

# CARBON MECHANISMS REVIEW

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# Solidarity and Efficiency

A Door to Pan-EU Market  
Mechanisms

**Analysis:**

The EU INDC and the  
carbon markets

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Photo: RWE Pressebild

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## Dear Reader!

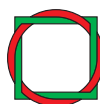
The carbon markets have been brought almost to a standstill. Lack of demand coupled with uncertainty regarding the role the markets will play in a new climate change regime render many of the carbon reduction projects already underway unviable.

In efforts to secure the climate change contribution these projects are expected to make, institutional buyers are rising to the fore. This issue of Carbon Market Review looks at two initiatives designed to support projects at risk. The first sees the Norwegian government buying certificates from projects whose threatened status it measures using specific criteria (see the article entitled Buyers Counter Crisis). In the second, the World Bank focuses on methane reduction projects and is set to hold an auction in June backed by funding from donors in Europe and the US (see World Bank announces selection criteria for CER auctions towards the back of the magazine).

While these activities can in no way remedy the market crisis, they highlight industrialised countries' interest in the use of market-based instruments in combating climate change. Whether that interest can be transferred to the new climate change agreement will be revealed at the end of the year.

On behalf of the entire CMR team, I wish you an interesting and informative read.

*Christof Arens*



**Wuppertal Institute**  
for Climate, Environment  
and Energy

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# Solidarity and Efficiency

## EU Effort Sharing: A door to flexibility and market mechanisms

by Silke Karcher, BMUB

In October 2014, the European Council set out the basic principles for and quantitative cornerstones of EU climate change policy for the period 2020 to 2030 (see CMR 4/2014). As in the period 2013 to 2020, reductions in sectors not covered by the EU Emissions Trading Scheme (ETS) are largely to be shared among the member states according to a GDP per capita formula. This approach does not necessarily lead to a cost-effective distribution of emission reductions. There exists considerable, low-cost potential in poorer countries, while richer member states like Denmark and Luxembourg, have already introduced a whole range of reduction measures, especially in the efficiency sector. This means that the remaining potential can only be tapped at higher costs than those involved in reduction activities in, for example, Romania and Bulgaria. This is also evident in the potential analysis contained in the EU Commission's Impact Assessment, where a cost-effective distribution of reductions was calculated which would lead to greater reductions in poorer countries than would a GDP-based distribution.

### Sign of solidarity

Burdening the less-wealthy EU member states with especially high reduction obligations would be politically unthinkable. In many cases, the reductions they are already required to achieve involve some considerable effort. Expecting more from the richer states (in addition to other solidarity mechanisms in the overall climate package) would thus rightly indicate that there is no alternative.

### Matching funds with potential

Nonetheless, it would be a less than satisfactory move to invest a lot of money in improving the efficiency of what are already comparatively efficient systems in richer member states like Denmark and Germany, while at the same time investing less in poorer countries such as Romania. This would widen the efficiency gap even further and leave it up to the Structural Fund to close it again. Ingeniously designed flexibility may help here.

Up to now, meaning in the period 2013 to 2020, flexibility has been allowed as follows:

- 1) Banking and borrowing between specific years in a certain scope
- 2) Limited use of international certificates (CERs/ERUs)
- 3) Bilateral transfer of AEOUs, the emission allowances under the Effort Sharing Decision (ESD).

Project-based mechanisms were missing from this list. Pan-EU project-based mechanisms will only be possible at purely national level in the period 2013 to 2020. Project-based mechanisms within the EU are set out under the ETS Directive (Article 24a) in principle and are usable in theory under the ESD for the ESD sectors, but this option was never operationalised and so was never truly available.



*East-West Divide: Market mechanisms can assist the transfer of efficient technology. Huge potential is seen in the construction industries in Eastern and Central Europe.*

Up to now, the available options for AEA exchange have not been used even though in the early years of that period, all member states were AEA-rich. By way of contrast, in the period 2021 to 2030, real effort will be needed in all countries if the targets are to be achieved. Flexibility will then become economically attractive.

The big opportunity here is to make climate change mitigation cheaper and use climate change investment to write the next chapter of the EU success story – sharing out prosperity. Money, knowledge and technology must be used to tap the lower-cost potential. This brings investment and innovation to economically weaker regions, while opening up opportunities for investment and markets for companies in more efficient member states. In this way, climate change mitigation can again be seen as more of a business opportunity – and as a tool for concrete support, with a direct, positive impact for local populations. Warmer homes, secure jobs and stronger regional economies make solidarity in the EU accessible. And as a result, perhaps, the image of climate change policy can be improved in places where this is still urgently needed.

## Action needed

The flexible mechanisms must be designed in such a way that this promise can be fulfilled. In the lead-up to the October Council, Germany and others called for improved flexibility, for example by creating a trading platform for project mechanisms. In the meantime, there are calls from the member states for a certain quantity of AEAs to be auctioned annually to promote market liquidity – some are even talking about the need for a functioning ESD market. Although concrete rules have not yet been discussed, there is broad consensus when it comes to integrating flexibility and market elements/market mechanisms into the ESD.

Proposals for a fitting design of the flexibility mechanisms will take time to draw up. It is important that they meet the following criteria:

- **Transparency and Integrity:** Flexibility must not mean a hollowing out of ambition. All provisions must ensure that double counting is avoided. And there must be no attempt to use flexibility as a smokescreen for feeding hot air into the system
- **Manageability, broad access, private sector involvement:** Flexibility which relies solely on bilateral agreements between member states

would appear too cumbersome. Experience gained with the CDM has shown private sector potential in climate change mitigation to be a business opportunity. This can be repeated within the EU, but project-based mechanisms are needed to do so. Policymakers must thus create the conditions and the framework to allow the private sector to unleash its full potential.

- **State controls, no cherry-picking by private industry at the cost of the member states:** As important as the private sector role may be, that of state controls is equally so. Because all member states must make considerable effort, if project-based mechanisms are used it must be ensured that each member state is in a position to prevent cherry picking. Each member state must be able to decide which areas they leave to the private sector, meaning which projects they make eligible for the project-based mechanisms. The states must be able to prevent private companies from selling cheap potential abroad while state funding programmes are used to leverage higher-cost potential.

- **Visibility:** To reap the intangible dividends as well, the climate change mitigation-related benefits to be had from flexibility must be made visible for businesses, private individuals and countries.

Many technical issues must still be addressed. For example, how much centralised supervision is needed beyond the registration process? The situation is somewhat clearer regarding the framework to be staked out and covered by the necessary regulations.

The debate on implementation starts now. At some point in the foreseeable future, the EU Commission will issue calls for tender for the impact assessment on the rules for the non-ETS sectors.

Concrete proposals can be expected at the start of 2016. The time has thus come to develop concrete ideas and feed them into the debate. The Climate Mechanisms Review will continue to report on related developments.

## The EU INDC

# Not enough domestically, nothing (yet) internationally

by Thomas Forth

In October 2014, the EU set out its climate change target to reduce emissions across its member states by 40 percent by 2030. When looked at internationally, this is quite a pledge and one that other countries should ideally be able to match. The two words that were placed before the target, namely “at least”, sparked hopes for an even more ambitious aim – use

of the Market Mechanisms on top of the EU target, which in itself is not enough in climate policy terms.

The EU Council of 6 March was unable to fulfil these hopes. The EU continues to take a reserved stance and in doing so forgoes the opportunity to send out a clear message for Paris and to encourage other countries to make more of an effort in climate change



*Bias towards home-based effort: The EU favours emission reductions on home ground. A coal-fired power station in Neurath, Germany.*

mitigation. Whether this is a clever negotiation tactic or whether the EU, with its 28 member states, is currently not in a position to resume its earlier leadership role will remain to be seen until 'at least' the climate change talks in Paris.

## What the EU decision means

As regards the climate change conference in Paris, it would be wise not to overrate the EU's most recent decision. There is still time to tighten up the target in the lead up to the Paris talks. The EU decision itself explicitly contains the option for increased ambition within the overall climate change talks. In the wording of its decision, the EU makes it clear that increased ambition through the use of international certificates is certainly an option.

Nonetheless, the question still arises, and not just within the EU, as to what has prevented the EU from putting a proposal forward in the negotiations to date. And why should EU policy interests allow for

greater climate change mitigation in the near future?

When it comes to defining the term 'at least', there are several options available in addition to the Market Mechanisms.

## Where the Market Mechanisms need to be in time for the Paris talks

Use of the Market Mechanisms is not a foregone conclusion. Bearing in mind the EU reform goals with the Market Mechanisms, the EU has targets which have either yet to find consensus in the negotiations or for which no compromise has been reached. The key issues are the substantial reform of the CDM modalities and procedures and the development of a new market mechanism that allows up-scaling of emission reduction measures. Advancement in these issues, the possibility of an agreement and the neces-

sary associated decisions being produced in Paris would make it far easier for the EU to generate new demand for international certificates.

### Paris shopping list

Expectations must remain realistic. After many years of climate change debate and negotiation, Paris is unlikely to produce decisions on specific mechanisms. The new quality to be achieved with the mechanisms should be laid down both in the climate change agreement and in a parallel conference decision that sets out the issues, tasks and responsibilities for the post-Paris period. Looking back to the situation that surrounded the Marrakesh Accords, it would be good if that process could be better structured in advance of the Paris talks.

Progress is, however, also possible outside the climate change negotiations. The willingness of host countries to integrate their ability to use the Market Mechanisms into their national policy strategies is a fitting way in which to illustrate how those mechanisms can contribute to real, robust reductions and support host countries' own contributions to the global climate change effort.

### Intensified efforts before Paris and after

In terms of the New Market Mechanisms, one of the biggest statements to come out of the EU came right before Bali: that the reform of the Market Mechanisms would lead to a greater role for national governments. If this is a key reform objective, intensifying outreach activities between the UNFCCC negotiation partners would be the key to achieving a consensus. But this can only be achieved if the focus is placed not on negotiation papers, but on the question of how such mechanisms can be used. What is needed is to ensure that market mechanisms can supplement national climate change policies – not at some abstract level, but as part of concrete reduction effort. National policy programmes with a strong climate change focus, the low carbon development strategies and the INDCs, which are to provide the

basis for contributions from the international community, can serve to provide a context and platforms to achieve this.

### Other options for increased ambition difficult

Of course, further reductions are available in principle in the sectors covered by the EU Emissions Trading Scheme (ETS) and in those covered by the effort sharing decision (ESD), from which the EU reduction target of 40 percent is to be drawn. But this is not the direction taken by the debate during the EU Council meeting on March 6. The reform proposals for the EU ETS largely contain measures which reinstate emissions trading as a highly effective instrument of EU climate change policy. Unfortunately, there are no signs that business might again use international certificates to achieve their targets in the medium term.

Light was shed on the scope for further reductions in the EU by proposals put forward to harness LULUCF as an offsetting pool for the 40 percent reduction contribution, which in itself would send out signals that are contrary to climate change policy thinking and would thus be discouraging. The good news is that no decision was reached on this. Drawing a cautious, preliminary conclusion, it would seem that use of the Market Mechanisms is far more likely than increased national reduction contributions.

As a next step, the EU INDC must be compared with the INDCs of other countries. In this regard, the Swiss INDC, with its 50 percent reduction target (of which 30 percent is to be achieved domestically), comes very close to the reduction path that is compatible with adhering to the 2°C global warming goal. Switzerland's willingness to achieve 20 percent of its reduction target globally is a strong signal for the global carbon market.



# Buyer Counters Crisis

## How Norway supports CDM projects at risk

by Ash Sharma, Nordic Environment Finance Corporation

Since the price decline of carbon credits in late 2011 and the subsequent collapse of the market, there are several hundred Clean Development Mechanism (CDM) projects which have been initiated but have not been able to continue for economic reasons. Against this backdrop, the Norwegian Government established the NEFCO Norwegian Carbon Procurement Facility (NorCaP) in September 2013, with the Nordic Environment Finance Corporation (NEFCO) as the Facility Manager. The principal objective of NorCaP is to prevent the reversal of emission reduction activities by procuring credits from such projects whose survival or continued emission reductions depend on a higher carbon price than is achievable under current market conditions (hereafter “vulnerable projects”).

The facility has sought to ensure the viability of existing projects and their emission reductions, support sustainable development outcomes associated with the projects and, to the extent possible, maintain monitoring, reporting and verification capacity in the market. Its target is to procure up to 30 million CERs from eligible project types in order to meet part of Norway’s commitments under the second period of the Kyoto Protocol. NorCaP, wholly funded by the Norwegian government, is one of the few remaining institutional carbon credit procurement instruments left in the market.

The Facility covers all CDM project types with the exception of hydro and wind projects as empirical data suggested that these were reliant primarily on power sales (there are exceptions for least developed countries (LDCs)). Other exceptions are industrial gases: trifluoromethane (HFC-23), produced as a by-

product of chlorodifluoromethane (HCFC-22), nitrous oxide (N<sub>2</sub>O) from adipic acid and coal-based energy production without carbon capture or storage.

The main NorCaP selection criteria are vulnerability and cost effectiveness (i.e. least cost, see below). Further information including call documentation is available at [www.norcap.org](http://www.norcap.org)

## Identifying and Evaluating Projects

The main form of project origination was through a Call for Proposals (CfP), similar to a tendering process. This route was taken instead of other channels, such as identifying and directly contacting project developers and owners, and formal auctions, for three reasons. First, this was due to the need for rapidly building up a pipeline of projects for evaluation. Given the rapid decay in the number of operational CDM projects and hence urgency in the market, speed was judged to be of the essence. Second, a contestable approach provided pressure on pricing. Third, NorCaP is working with a known universe of potential projects and used direct email contacts using the UNFCCC data on registered projects to invite potential applicants to bid, supported by wider communication for outreach.

NorCaP was able to mobilise and direct funds to projects rapidly. The facility launched a CfP within months of being established. All successful projects were contracted and the first credits received (and thus, funds disbursed) within one calendar year.

## Demonstrating Vulnerability

The concept of vulnerability was operationalised within a relatively short period. Given the constraints of time, there was only opportunity for limited stakeholder consultation.

After a completeness check, the projects were screened for eligibility criteria before being ranked in least cost order. The vulnerability testing was partially automated, using the logic as outlined in Figure 1, and supported by expert judgement.

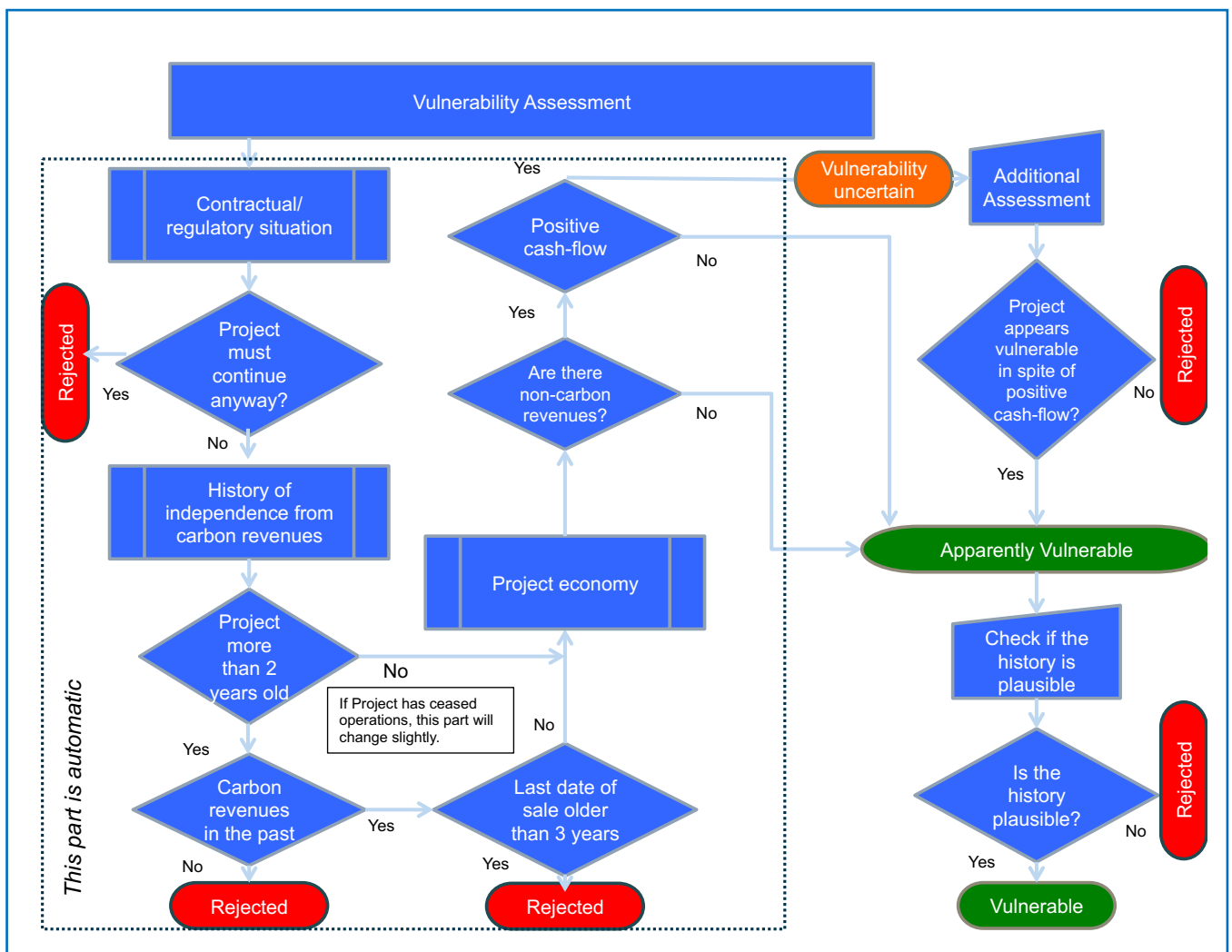
The highest ranked projects were then subject to further desk review and expert judgement. Letters of Intent were signed with shortlisted projects, and a

period of detailed due diligence undertaken including a thorough vulnerability assessment and a site visit to each project. Some projects were also unsuccessful at this stage due to non-vulnerability issues such as counterparty integrity concerns.

Commercial negotiations were aided by publication of a standardised Emissions Reduction Purchase Agreement contract. All CfP1 ERPA were signed by December 2014.

## Results

The first call for proposals under NorCaP closed in January 2014 and the second in December 2014. They



are referred to below as CfP1 and CfP2. Approximately half the number (and volume) of projects were received in the CfP2. There are, at the time of writing, no further CfPs planned.

There has been a good response overall and, in terms of countries submitting, is broadly in line with the general CDM pipeline. Projects located in LDCs have been particularly well represented.

There is also good diversity in terms of submissions by typology of projects (technology), with methane related projects well represented in the pipeline but also in the final CfP1 portfolio.

The prices bid into the CfPs are illustrated below and demonstrate the market response to the price cap introduced in CfP2. Most projects complied with the cap and the average price was accordingly reduced.

## Final CfP Portfolio

A total of 18.86 million CERs have been contracted from 10 projects or bundles of projects at an average price of g2.19/CER. The full list of projects is available at:

<http://www.nefco.org/sites/nefco.viestinta.org/files/Contracted%20NorCaP%20projects.pdf>

## Encouraging LDCs

In order to introduce some portfolio diversification, a set-aside of up to 5 million CERs was introduced in CfP2 for projects located in least developed countries (LDCs). The projects still need to demonstrate compliance with the vulnerability criteria and are subject to a cap of g4 per CER, which is higher than the average price in CfP2.

At the same time but supplemental to CfP2, the NEFCO Carbon Fund (NeCF), an established instrument in which Norwegian funds had been placed in 2008, was opened up for LDC projects, with a target volume of 3-4 million CERs. The NeCF projects are judged based on broader criteria, and projects did not need to demonstrate vulnerability.

## Conclusions and Lessons Learnt

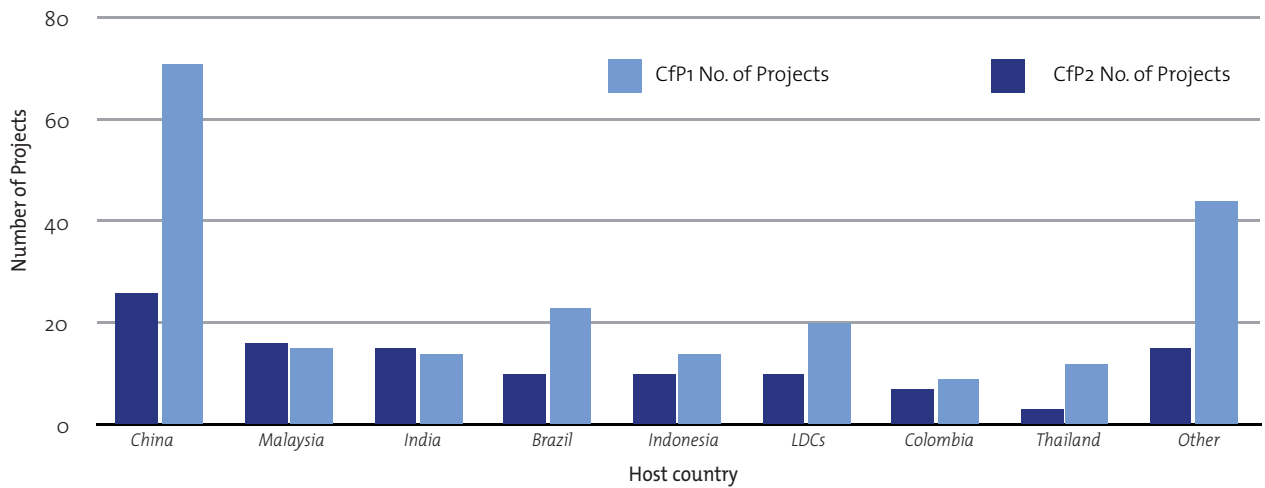
The first 18 months of NorCaP operation has exceeded expectations. The following preliminary conclusions can be drawn:

- NorCaP's presence in the market has attracted significant interest from project developers, with almost 350 eligible proposals, demonstrating

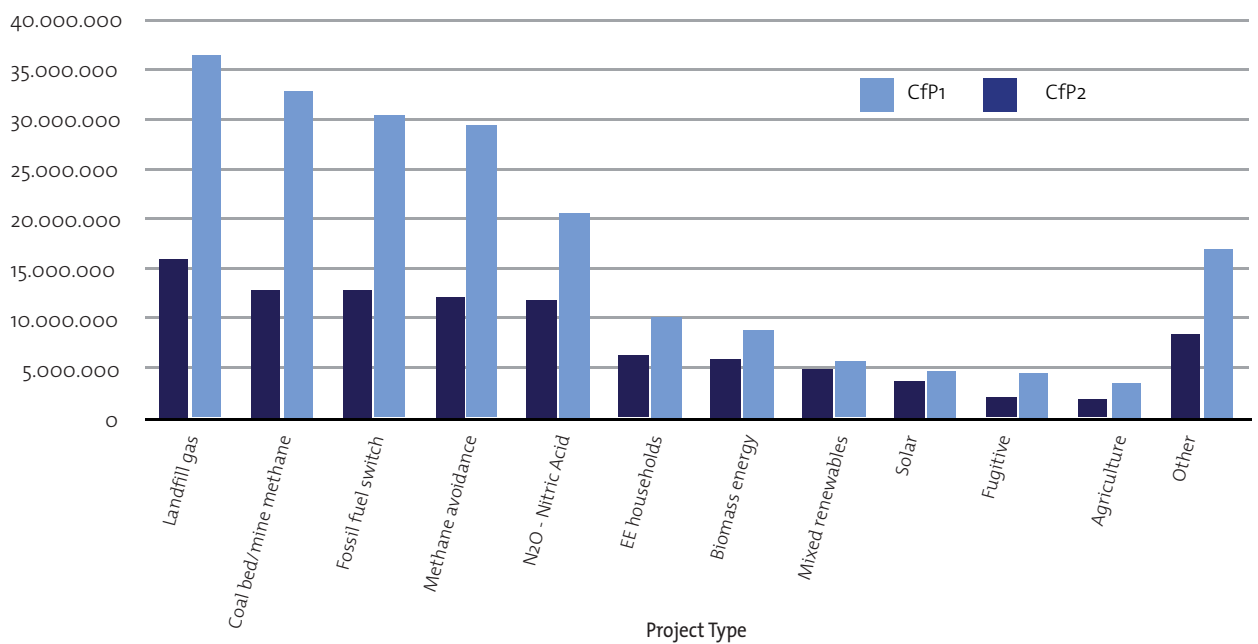
### Summary of Submissions Under CfPs 1 and 2

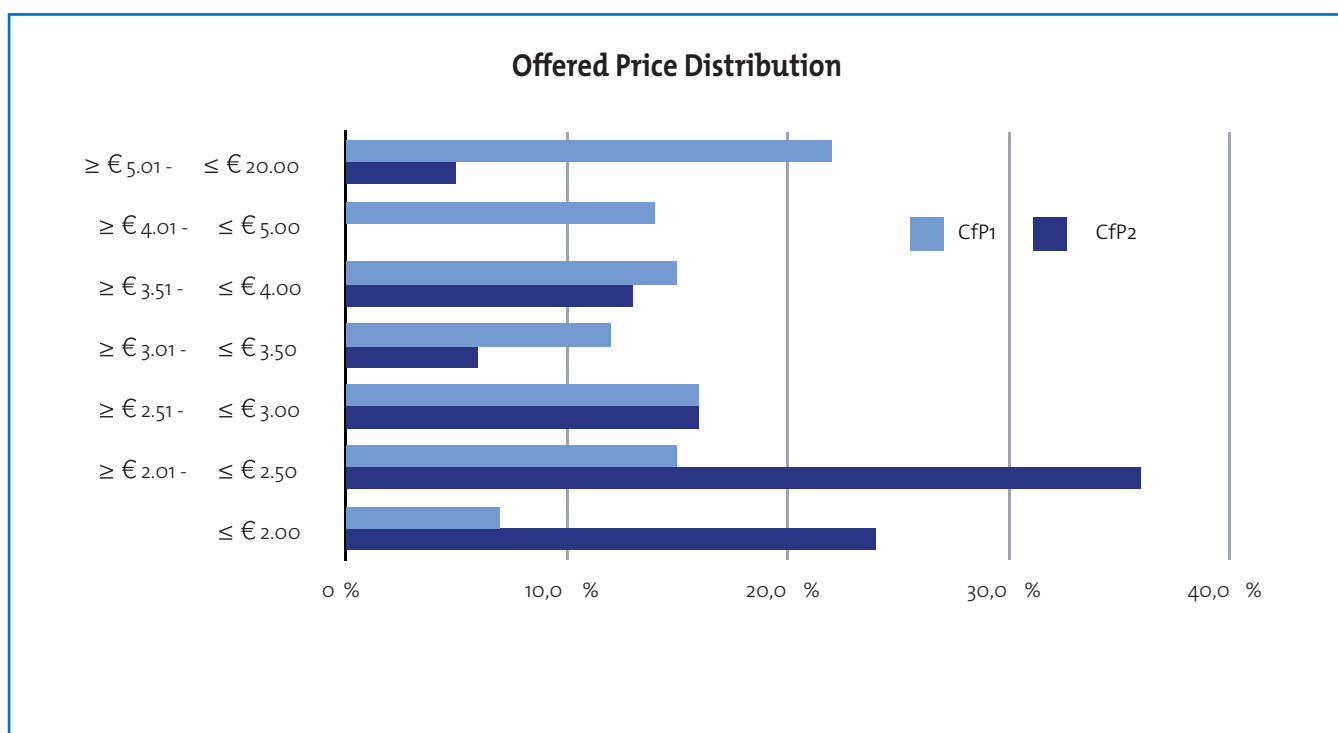
	CfP1	CfP2
Number of eligible projects (of which, PoAs)	232 (29)	114 (18)
Total volume (million CERs)	211	107
Weighted average price	3,92 g/CER	3,20 g/CER
Number of countries	35	27

### Comparison of submitted projects by Host Country (by number)



### Comparison of submitted projects by volume (t)





strong demand still remaining in the market. In total, the fund is over 30 times oversubscribed by offers over both calls. There is also some evidence of decay in the stock of viable projects as half the projects were in the second call, perhaps as projects cease activity after a few years of poor pricing, although there was possibly some self-selection based on price in CfP2.

- The NorCaP experience shows that emission reductions can be sourced cost-effectively – the contracted price under CfP1 was g2.19. In many cases, these are close to the marginal abatement costs. Competition ensures value for money for public funds.
- The contestable CfP approach has proved a successful and expedient method to attract good quality projects. As a result, the NorCaP has been able to direct funds to projects rapidly, thereby preventing GHG emissions in the short term. The

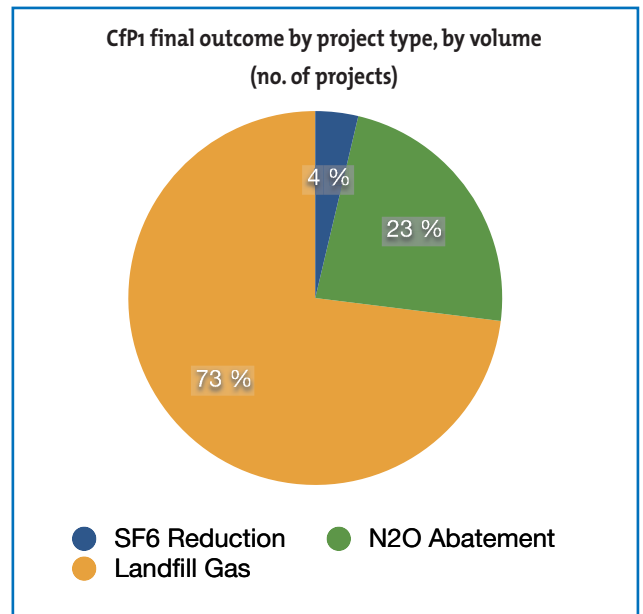
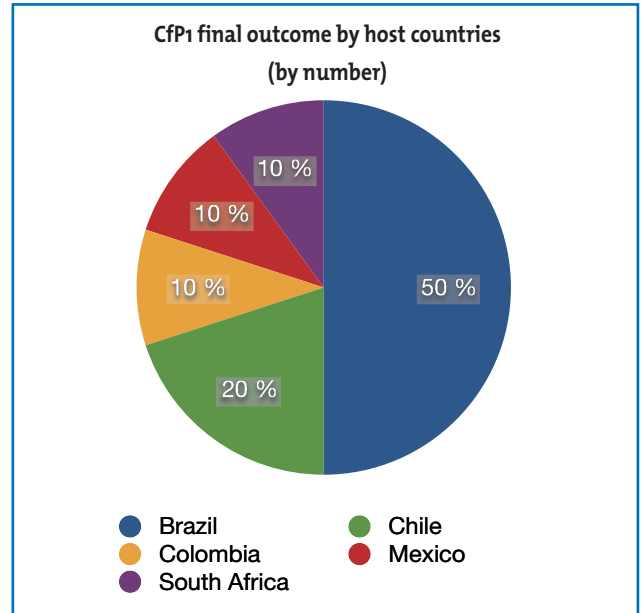
CfP model can be of use in targeting other project types and geographical priorities (e.g. LDCs) by varying the requirements of the call.

- NorCaP (and for that matter, the CDM) is a good example of results-based financing, which incentivises performance and is attractive to donors.
- The large number of methane-related projects (101 in CfP1 and 63 in CfP2) supports the need for a targeted facility directed at methane as a short lived climate pollutant. Such an instrument, possibly under the auspices of the Climate and Clean Air Coalition, could complement other initiatives such as the innovative Pilot Auction Facility (PAF), which is focused on larger and more capital-intensive projects since many projects will not have the wherewithal to bid into the PAF.
- The composition of the CfP1 portfolio shows that the vulnerability evaluation criteria clearly

favoured projects with no income other than carbon revenues. Together with the least cost criterion, this led to a narrow typology of projects being contracted in CfP1. While significantly reducing GHGs, these projects are typically less likely to have wider sustainable development impacts. Other programmes such as the World Bank’s Carbon Initiative for Development (CI-Dev) are currently targeting development outcomes through use of the CDM, although it should be noted that these are not compliance instruments and use Official Development Assistance.

- The vulnerability criteria turned out to be unsuitable for Programmes of Activity encompassing deployment of microtechnologies such as cook stoves, efficient lighting, and water purifiers since these project types were unable to unequivocally demonstrate that the emission reduction activities would be reversed in the absence of the NorCaP intervention. Further development of the vulnerability methodology, with wider consultation, may be required.

*Disclaimer: Any views or opinions expressed are those of the author acting in his personal capacity and do not necessarily reflect those of the Government of Norway or of NEFCO. Data analysis provided by Heli Sinkko at NEFCO.*





## Arguing **the point**

# Climate Financing Accounting: A Case of Overall Figures versus Overall Effect

**Frank Wolke, Head of Climate Change Projects at the German Emissions Trading Authority (DEHSt), argues the point with Timon Wehnert, Project Manager for NAMAs and MRV at the Wuppertal Institute.**

New climate change policy instruments and financing models, such as NAMAs and Results-based Finance, open up new paths to climate change miti-

gation. But the most important issues are still under debate. For example, it is in the interest of what are mostly public sector funders that their investment



### Frank Wolke

Frank Wolke, Head of Climate Change Projects at the German Emissions Trading Authority (DEHST)

achieves a measurable and presentable result – not least so they can justify the expenditure to the tax payer. But then again, the success achieved with many beneficial climate change activities cannot be expressed in euros or tonnes. Should this be seen as grounds to waive public

funding for transport-related emission reduction efforts? How strict can or must climate financing accounting be? Does the CDM's additionality principle help or does it suffice to describe the mere impact of a given measure?

### Frank Wolke:

When it comes to climate financing there are often different and sometimes opposing interests at stake. While the funding recipient (say, a receiver country) views with some scepticism the far-reaching external controls exercised on how they spend the funds they receive, the private or public sector funder has a responsibility to make the impact of their investment transparent. However, the funder faces the dilemma of having to ensure both economic efficiency (low transaction costs) and investment security (most of all, market integrity). In many cases, a concrete, quantifiable emission reduction is not perceived as essential to the investment as long as the expenditure can generally be labelled as beneficial to the environment.

Climate financing will nonetheless play a greater role in emission reduction efforts, as can be seen in the rising demand for Green Bonds: in 2014 alone, Green Bond investments amounted to over USD 36 billion (compared with USD 11 billion in 2013), and estimates for the current year see bonds worth up to USD 100 billion being purchased – a volume similar to that achieved with the Green Climate Fund. This increasing importance and capitalisation of climate-compatible bonds goes hand in hand with increased standard setting by key institutions like the World Bank and the European Investment Bank. In addition, work is underway to develop cross-institutional standards like the Climate Bond Standard and the Green Bond Princi-

ples, the latter taking in sectors eligible for investment like renewable energy, waste management, clean transportation and sustainable agriculture. The Green Climate Fund (GCF) is also working on rules to govern how funding is to be used.

The need for greater standardisation in climate financing comes up against an extremely well thought-through system to assess investments in climate change projects conducted under the CDM for their eligibility to be counted towards own reduction targets.

Similarities are thus evident in the approaches taken in climate financing and in the CDM. The situation is different as regards monitoring and control of the envisaged outcome, meaning the provision of proof of the actual emission reductions achieved. From my experience, transparent purpose and benefit documentation is still deficient in the climate financing sector and only in certain cases have stricter controls, such as using the CDM processes, been exercised.

In project evaluation, the above-mentioned climate financing standards are based on an ex-ante assessment and make no provision either for concrete emission reduction targets or for criteria to be applied in quantifying reductions. Once a project has been approved for climate financing, there are generally no follow-up controls to monitor and measure its impact.



What goes overlooked in all of this is the downside of a lack of an accounting method. An important aspect in climate financing involves boosting the investor's reputation, so Green Bonds must not be allowed to fall foul of the 'greenwashing' trap. I'm aware of this debate in relation to voluntary offsetting of emissions. The more reliable the documentation of reductions achieved with climate projects, the greater the reputational boost.

And there is another issue that may well be of importance in the future, especially for the countries receiving funding. Looking, for example, at financing for NAMAs, countries may have an interest in concrete quantification of the reductions they achieve in order to have them counted against their UNFCCC reduction targets – meaning their INDCs (intended nationally determined contributions). This approach brings benefits for both sides. The funding country can have the NAMA investment counted against its global financing pledge, while the receiving country can aim for ambitious targets. In addition, the application of accounting to NAMAs can assist the transition to a future market-based system which is also reliant on accurate monitoring and control. This will be difficult unless the reductions achieved are properly documented and proven.

### **Timon Wehnert:**

Of course, the impacts of climate financing must be assessed as accurately as possible. That's why I agree with you on many points. Greenwashing investments would be intolerable.

Climate change mitigation is at a unique advantage here: it has a globally accepted, physically measurable target indicator – tCO<sub>2</sub>e. This is unfortunately not the case in other policy areas such as health or, even worse, education. There are indicators available, such as the literacy rate, but they are rarely globally applicable. We would welcome the ability to measure the success of Germany's education sys-

tem, including tertiary education, based on the literacy rate.

This advantage for climate change mitigation can also be a handicap when it comes to climate financing. The apparent simplicity of the one indicator has attracted a large part of the climate community into a trap. I call it measurability bias. It is not the size of the impact that counts in selecting climate change measures, but the question of whether the impact can be accurately measured.

This is most evident in the CDM, where preference is given to project types that allow a high degree of accuracy when measuring their impacts. This leads to a huge sectoral imbalance, with only a few CDM projects in transportation (an increasing contributor to greenhouse gas emissions) and energy-efficient buildings (where huge reduction potential exists). I think that strict measurement of direct emission reductions (tCO<sub>2</sub>e) certainly makes sense for financing mechanisms aimed at a large number of relatively small-scale, similarly structured projects. And even more so if the projects are to be implemented by private sector stakeholders. Many NAMAs take a different approach, however, with the state acting as the key stakeholder who develops larger-scale, integrated policies. These policies are tailored to the country's needs and often comprise interrelated policy packages which combine economic incentives with regulations, standards, capacity building and information campaigns. A fitting example would be integrated urban planning aimed at reducing carbon emissions. Its components would include urban densification to produce the conditions needed to promote increased use of public transportation.

Calling for measurable reduction targets here would be nothing short of naive. Who would be able to claim the carbon credits? Those who drew up the neighbourhood plan in 2015 or whoever built the tram lines in 2030? And it would, of course, be nice to have not just ex-ante estimates but stringent ex-post evaluations. But that would require financing organisations to devise internal processes for the



**Timon Wehnert**

Timon Wehnert, Project Manager for NAMAs and MRV at the Wuppertal Institute.



Photo: KfW Bildarchiv / G.J. Lopata

*Measurable reductions: Installing solar panels in Morocco.*

wise management of impact assessments decades further on. I think that in many cases this is, to put it mildly, too much to ask.

I think that if climate financing is aimed not just at quick success at project level, but at making a contribution to low-carbon development over time, it should avoid pushing measurability bias too far. NAMAs in particular provide an approach that has become routine in development cooperation: programmes are negotiated between donor and recipient. The donor uses their expertise and knowledge to assess whether the recipient's proposal makes sense – and whether the donor's share is really justified. The issue of 'additionality' is negotiated. When international funders invest in education and health in poor countries, they naturally ask the recipient what share

they can afford to put up themselves and where they really need the investor's support. This approach could be taken with NAMAs. The way in which an institution like the GCF would provide funding would, of course, need to be operationalised. Financing priorities must be defined, and selection processes and criteria developed. But I think that reducing the financing process to the extent that funding only goes to the projects with the greatest, stringently measurable euro/tonnes CO<sub>2</sub> ratio is too short-sighted.

#### **Frank Wolke:**

I also think that certain climate change sectors are better suited to quantifiable approaches than others.

But I think the broader problem is the question of the underlying structure of climate change policy. We're about to negotiate a new climate change regime in Paris, where we are likely to be confronted with the task of finding a balanced mix of top-down/bottom-up approach. This in turn gives rise to the question of whether the Parties should build on absolute and controllable emission reductions (top down) to achieve the 2°C target or if that target can be better reached by setting out measures (bottom up) instead of specific targets. In terms of the latter approach, I understand what you're saying – especially if you are talking about integrated policy packages.

## “I think measuring achieved success is unavoidable”

*Frank Wolke*

Both approaches have their place and will be represented relative to the standpoints taken by the Parties at the COPs. Nonetheless, I think that measuring achieved success is unavoidable if we are to pursue not just some form of general climate change policy, but the aim of keeping global warming below 2°C. That target is an absolute target and one that can only conceivably be achieved by means of absolute reductions. The lack of a link between reduction measures and achieved reductions makes target attainment (or non-attainment) unpredictable. I think we are dealing with a different situation here to that in development cooperation, where there are no predefined, concrete, measurable targets (like the 2°C target or the national absolute reduction quantities).

Against this backdrop, I think that climate financing can make a measurable contribution. The cost-benefit issues of climate change policy are not something that first emerged with the introduction of emissions trading systems aimed at cost-effective reduction of greenhouse gases. But precisely where public funding is involved (and also that provided by private investors

who must justify their actions to their own investors and stakeholders), the matter of how efficiently and effectively the funds are used must be discussed. The lack of monitoring harbours the risk that the capital invested will not serve climate change mitigation to the extent required. We've heard the solar energy debate here in Germany, where some say that the investment is too high in relation to the success achieved. Such debate must be allowed to take place, and the best chance for it to be properly held and for fears to be allayed is with the benefit of performance monitoring.

A purely ex-ante assessment of climate change activities regardless of the selection criteria used does not go far enough. With the CDM, we have seen that the anticipated emission reductions declared in the original project application documents often differ from the actual result, with upward and downward deviations. This shows that paper is both patient and accommodating. The same applies for financing applications. The lack of monitoring to assess actual results opens the floodgates for questionable project ideas.

I do not hold with the argument that that certain sectors would generally not be suited to emission reductions monitoring. The distribution of project types under the CDM is based on several grounds and not simply the question of measurability. Also, the CDM Executive Board (EB) is working to develop cross-sectoral approaches. With a Programme of Activities (PoA), programmatic approaches can be used under the CDM which can be assessed using a range of different methodologies. In addition, and borrowing from this example, the EB is considering integrated urban planning conducted as a CDM project and the possibility is also being looked at of integrated methodologies for various measures within a given sector such as urban planning (in relation to waste, energy and buildings).

These approaches would appear future-focused. Instead of the chance to negate monitoring per se and thus to exclude certain climate change activities from result monitoring, it would be better to continue to



Photo: M. Grande/UNFCCC

*How much CDM does climate financing need? A CDM geothermal energy project in El Salvador.*

work towards finding a way to make reduction achievements visible ex-post in an integrated and aggregated way. But this does not mean that funding should only go to the 'highest, precisely measurable' capital to emission reductions ratio. It is conceivable that compromises could be made regarding verifiability or that generalised approaches based on experience and theoretical assumptions could be used. And when deciding whether to invest, investors can also take other criteria like sustainable development benefits into account and rate these higher than a purely

measurable emission reduction. In the end, however, the intended result should be documented. This would assist objective discussion as to what contribution a particular investment makes in what sectors (climate, development, health and so on).

**Timon Wehnert:**

The reference to the UNFCCC negotiations and to the Paris talks is really important. Perhaps this is what lies at the core of our debate. If I could choose what the

outcome would be, it would be a top-down approach with commitments for all the Parties similar to those set out in the Kyoto Protocol. But I don't think that is politically attainable. What will probably happen is that many INDCs will be formulated not as greenhouse gas reduction targets, but as reduction measures. I think that is highly regrettable and not conducive to a robust agreement.

## “Emission reductions must be stringently measured and balanced in sectoral inventories” *Timon Wehnert*

What I also think is that, in principle, there are and should be two paths. Emission controls must be top down: via national or sectoral emissions inventories. Whether countries (and which ones) are willing to formulate targets is a different matter. But this outlook is what counts when it comes to the climate. This is why we need stringent monitoring of aggregated and aggregatable emissions. The second path takes in climate change activities. These are completely independent of the inventories. Their implementation falls as a rule to other ministries (energy, economy, transport – but not environment). Naturally, these measures should be aimed at reducing emissions and be subject to results monitoring, but I believe it would be counterproductive to link them to a carbon reduction indicator. When all is said and done, that is the original idea behind the NAMAs – developing countries must also do their bit!

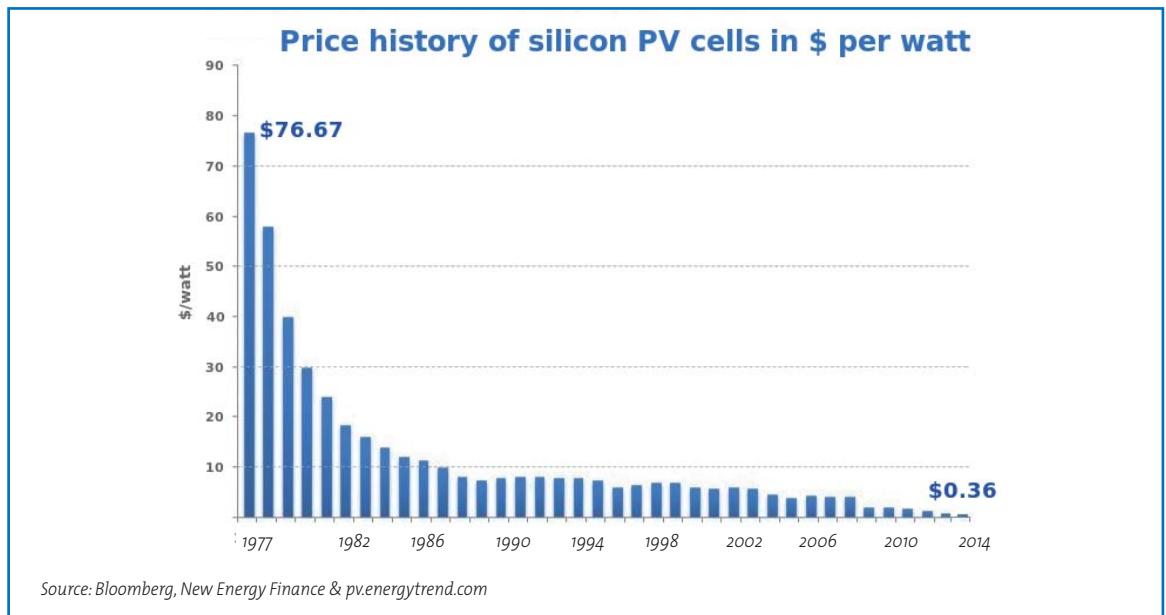
How emissions will evolve from there (looking at things from the sectoral inventory standpoint) is difficult to say, which is why the developing countries have not committed to specific targets to date. If, however, it is required that the reductions achieved with such measures must be accurately measurable (at the accuracy level that follows from the CDM offset approach),

then the commitment to conduct measures amounts to the same as a commitment to achieve reduction targets. It could, of course, be hoped that developing countries would also use this back door approach to commit to de facto emission reductions. I don't think it would be very successful, though.

A further difficulty that I see is that emission reductions can't really be measured accurately at activity level if they are to be calculated in a meaningful way. Where only small quantities are involved, as with the CDM, the mistake may be minor, but where the necessary orders of magnitude are reached, overlaps between highly different impacts will come to light. For example: in Germany, the energy efficiency of buildings has steadily increased through the ongoing enhancement of building standards. Maximum energy consumption per unit currently stands at only a fifth of that contained in Germany's Thermal Insulation Ordinance of 1977. This is a huge achievement and one that would be extremely easy to transform into tonnes of carbon reduction. The fact is, however, that heating energy consumption per capita has remained constant for the entire period – our homes are simply getting bigger and bigger.

If I want to know if my climate change project is successful, then it's not enough to assess the impact of a given measure. The deciding factor is the level of my sectoral emissions. That's the only way for me to see if, in interaction with all other factors that are relevant for emissions development (economic growth, lifestyle, etc.), the many policies and measures implemented by a state government are enough to enable me to achieve my climate target. That's not something I can answer by evaluating each individual policy.

Specific policies must be subjected to more intensive evaluation (ex-post as well, of course), but not necessarily and, more importantly, not exclusively on the basis of their direct impact on emission reductions. Long-term, indirect impacts must also be included in the evaluation. The solar energy financing mentioned earlier is a perfect example. If it were only assessed for the cost-effectiveness of the direct emission reduction



achieved (€/tCO<sub>2</sub>), Germany's Renewable Energy Resources Act (EEG) would be a complete disaster.

But the impact of the EEG goes much further. In my view, it's an instrument to promote technology development and the launching of technology on the market. The German EEG and the financing mechanisms of other pioneer countries have led to a massive reduction in costs in photovoltaics. This drop in price has made it possible for China to become hugely active in the production and installation of solar energy systems. I am convinced that without the German EEG, we would not see the global growth in new renewables that we are seeing right now. And am I also convinced that without these huge cost reductions in the renewables sector, China could not have taken the climate policy step that it took in 2014. I find all that highly plausible – but, unfortunately, not at all measurable. I find any attempt to quantify greenhouse gas reductions achieved with renewables in China as an impact of the German EEG rather dubious. But having said that, I believe this impact is hugely important for climate change policy.

As far as I see it, emissions must be stringently measured and balanced in sectoral inventories. This is the

only way to clearly define emission reductions at this level – as the difference between the aggregated emissions in 20xx compared to 20yy. By way of contrast, the emission reductions that arise from specific measures cannot be clearly defined. This depends on the arbitrary choice of baselines and impact thresholds.

### Frank Wolke:

The success achieved with specific measures can come in many forms. To avoid any misunderstanding: I welcome the benefits to be had from the EEG and in no way would I want to reduce its impact to a pure emission reduction debate, because there are naturally other factors such as the kick-off financing you described and the role model effect that can influence the end result. If, however, a variety of goals or targets are achieved with a single measure, then they should each be named, as is the case with the EEG.

That's not to say that this monitoring should necessarily be based on a measurable emission reduction. Rather, when financing a measure, investors should

ask where the focus of the result will lie and then monitor appropriately. Multiple goals should not serve as free license to neglect the need to monitor the result.

I am not, however, in favour of overburdening individual measures with different objectives. Many investors tend to want to use their investment to 'sell' as many objectives as possible. This is risky in that an investment made for these reasons will make it difficult to actually achieve the objectives. I think the CDM takes the right approach in that not all issues that are linked to the CDM (such as the difficulty in defining requirements for sustainable development) must be stringently measured at the end, but instead the focus of results monitoring is on emission reductions.

The deciding factor in the end is that the success of the measure is made visible in respect of its predefined targets and objectives. For example, the ever-greater focus on peatland conservation and rewetting. In the past, this sector was largely viewed from a nature conservation and habitat protection standpoint. But more recently, its climate change potential has been stressed. Suitable indicators ideally cover both sectors (and ideas actually exist on how to measure the various results).

An inventorisation of sectoral emissions assists results monitoring. If, however, the sectoral emissions are not reduced as anticipated, the question arises as to what happened and why, and which of the measures used need to be improved. This suggests a rebound effect, which undoubtedly is hard to pin down. But for that very reason it needs to be made clear that the inability to distinguish specific emission reductions is compensated for by proven reductions in other sectors.

When it comes to climate financing, investors should thus articulate their targets in more detail and use appropriate indicators to monitor their achievement. This calls for a change in how climate financing is understood. Up to now, according to my observations,

the outflow of funds provided has been more important than achieving the intended targets.

To ensure that climate financing does not lose sight of the 2°C goal entirely, measures with unpredictable reduction contributions should be combined with those with reduction potential that can be adequately measured. Given a combination of this kind, it is at least possible to determine a corridor for potential emission reductions.

### **Timon Wehnert:**

We need to be clear about whether we're speaking about INDCs, which taken together must keep a 2° pathway open, or about measures that are to be supported by means of climate financing.

To estimate whether we will achieve the necessary level of ambition at global level it would, of course, be desirable for INDCs to comprise stringently quantifiable targets rather than measures with non-quantifiable reduction impacts. I think the strategic issue here involves striking a balance between the two. The biggest issue in all of this is the extent to which the big emitters – meaning the US and China, and after them many others – can be motivated to bring something substantial to the negotiation table.

With regard to climate financing, I would not agree that the majority of supported measures should be measurable in terms of their emission reductions. Our standpoints seem to differ only slightly on how much must be quantified in tonnes of CO<sub>2</sub> and how much should be assessed using other indicators over a period of time. I think a mixed approach would make sense. But there is a general problem. In many cases, a mix of quantitative and qualitative or aggregatable and non-aggregatable indicators results in communication and assessment focusing largely on the highly aggregated figures, with the rest being recorded as 'other'. If both are allowed, then the indicators must be taken seriously beyond the short-term measurable impact on the climate.

However, it is necessary not just to monitor the indicators, but also the processes involved in climate financing. If the outflow of funds is more important than stringent monitoring of target achievement that is, of course, an unacceptable situation. This is often the result of fluctuating budgets and policy uncertainties. Long-term planning security is an important basis on which to develop qualitative programmes and instruments.

In addition, the climate financing institutions need to review their assessment processes. The NAMA Facility has set itself the goal of supporting transformative change and the GCF wants a paradigm shift. The question arises, therefore, as to how that can be operationalised. I think that focusing on short-term achievable and clearly measurable emission reductions would be the wrong approach. The NAMA Facility has opted to support NAMAs with long-term objectives which could develop potential that goes beyond the project framework itself. Such effects can neither be stringently measurable (in the same way that the impact of the EEG on the climate change talks cannot be measured) nor are they predictable. What we are dealing with here is an innovative experiment. But by virtue of their very nature, experiments can sometimes fail.

What is important in this case is the assessment of the financed portfolio as a whole and not of individual projects, so that a financing institution can say: 'Six out of ten projects failed miserably, but we have made a valuable contribution to low-carbon development with the four that didn't.' It could be said that a venture-capital attitude should be taken in climate financing. We need financiers who take systematic approaches and require that the projects they support do the same.

### Frank Wolke:

This debate has clarified something for me: the path to climate change mitigation is multifaceted and to an extent dependent on fundamental assumptions and expectations. Let me summarise how I see it.

The non-quantity-based approach you favour for climate financing, which promotes policies and concepts, seems to take in sectors that are not open to exact results monitoring. This can be used primarily for complex packages of measures with multiple goals. The focus is largely placed on a transformational change which leads only in the long-term, and thus indirectly, to emission reductions of unknown size. Direct financing of transformative technologies (as with the EEG) is justified in this case.

But the non-quantity-based approach leaves uncertainty as to the outcome. In some sectors – like the development projects you mentioned – there are hardly any other alternatives to sparking and promoting certain behaviours and systems based on ex-ante assessments. Target monitoring proves extremely difficult, and the difficulty begins with defining suitable indicators.

Climate financing always involves a concrete, long-term goal – that of keeping global warming below 2°C. This is where quantity-based instruments with accurate measurement of results (meaning monitoring of emission reductions) come in. The advantage here lies in better control of the target path to maintain the 2°C limit and the earliest possible remedy of any negative developments. This allows the successes achieved to be presented as a tangible result. An approach such as that used in venture capital could have dire consequences. When it comes to climate change mitigation, I'm not sure it is wise to experiment with the investment of large amounts of money without obtaining more or less reliable findings as to their emission reduction impact.

In my view, non-quantity-based climate financing can only serve to support rather than replace controlled emission reduction measures. The deciding factor is the size of the share of measures that should be quantity-based (and be controllable via monitoring) and the extent to which 'experiments' can be ventured into. For me, large financial amounts should be calculable as regards their climate change impact in order to obtain a more or less reliable estimate of whether the intended emission reductions have been



achieved. By virtue of its name, climate financing should be used, first and foremost, as a means to make a verifiable contribution to mitigating climate change and not in serving other goals.

### Timon Wehnert:

I think your interpretation of the term 'venture capital' is symptomatic of our differing views. It's not about carelessly throwing investors' money at some reckless project. A greater risk must be cancelled out by potentially greater contributions. Across all projects, both the failures and the successes, the investors expect realistic returns. And this is how it should be with climate change activities: all measures taken must contribute to achieving the 2°C target.

The paradigm shift called for by the GCF means nothing more than replacing our old mindsets with new ones. We need innovation and we need climate financing to support it. This is why I'm unable to follow your argument against experiments.

In the debate on a suitable accounting system for climate financing, we need to differentiate between two fundamental issues: on the one hand, the task is to assess whether we are on the right track towards the 2°C target. There is only one indicator that must be quantified as accurately as possible: greenhouse gases in tCO<sub>2</sub>e. Methodologically, it's a matter of aggregating to the maximum. The basis for the assessment must be the national inventories, including extrapolation for future trends. This must be compared with the aggregated reduction targets, meaning the national INDCs.

This outlook has, however, only an indirect link to globally funded climate financing. When it comes to quantities, its contribution is small compared with the reductions that all countries (including Annex 1) must achieve in order to maintain the 2° goal. By quantifying the 'climate financed' greenhouse gas reductions, no reliable conclusion can be drawn as to whether the global climate target will be reached.

In climate financing, results monitoring and quality control take things to another level: the evaluation of individual reduction activities. The question is thus whether these individual measures achieve what is expected. Are they worth the investment or should we choose other measures? It's really about looking at specific activities from a micro perspective. For some activity types, quantification of achieved greenhouse gas reductions is possible with acceptable effort and sufficient accuracy, and it should be done. But aggregation even across several activities is difficult, because in many cases considerable uncertainty exists due to the difficult-to-quantify interactions between the various measures. In addition, there are many activity types whose direct emissions impact cannot be reliably quantified. Other quantitative and qualitative indicators must be used. Also, the selection and evaluation processes must be designed to ensure that a high level of quality is guaranteed.

Looking at the activity types to be supported by climate financing, it appears that measures are needed which achieve short-term, direct emission reductions. But measures are also needed which allow long-term, strategic shifts towards almost complete decarbonisation. With these latter measures, direct, measurable emission reductions are the wrong type of indicator. Other assessment systems and processes must be used – not only to 'support' the quantification of direct emissions, but as a stand-alone evaluation approach.

*The opinions expressed by Frank Wolke reflect his personal views and do not necessarily represent those of the Federal Environment Agency (UBA) or the German Emissions Trading Authority (DEHSt).*

## World Bank announces selection criteria for CER auctions

The collapse in prices for CERs renders many promising carbon reduction projects unviable. This situation is especially critical for projects that rely exclusively on revenue from certificate sales. To ensure that the climate change activities conducted under such projects can continue, the World Bank has established the Pilot Auction Facility for Methane and Climate Change Mitigation (PAF). Germany, Switzerland, Sweden and the US have collectively pledged some USD 53 million to the PAF to date.

The PAF will support projects at risk by purchasing CERs and then setting them aside. The CERs will be bought at a guaranteed minimum price. This will come in the form of put options offered in competitive auctions.

### First USD 25 million tranche to be auctioned in June

The first competitive auction will be held in June, offering USD 25 million in puts. The auction will focus primarily on waste management projects in which significant quantities of methane are released. During the auction, put options will be offered at a guaranteed fixed purchase price for a single tranche comprising 2,000 CERs. The winners must pay a small charge of USD 0.30 per CER, but then have the right to sell those CERs to the PAF according to a specific schedule over the next five years and at the price attained at the auction.

The World Bank has announced the criteria to be applied in selecting projects and programmes for its CER auctions:

- The certificates must not be subject to a purchase agreement with a third-party
- The certificates must originate from a project or PoA that uses at least one of the CDM methodologies contained in a predefined list drawn up by the World Bank. The list currently comprises 35 methane-avoidance methodologies.
- The CERs must originate from a project or PoA conducted in an eligible host country. The list of eligible countries takes in all key CDM host countries and all LDCs. The main exception is China, whose statutory minimum price for CERs is not compatible with PAF modalities.
- To ensure that PAF-funded climate change activities actually continue, CERs are allowed which were issued after the auction and originate from projects whose last monitoring period did not begin before 15 September 2014.
- Projects must meet specific, DOE-verified environmental, health and safety, and integrity criteria.

More information about the selection criteria, including the list of eligible countries and CDM methodologies, is available on the PAF website. Details of the auctioning procedures will be published on the website shortly.

### Further information

See either <http://www.pilotauctionfacility.org/> or send an email to: [PAF\\_Secretariat@worldbank.org](mailto:PAF_Secretariat@worldbank.org)

(LH)

## Philippine NAMA builds on CDM standardized baseline

# Building Block for the Future

by

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The introduction of the standardized baseline (SB) concept under the CDM was an attempt to reduce the costs of CDM project development by establishing default baseline emission factors for specific project types, countries or regions. However, with the decreasing interest in the CDM, standardized baselines have been receiving much less attention than they actually deserve. In this article, we will introduce the case where an SB has become the basis for the MRV of a NAMA in the Philippines and illustrates how CDM standards can be applied to emerging, holistic climate finance instruments.

## Rice Cultivation and GHG Emissions

Rice is considered the most important agricultural product in the Philippines and the country's staple food. The Philippines was the 8th largest rice producer in the world in 2012 with about 18 million tons of rice produced. Out of 2.7 million ha of rice fields, more than half or 1.5 million ha are irrigated (data for the wet season).

For many generations of rice farmers, continuous flooding up to harvest has been practiced in irrigated rice fields. However, flooded rice fields are also an important anthropogenic source of atmospheric methane. The main vectors behind methane emis-

sions are methane-forming bacteria, which perform well under anaerobic conditions and are responsible for harvesting organic carbon and transforming it into methane through the process of methanogenesis. It is estimated that approximately 13,364 ktCO<sub>2</sub>e/yr or 13 percent of the total GHG emissions in the Philippines are caused by methane emissions from rice fields (The Philippines' Initial Communication on Climate Change, 1999).

Tackling GHG emissions from rice cultivation has been a major task for rice scientists for several decades. Significant research has been conducted by the International Rice Research Institute (IRRI) and the Philippine Rice Research Institute (PhiRice). This resulted in the development of Alternative Wetting and Drying (AWD), an irrigation technique that allows for modification of water management for shorter periods of rice field flooding and better soil aeration. Although pilot projects for the application of AWD had been conducted in the past and showed very promising results in terms of GHG emission reductions, water savings and even increase in yield, no stimulus actually existed in the Philippines or other rice producing countries to allow the widespread introduction of this irrigation practice.

The CDM DNA of the Philippines has been aware of the contribution of rice cultivation to overall GHG emissions and requested UNDP MDG Carbon to



Photo: M. Federe / wikimedia commons

*Standardised baselines or direct measurement approach? Rice terraces in the Philippines.*

develop an SB and to promote the CDM as a means to incentivize the application of AWD across the country. In 2013, UNDP MDG Carbon, with the technical support of Mitsubishi UFJ Morgan Stanley Securities Co., Ltd., began to develop the SB.

## Development of the Standardized Baseline

Several issues required attention at the onset of SB development. The first issue was the selection of the approach for SB development, namely whether to use the “Guidelines for the establishment of sector spe-

cific standardized baselines” (SB guidelines) or follow the baseline determination approach already described in existing CDM methodology AMS-III.AU. “Methane emission reduction by adjusted water management practice in rice cultivation” (ver. 03.0). While the SB guidelines cover methane emission avoidance among the applicable measures, further analysis showed that the guidelines address methane avoidance from decomposition of organic waste or biomass only and were not suited for methane emissions from rice cultivation. Using the existing methodology AMS-III.AU. emerged as the only option.

AMS-III.AU. version 03.0 provided two approaches for establishing the baseline and GHG emission reduction estimation. The first approach required direct measurements of methane emissions (“direct measurement approach”), while the second used default values derived from the IPCC 2006 Guidelines for National Greenhouse Inventories (“default values approach”). Although the second approach provided a simplified framework for GHG emission reduction estimation, it did not contain any country-specific default values. Therefore, it was concluded that standardisation of the direct measurement approach should be used to derive country-specific baseline emission factor values for rice cultivation in the Philippines.

The direct measurement approach requires conducting methane emission measurements at reference fields. Comprehensive measurements of methane emissions from various types of rice fields have already been conducted in the Philippines as part of a Global Environmental Facility (GEF) funded project in the period 1994 to 1998. The measurement procedures followed by the GEF project were also the basis for the reference field measurement procedures described in AMS-III.AU. Therefore, it seemed that the results of the GEF research could be directly used for the establishment of the standardized baseline.

Unfortunately, the emission factors that were estimated as part of the GEF project covered mainly the cases when no organic amendments, such as rice straw, were used in rice fields and without taking into consideration the water regime pre-season and during the cultivation period. Using only the original GEF project emission factors would not have reflected the actual rice cultivation and irrigation practice, thus resulting in underestimation of the baseline emissions. In the end, a more innovative approach was developed, applying the default values approach in AMS-III.AU. and avoiding additional direct measurements.

The default values approach was originally derived from the IPCC 2006 Guidelines through the multiplication of a baseline default factor by various scaling

factors to account for specific conditions, such as water regime or organic amendments. Although the CDM methodology did not directly provide for such an option, it was decided to use the existing country-specific baseline default factor instead of the IPCC 2006 default factor and multiply them by scaling factors. In this way, baseline emission factors for various conditions in specific rice fields in the Philippines were derived.

The default values approach in AMS-III.AU. not only established baseline emission factors, but also project emission factors and emission reduction coefficients that allow easy and straightforward methane emission reduction calculation. It was decided to apply the same approach and, in addition to baseline emission factors, project emission factors and emission reduction factors from the country specific baseline factors for the Philippines were derived. In this way, the need for monitoring of project emissions was completely eliminated.

The UNFCCC Secretariat was extremely supportive towards the proposed standardized baseline. When the draft was submitted, the Secretariat recognized that the submission was incomplete, as it did not exactly follow the existing methodology. At the same time, the Secretariat acknowledged the innovativeness and the importance of the proposed approach and initiated a revision of AMS-III.AU. from version 03.0 to the current version 04.0, which was subsequently adopted at the 81st meeting of the CDM Executive Board in November 2014.

The key issues identified during the SB assessment by the DOE and the UNFCCC Secretariat were related to the measurement techniques and data quality. However, all the input values used in the proposal were based on the results of the GEF project, which were subsequently published in a series of articles in the *Journal of Nutrient Cycling in Agroecosystems*. As these are peer-reviewed publications, the data met the rigorous data quality requirements of the relevant CDM data quality guidelines, such as “Guidelines for quality assurance and quality control of data used in the establishment of standardized baselines”.



Photo: manabug18 - Fotolia

*Exploring new techniques - continuous flooding up to harvest has been practiced in irrigated rice fields for many generations.*

While assessing the methodology, the UNFCCC Secretariat also came up with a proactive proposal to classify the application of water-saving techniques in the Philippines as additional. They stated in their recommendations that as per para 2 (c) of the “Guidelines on the demonstration of additionality of small-scale project activities”, the positive list of additional measures comprises of “project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds” (that is 3,000 tCO<sub>2</sub>/year for

Type III). Since in this case of water saving irrigation techniques, the users of the technology/measure are farmers and the resulting emission reductions are very small (less than 1 ton/ha/year), the application of water-saving measures was classified as automatically additional

## From Standardized Baseline to NAMA

The standardized baseline was approved at the 82nd meeting of the CDM Executive Board in February 2015 as ASB0008 “Standardized Baseline for Methane

Emissions from Rice Cultivation in the Republic of the Philippines". However, the positive feedback received during the initial assessment by the UNFCCC Secretariat, as well as the interest shown by various stakeholders in the Philippines, provided a clear signal that water-saving technique, such as AWD need further support.

The SB provided a simple and highly standardized MRV methodology for the rice sector. The research conducted as part of the SB development further revealed that there are significant benefits that water-saving technologies can bring, related to food security, climate change mitigation and adaptation. Despite all positive results demonstrated by the pilot projects, the lack of an overall policy incentive framework never allowed actual transformation in the sector. Also, after the collapse of the carbon market, the CDM could no longer serve as an incentive for project development. Thus, the option of developing a NAMA emerged as the most holistic solution to promote AWD and bring the rice sector to a low emission path.

Following a subsequent request by the DNA of the Philippines, UNDP MDG Carbon supported the development of a NAMA study and consequently a fully-fledged NAMA for the rice sector. The NAMA was developed with the support of Mitsubishi UFJ Morgan Stanley Securities and is expected to be made public by April 2015. The NAMA took an holistic approach to transformation of the irrigation practices in rice cultivation and incorporated a set of incentive schemes for farmers and government entities that targets the existing structure of the rice irrigation system, while at the same time providing individual farmers with the required capacity-building and knowledge dissemination.

In order to achieve an even wider transformational impact, as well as acceptance among farmers, the NAMA additionally offers a support package, consisting optional training to participating farmers in diversifying agricultural production. Under this optional scheme, all farmers who participate in the application of AWD under the NAMA are provided

support by the Philippine Rice Research Institute for cultivating other crops. This will allow farmers to develop new agricultural skills, access new markets and diversify their revenue sources.

The robust MRV of the NAMA consists of two components, GHG and sustainable development (SD) MRV system. The GHG MRV system is entirely based on the approved standardized baseline, ASBoo08, while the SD MRV is based on the Sustainable Development Tool designed by MDG Carbon. Finally, the NAMA proposal contains a comprehensive financing scheme combining local and donor funding, as well as an implementation plan, making it a fully-fledged and bankable document. All this makes the proposed NAMA a pioneering effort, both in the Philippines and globally, which is expected to become a model that can be easily replicated in other rice producing countries.

## Conclusion

This article introduced the case of a pure CDM tool – a standardized baseline – that inspired the development of a comprehensive GHG emission reduction framework under a NAMA. This example is especially relevant for sectors that remained underrepresented in the CDM and require a more policy-driven approach, such as agriculture or transport. Finally, the responsiveness of the UNFCCC Secretariat in the assessment of the SB was extremely positive and shows that the CDM and its tools can still serve as standards for emerging climate finance instruments.

# CARBON MECHANISMS REVIEW



## Transformation and the NMM

A new JIKO policy paper looks at how the New Market Mechanism can assist transformative change and the kind of structure it needs for its full potential to unfold. Available for download at:

[www.jiko-bmub.de/1485](http://www.jiko-bmub.de/1485)

## FVA/NMM Negotiations

A short study outlines the current status regarding the UNFCCC negotiations on the New Market Mechanism (NMM), the Framework for Various Approaches (FVA) and the non-market based mechanism.

Available for download at:

[www.jiko-bmub.de/1483](http://www.jiko-bmub.de/1483)

## 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-bmub.de/459](http://www.jiko-bmub.de/459)