. The performance benchmark will fall within the performance of the old plants only if they are more widely penetrated and are more financially attractive, but then they truly represent the baseline. On the contrary, further disaggregation could have the negative impact of making additional old plants that would not be additional under broader aggregation and penalizing new plants with a baseline that is too stringent, in case the most attractive and most penetrated plant of the sector is an old plant.

This is why the Board recommends as a first option the whole sector as aggregation level but offers flexibility to DNAs for further disaggregation if justified. The disaggregation will be assessed on a case by case basis. The disaggregation rules should not be too prescriptive because the right level of aggregation is country and sector specific.

About the road testing, it is to be conducted with real data from standardized baselines

submitted bottom-up, but we are also working with professional organizations such as the Cement Sustainability Initiative (CSI) in order to refine the approach using data from the cement sector of different countries. We also have close working relations on standardized approaches with other standard setting bodies supporting other programmes.

As mentioned above, the Board right from the beginning chooses not to follow an approach of universal benchmark and decided to develop guidelines for sector and country-specific thresholds. Also, the additionality benchmark is not generic. The threshold to be eligible for the positive list is proposed to be sector specific. Once a technology/fuel/feedstock meets the sector specific criteria of performance/penetration rate, then it is checked on top of that, if it is less attractive than technologies contributing at least for the production of 30% of the output of the sector. The 30% was proposed to ensure that we are being sufficiently conservative.

On the update of the standardized baselines, a combination of an ex ante model for the improvement factor and ex post adjustment at the end of the validity period will be used. The improvement factor addresses the change of the baselines during a crediting period for a given project. The update of the standardized baselines at the end of the validity period ensures that new projects will use an updated baseline. A change in the validity period of the standardized baselines or a change in the improvement factor in updated version of standardized baseline will not impact existing projects but only new projects. Existing projects with multiple crediting periods will renew their baselines only at the renewal of their crediting period using the latest version of the standardized baselines. This ensures predictability.

Yes, sector differences are anticipated. This is why the validity of the standardized baseline as well as the improvement factor is sector specific.

The issue of availability and quality of data is not specific to the approach used by the Board for standardized baselines. It is the trade-off for enhanced objectivity. Furthermore, any development strategy for a sector will require the data CDM needs for the development of the standardized baselines. If the CDM can help developing countries establish good quality databases, it will contribute to their sustainable development. This is why collaboration with other international institutions and cooperation with agencies working on development issues to support where possible the collection and processing of data is very important.

To prevent that the requirements on data quality becomes an obstacle for the participation of LDCs to the mechanism, we plan to work in 2014 on introducing an uncertainty calculation that allows accommodating the use of data that do not meet the requirements of the Qa/Qc guidelines. The approach is based on the translation of qualitative deviation from the requirements (e.g. data not meeting the requirement of being current) into quantitative uncertainty and to take into account this uncertainty in setting the performance benchmark.

The secretariat is not aiming at providing guidance for new market mechanisms and performance-oriented climate finance. This is the CDM EB that would like to build standardized baselines on solid foundations, including a strong theoretical basis that ensures consistency and comparability. Now it is clear that new and emerging mechanisms will be able to build on such robust foundations.

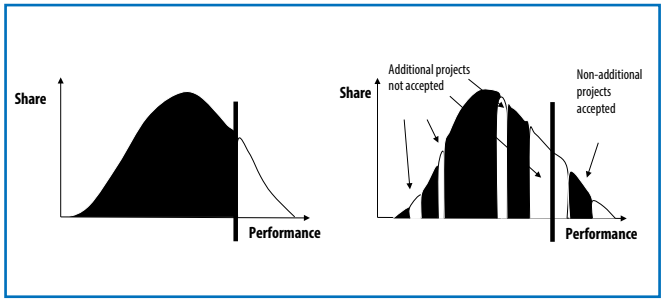
To conclude, I must say that I still do not understand why some of the CDM experts argue against the approach taken by the CDM EB on the basis that it is too broad a framework and it should rather consider a sector specific approach for the development of standards for the setting of standardized baselines? Actually, the approach of the CDM EB on standardized baselines takes very much into account the specificities of the sectors. The framework includes general rules that are applicable to the development of standardized baselines, independent of the sectors they are covering (to the exception of transport and Afforestation/Reforestation sectors). These are for example, the requirements to use a Performance, Penetration and costs/barriers approach in the procedure that set the thresholds, the rules related to the quality of data, the procedure for the determination of the validity of the standardized baselines. This ensures consistency and comparability. But the thresholds, the periods of validity of standardized baselines, the levels of aggregation are sector and country specific. This makes sense, because the definitions of additionality and baseline in the CDM Modalities & Procedures (M&P) are not sector specific and standardized baselines are about baselines and additionality, the additionality tool and the combined tool are not sector specific and baseline and additionality are the two sides of the same coin.

Axel Michaelowa

Standardization: yes, but not at the expense of environmental integrity!

All reasons underpinning the requests for standardization of baselines invoked by Massamba are perfectly valid. The big challenge is how to safeguard environmental integrity, and this concern is shared by a number of baseline methodology experts. In my view, it should be the most important criterion and should determine the limits of standardization. Any baseline standardization approach which is doubtful in its environmental integrity will lead to the death of the CDM, given its still rather tattered reputation in that respect, especially among NGOs and in the US. While it is possible to introduce conservative default parameters for key elements of baselines and thus retain environmental integrity, ensuring the environmental integrity of a highly aggregated benchmark that also covers additionality is a highly challenging task. Addressing additionality with a performance benchmark is based on the assumption that all activities with a performance below the benchmark level are business-as-usual while those with a performance above the benchmark are mobilized by the CER revenue (left panel in the figure below). In the reality of most sectors, there is no direct link between performance and additionality – some low performing projects are not business-as-usual ones, whereas some well-performing ones belong to business as usual. For example, in the Indian cement and steel sector there are very high energy efficiencies but also very low ones among business as usual projects.

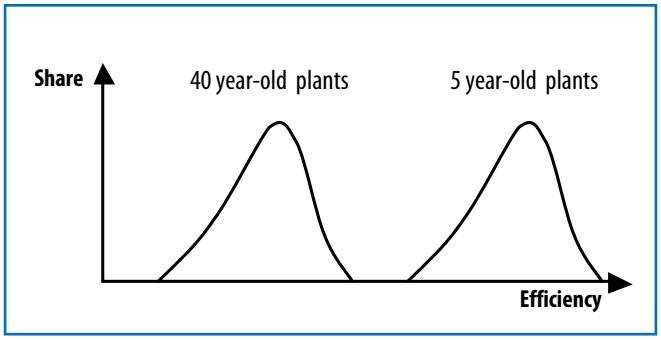
The assumption underlying performance benchmarking (left) and the murky reality that makes benchmarking for additionality difficult (right)



Notes: Black area: business-as-usual projects, white area: additional projects. Vertical bar: benchmark

I agree with Massamba that the Secretariat's approach combining penetration rates and costs is more transparent than benchmarking done in other contexts. However, many questions remain: Is the definition of the "common practice segment" consistent with the distribution of non-additional and additional activities across the performance distribution? Is the cost curve really having one area of optimal performance? Does it make sense to lump old and new vintages into one benchmark?

Regarding the latter question, we may have a situation as shown in the figure below:



Lumping these vintages together in one mixed benchmark will inevitably lead to an outcome that will either not safeguard environmental integrity or not generate credits for improvement of old plants even if this is nicely additional.Here, we would need much more empirical research before Massamba's statement that sector-level aggregation is more appropriate than vintage-specific differentiation is vindicated.

It is surprising that Massamba states that the Secretariat did not want to go a universal benchmark route. Why did the Secretariat then submit a universal benchmark for the EB in November 2011? It could have tried instead to focus on the most promising sectors for benchmarking, building on the work of the Meth Panel regarding the CSI cement sector benchmark methodology proposal. But this methodology proposal was ignominiously rejected, showing the difficulties once a benchmark level is to be agreed upon. I thus fear that case-by case decisions on aggregation levels for benchmarking and the ac-

tual benchmark levels will suffer the same fate. In order to check the robustness of the Secretariat's approach, it would be important to see the shapes of the performance distribution curves for the different sectors road-tested by the Secretariat, as well as the distribution of output unit costs. Then baseline experts and the Secretariat can jointly work to achieve an outcome that safeguards environmental integrity.

An absolutely critical question is why the Secretariat proposed a universal cost benchmark defined by 30% of sectoral output. How does the Secretariat ensure that this 30% is equally conservative for all sectors in question? I am looking forward to the evidence provided by the Secretariat to bolster this assertion. Equally, joint work by experts and Secretariat can bring us forward there.

Regarding data availability, I highly support the Secretariat's efforts to support DNAs in getting access to data and to apply robust uncertainty approaches in case of use of less robust data sources.

Eventually, standardization which is environmentally credible can ensure a bright future for the CDM and new market mechanisms. Done badly, it can seal the fate of the mechanisms. Thus everybody interested in the success of the mechanisms should work together to ensure a robust standardization approach.

Massamba Thioyé

The framework does ensure environmental integrity by combining three screening tools at two quality gates.

The first quality gate uses performance combined with penetration rate as screening tools. It separates technologies/fuels/feed stocks with low performance and high penetration rates from technologies/fuels/ feed stocks with high performance and low penetration. The point of separation is the performance benchmark. This quality gate establishes that the technologies/fuels/feed stocks in the positive list are not common practices, whereas technologies/fuels/ feed stocks with performance below the performance benchmark are well penetrated, accessible to project developers and cannot qualify for the positive list. This deviates from Axel's model in the sense that it does not allow for the white islets within the black area below the performance benchmark. This is perfectly in line with the definition of additionality in the CDM M&P: a project activity is additional if it emits less than the baseline. The testing of additionality is all about identification of a baseline.

Now what about the black islets in the white area above the performance benchmark? The performance benchmark approaches proposed so far are unable to filter them. The Board's approach does however. A technology/fuel/feed stock with a higher performance than the performance benchmark and with a low penetration rate will qualify to be in the positive list if and only if (i) it is less attractive than technologies/fuels/ feed stocks of performance below the performance benchmark and contributing cumulatively to the production of the output covered by the standardized baseline up to at least 30% or (ii) it faces barriers. The total cost of the technology/fuel/feed stock in the positive list is not compared with a cost benchmark defined by 30% of sectoral output, as mentioned by Axel. The DNAs have to select some of the technologies/fuels/feed stocks in the country with a performance below the performance benchmark, and contributing to the production of the output for at least 30% and demonstrate that they are more financially attractive than those in the positive list. This second quality gate of cost/barrier screening combined with the first one prevents non-additional projects, as per the definition of additionality in the CDM M&P, to be at the right side of the performance benchmark. It enhances the environmental integrity by requiring to establish that more attractive and less efficient alternatives are truly available in the country.

Although the definition of additionality in the CDM M&P does not refer to low financial attractiveness, it is often equated with additionality. This is not always correct. While it is commonly accepted that financial attractiveness is important for additionality testing, we consider it insufficient in some cases. To further ensure environmental integrity, it should be combined where possible with performance and penetration rates to test additionality, as is the case with the approach that the Board adopted on standardized baselines. Because this approach

bs/TÜV Süd AG

further ensures environmental integrity and it is a more objective and predictable approach, it could and should be applied to the extent possible, where it creates substantial value addition for the users of the mechanism, as compared to the effort it requires from the regulatory body.

The cost curve can have several minima. In this case, further disaggregation by DNAs could be authorized. It happens when the standardized baseline covers an entire sector such as the power sector with different technologies using different fuels. The cost curve could then have several minima at different performances to reflect the different fuels used. Corresponding to each of these minima, the performance/penetration curve will show "common practice segments".

Let's apply the framework for standardized baselines to the example provided by Axel. If we have a "common practice segment" within the "5 year old plants", then the performance benchmark will not be affected by the "40 year old plants". If we do not have a "common practice segment" covering 50% of the output within the "5 year old plants", then the default threshold of 90% applies. If each type of plant contributes for 50% of the output produced, the performance benchmark will be the lowest performance of the more efficient 5 year old plants contributing cumulatively to the production of 20% of the output of this type of plant. The performance screening disqualifies, irrespective of their financial attractiveness, all the 40 year old plants and the less efficient 5 year old plants contributing to the production of 80% of their output. The remaining most efficient 5 year old plants contributing to the production of 20% of the output shall be less attractive than plants with performance below the performance benchmark and contributing in aggregate to the production of 30% of the total output. Because 5 year old plants are expected to be more financially attractive than the 40 year old plants, the screening based on financial attractiveness is more difficult to pass for the 5 year old plants if they are aggregated with the 40 year old plants.

A universal threshold for the determination of the performance benchmark cannot reflect the diversity of the sector and the countries. This has consistently been our view since the beginning. However, we preferred to prompt start the implementation of the CMP decision on standardized baselines using transitional default thresholds and to learn from experience with the view to prepare the guidelines for the development of country and sector specific thresholds.

Finally, the secretariat is very open to collaborate on these complex issues with the Methodology Panel and the Small Scale working group and all experts within the CDM and outside the CDM.

The Indian Example

Can Domestic Climate Policies Support Carbon Market Transition?

India is growing rapidly. The country represented 8% of the increase in global energy-related CO_2 emissions between 2000 and 2010[1]. The Indian portfolio of climate related policies is continuously growing from the National Action Plan on Climate Change (NAPCC) launched in June 2008 to an Umbrella scheme 'Climate Change Action Programme' in July 2013. The question however remains, can these policies save the dwindling Carbon Market, which has been an important instrument to mitigate GHG emissions, by providing transitory support? The arguments of international equity and solidarity with developing countries have dominated the debate so far, but despite this rhetoric Cities and States in India are becoming more and more engaged in local action plans on both mitigation and adaptation. Some of these activities are analysed in the following.

National and State Action Plans on Climate Change (NAPCC). In 2008, India launched NAPCC outlining existing and proposed actions across eight national priority areas. Known as 'missions', these focus on: solar power, energy efficiency, sustainable habitat, water, the Himalayan ecosystem, afforestation, sustainable agriculture, and strategic knowledge for climate change. These Missions have ambitious goals which will help India address both climate change mitigation and adaptation. In August 2009, the Central Government urged all the states to develop their State Action Plan on Climate Change (SAPCC) consistent with the objectives of the NAPCC. As of now 22 SAPCCs were developed.

Renewable Energy Certificates (REC). In November 2010, India launched a Renewable Energy Certificate (REC) trading system with the primary objective to promote renewable energy even in regions that have low potential for renewable power generation. REC is a market based instrument which obliges entities covered by the scheme to either purchase renewable energy or purchase RECs to meet their Renewable Purchase Obligations set by their respective State Governments. The system covers distribution licensees, captive consumers and open access electricity users. There are two types of RECs – Solar and Non Solar. One REC will be equivalent to 1 MWh of electricity supplied to the grid. However, this system is currently burdened by a severe oversupply.

Perform Achieve and Trade (PAT). In 2012, the Federal Government started an innovative market based mechanism to enhance cost effectiveness of improvements in energy efficiency in energy-intensive large industries, facilitated through certification of energy savings that could be traded. The Ministry of Power (MoP) has notified industrial units and further energy consumers in nine industrial sectors as Designated Consumers. The savings due to this Perform, Achieve and Trade (PAT) mechanism are expected to amount to 26.21 million tonnes of GHG emissions, resulting in expected avoided capacity addition of 5263 MW, by 478 identified designated consumers in first cycle from 2012-15 [2]. An investment of about 3.6 billion Euro is expected to be made by the industry.

National Clean Energy Fund (NCEF). The Government of India announced in its Financial Budget 2010-11 the launch of the

[1] The Policy Climate: www.ClimatePolicyInitiative.org
[2] http://agneyablog.wordpress.com/2011/07/01/perform-achieve-and-trade-pat-under-the-nmeee/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National Clean Energy Fund (NCEF), as a major step in India's quest for energy security and support of commercialisation of clean-energy technologies to reduce dependence on fossil-fuels. The fund is being raised on the basis of the "polluter pays" principle, wherein a clean tax of 60 Euro cents (=INR 50) is levied on each tonne of coal mined or imported. The fund will be used to support research and innovative projects in clean energy technologies. The government targets to collect at least 1.2 billion Euro under the fund by 2015. These could be used, inter alia, for supporting projects in the carbon market which deal with clean energy technologies reducing dependence on fossil fuels.

Companies Bill 2013. The Government of India introduced Corporate Social Responsibility (CSR) Obligations under the Companies Bill, 2013. The new law makes CSR spending compulsory for companies having a net worth of 60.3 Million Euros[3] or more, or Turnover of 120.6 Million Euros or more or Net profit of 0.6 Million Euros or more will have to mandatorily spend 2% of their preceding three years average net profit for CSR activities. As per the initial assessment of the Ministry of Corporate Affairs, the scheme will result in spending of about 1.8 - 2.4 billion Euro per year in various projects such as environment, skill development, water and sanitation.

India Climate Policy and Business Conclave 2013

GIZ together with the Federation of Indian Chambers of Commerce and Industry (FICCI) and the World Bank jointly organized the "India Climate Policy & Business Conclave" in September 18-20 2013, with the aim to provide a platform for discussion on climate policy and business involvement. This year's conclave focused on corporate initiatives, global case studies and successful projects that have galvanized action at the industry and corporate levels. About 250 Experts from public and private sector as well as research and civil society used the event to elaborate on a way forward to save the carbon market and business involvement in climate change mitigation in India. For more information please visit www.indiacarbonconclave.com

[3] Conversion rate used: 1 Euro = 83 INR

Conclusion

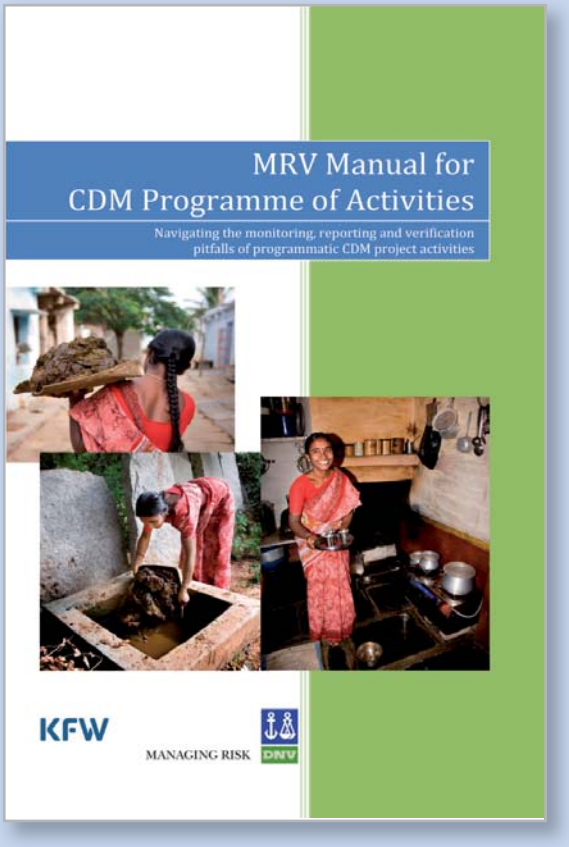
It will be important to find synergies to support the carbon market and reinforce the private sector confidence in market based climate policy mechanisms. The REC- and PAT-Schemes are first attempts to create national markets. Similar attempts should be made in additional sectors and at Federal level. Emission trading schemes addressing GHG emission reduction could be developed as it is currently attempted in other developing countries, cp. article 'Fragmentation versus Coordination' elsewhere in this issue. CSR obligations in the Companies Bill 2013 and the National Clean Energy Fund can also provide transitory support to the CDM projects by using CSR revenue and the NCEF funds to purchase carbon credits and prevent projects from closing down.

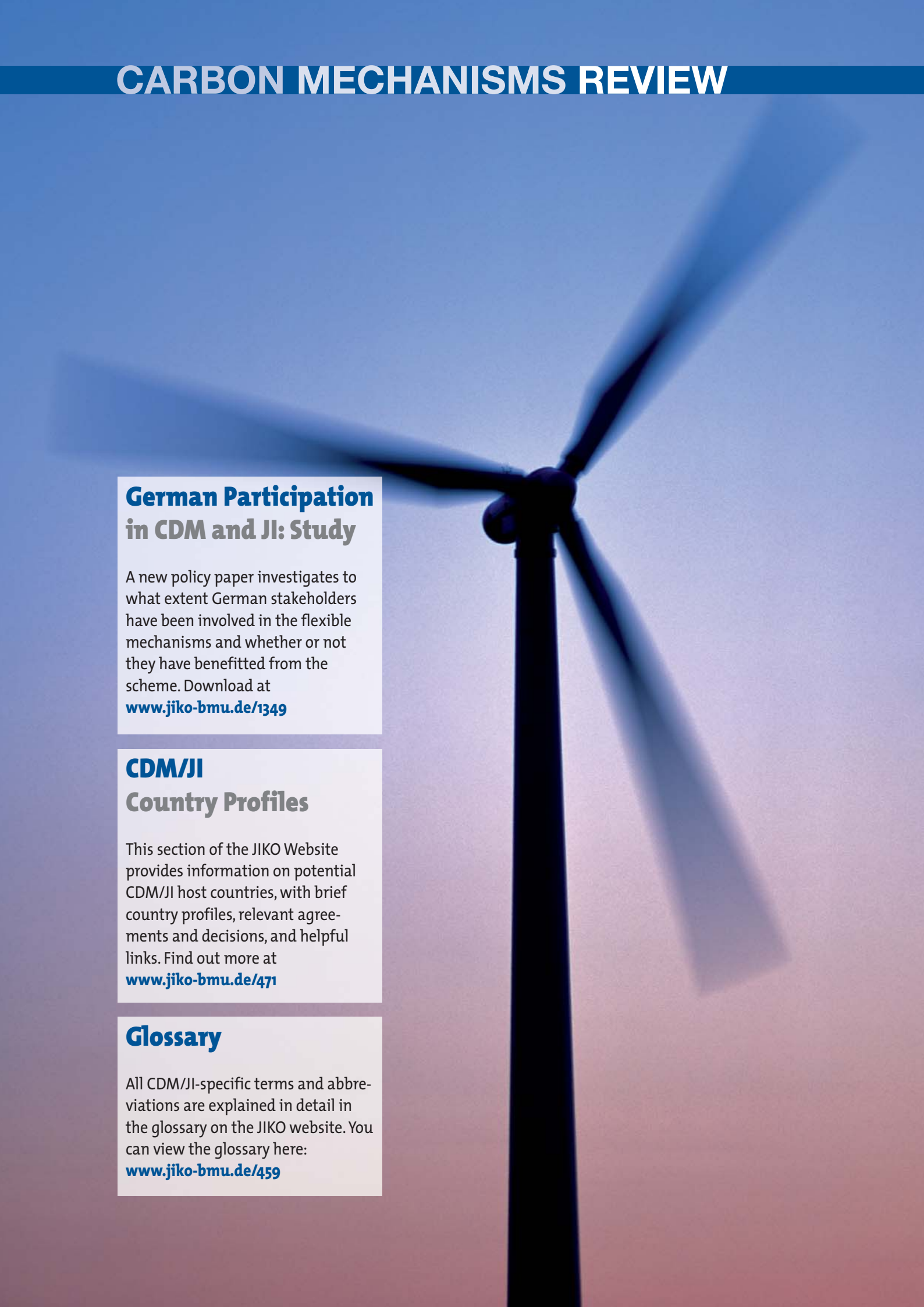
GIZ India is trying to bridge the transitioning carbon market space through its activities supported by the German Environment Ministry. GIZ is carrying out a study 'Carbon Market Roadmap in India 2020 – Looking Back on CDM and Looking Ahead' with the objective of analyzing sustainable development impacts of CDM projects in the country and proposing short, medium and long term activities for the carbon market in India. The study also proposes how the domestic policy interventions can provide transitory support to CDM projects. The draft report is in the final stage of completion and is with the Government of India waiting to get endorsed by them before going public with the study.

There is an advantage for India to continue to utilize the existing CDM capacity and knowledge to further promote domestic emission reduction activities. Creating a domestic carbon market for CERs generated or to be generated in India could cater to needs of achieving cost-effective energy security, GHG-mitigation and sustainable development. Hence it makes sense for the Indian government to think on these lines and plan ahead. There are some questions that decision makers need to find answers to like 'Can we strike a new more effective climate deal in 2015?', 'Can the world save the decade old CDM?' and most importantly 'Can the private sector confidence be restored in market based instruments for GHG mitigation?' There is a saying "Fool me once, shame on you. Fool me twice, shame on me", which summarizes the private sector outlook in India. Climate Leaders will have to strike a good deal with deeper targets, sooner than later, lest we lose the experience, expertise and knowledge.

New MRV Manual for CDM Programmes of Activities

A new manual provides hands-on information how to best navigate the monitoring, reporting and verification pitfalls of programmatic CDM project activities. It was developed by auditing firm DNV on behalf of KfW. Download at www.kfw-entwicklungsbank.de





German Participation in CDM and JI: Study

A new policy paper investigates to what extent German stakeholders have been involved in the flexible mechanisms and whether or not they have benefitted from the scheme. Download at **www.jiko-bmu.de/1349**

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**