

Editorial

Dear Reader,

At the Climate Change Conference in Durban, negotiators agreed to create a new market-based mechanism. In times of dwindling demand for the already established Kyoto Protocol mechanisms, some observers question how a new, dynamic market can evolve in the carbon sector. Yet others point to the limitations of the CDM and the need to systematically expand climate change activities in developing countries.

This issue of JIKO Info focuses on the opportunities and the barriers for the new market mechanism (NMM). The JIKO team takes an in-depth look at why an NMM is necessary, what design options are possible and outlines the key points of conflict in the NMM debate.

The spotlight is also placed on potential new sources of demand by looking at emissions trading schemes evolving in Australia, China and Mexico. What all three have in common is that they provide for carbon offsetting in one form or another. This could boost demand for CERs, which would in turn help boost overall demand in the longer term.

On behalf of the JIKO editorial team, I wish you an interesting and informative read.

Christof Arens

Content

- ▶ Why New Market Mechanisms?
- ▶ What Design for the New Market-Based Mechanism?
- ▶ New Market Mechanisms Have a Stony Road Ahead
- ▶ A New Hungry Kid on the Block?
- ▶ Trailblazer China?
- ▶ Climate Change Legislation in Mexico – Towards a National Emission Trading System

JIKO Analysis

Why New Market Mechanisms?

by Dr. Silke Karcher and Thomas Forth, German Environment Ministry

At the Carbon Expo in Cologne, one question was posed repeatedly: Why is the EU so in support of new market-based mechanisms although on the one hand it sees no future as regards demand for offsetting certificates, while on the other CDM reform continues apace? Also, with the standardised baselines and the programmatic approach, everything has been put in place to scale up emission reduction efforts and ensure that offsetting mechanisms deliver a net contribution to climate change mitigation on a global scale.

But first, a look at the criticism levelled at the EU: It would, of course, be welcome if the EU – alongside its efforts regarding implementation of new market mechanisms (NMM) – could also provide for a demand segment. Although up to now, the EU has largely generated the global demand for CERs by itself, it is both inappropriate and rather naïve to expect the situation to remain unchanged with the new mechanisms.

Continued on page 2

JIKO Analysis

What Design for the New Market-Based Mechanism?

The Durban conference decided to establish a new market-based mechanism that would cover "broad segments of the economy". However, how exactly the new mechanism is supposed to work is as yet unclear. Parties were invited to submit their views on the new mechanism by the beginning of March and the climate talks in Bonn included a workshop for in-depth discussion. JIKO Info gives an overview of the design proposals that have been put forward by Parties and discusses how the mechanism could operate on the ground at the national level.

Continued on page 5

JIKO Analysis

Why new market mechanisms?

Continued from p. 1

Far more weight is given to arguments in favour of further developing the CDM rather than introducing a new market-based mechanism. So what are the pro-NMM arguments?

Scaling up could in principle be achieved with a reformed CDM. The success of the CDM, which is based on very limited demand from relatively few industrialised states – and for the most part on demand from the EU Emissions Trading Scheme (ETS) –, is impressive despite justified criticism regarding the problems experienced to date.

Assuming the theoretical maximum achievable demand, meaning 1.5 percent of emission reduction targets agreed by the industrialised states (the calculation includes the supplementarity rule and the disappearance of demand from the U.S.), some 1.3 billion certificates could be generated by the end of the first Kyoto Protocol commitment period. It is easy to see that the reduction targets proposed by the IPCC and set out in Copenhagen for industrialised states – between 25 and 40 percent by 2020 compared with the base year 1990 – could have supported the further development of the carbon market.

It is evident, however, that a business as usual continuation of the carbon market based on an unchanged Kyoto Protocol will not work. There are three reasons why:

1. Some industrialised states are unwilling to accept emission reduction targets either at all or up to their fair share. Achieving the envisioned 25 to 40 percent reduction remains a distant goal almost right across the board. As a result, the potential demand on the global carbon market would have to be generated by a small number of states.
2. Equally important is the transfer of the focal point of global greenhouse gas emissions away from the Kyoto industrialised states and towards the emerging economies. Added to this comes the refusal of Japan, Canada and Russia to sign up for the second Kyoto com-

mitment period. The binding reduction targets set out in the Kyoto Protocol will in future cover only about 15 percent of global emissions.

3. The global emission reduction target set in Copenhagen was still way below the levels that would have been needed to achieve the 2° target. It thus remains to be seen whether this year's negotiations on the second commitment period (CP2) will assist a better result.

The development of demand in the EU does not, however, depend solely on the dynamics of the international climate change negotiations.

Whether the decision on the second Kyoto commitment period is reached this year at the climate summit in Doha and whether it results in the EU actually adopting its conditional 30 percent target is, as is already known, reliant on the ability of the European states to reach agreement. If the 30 percent target is adopted and becomes reality, it would make sense for the EU to think about ways and means of using offsetting. But should the current 20 percent target be retained, it must be assumed that demand in EU states and the number of companies operating in the carbon market will be low.

When it comes to developing the new market mechanisms, the level of demand on the global carbon market will be decisive. With the ongoing lack of or only limited demand, pilot measures can only be initiated in an equally small scale that in no way constitutes a roll out.

One key prerequisite for developing and piloting NMM is undoubtedly that there are signs that demand will arise at a later date. The necessary legal basis can be established in that, firstly, NMM-generated certificates can be counted in CP2 (as proposed in Durban) and, secondly, allowing them to be counted towards reduction targets from 2020 onwards can be provided for in a new climate change agreement. A 'prompt start' decision as arrived at for the CDM could be adopted to this end, and this could generally be decoupled from the adoption of a 2020 climate change

JIKO Analysis

Why new market mechanisms?

Greater inclusion: Emerging economies like South Africa will in future implement more of their own climate change measures. New market mechanisms could prove a meaningful supplement.

Photo: medioclubsouthafrica.com/Sasol



agreement. The risk would then lie with the user. This was de facto the case for market participants prior to the Kyoto Protocol entering into force.

But back to the question of why the reformed CDM should not suffice and spare everyone the effort of negotiating and developing the NMM. One reason that should not be overlooked lies in the dynamics of the debate on offsetting, the carbon market and the CDM, which has given the CDM a poor image. Apart from general criticism of market-based mechanisms, which the NMM also comes up against in the negotiations, the CDM had to cope with the mistakes and problems of a new instrument. In addition, the CDM was implemented purely as an offsetting mechanism. Ongoing CDM reform would, however, neither change the character nor the image of the mechanism quickly enough.

In contrast, new market mechanisms allow not only a different level of burden sharing between developed and developing countries, they also offer an inherent scaling up of emission reductions. The following considerations appear meaningful in respect of establishing a new market-based mechanism:

1. The new mechanism should generate additional emission reductions compared with the prevailing reduction targets for the industrialised states.
2. New market-based mechanisms rely on overcoming the project boundaries of CDM investments in favour of larger industry segments. They thus offer an inherent scaling up of emission reductions.
3. Better management and integration into the climate change policies of host countries is both required and fostered by the NMM framework.
4. With a well thought through design, a sectoral approach can reduce the risk of windfall and transfer effects in individual projects.

For successful implementation of the new NMM instrument, the following appears necessary:

1. When introducing NMM offsetting, sufficient demand for such offsetting certificates must be generated in that the mechanism becomes part of any future climate change agreement.

JIKO Analysis

Why new market mechanisms?

2. A portion of the emission reductions achieved with these measures must be used by the respective host country towards its own climate change targets or be set aside if the country has no agreed targets.
3. The portion of certificates counted towards a country's reduction target must vary in relation to that country's economic capacity.
4. In the longer term, it will be necessary for the offsetting portion to be reduced.
5. Of key importance is the issue of adequate MRV and the development of more stringent accounting rules, which are ultimately a prerequisite for overcoming the project boundaries of the CDM. To generate certificates at sectoral level, robust sectoral emissions inventories must be in place.
6. In order to follow the CDM's example of a mechanism releasing investment and creative potential, the issue of attributing emission reduction efforts and their monetary remuneration must be clarified. This applies especially to the management of individual reduction activities which contribute to achieving the overall target without them being able to ensure that the entire segment achieves the ultimate target. If the issuance of certificates or other remuneration to individual investors is dependent on the entire sector achieving its emission reduction target (something investors cannot influence), NMM can hardly act as an incentive. This aspect is surely a core issue if the new market mechanism is to mobilise private capital and private sector climate change initiatives.
7. The NMM thus calls for a phased approach if it is to follow on from the CDM. Because the sectoral targets cannot be achieved by individual industry stakeholders, an additional governance level is needed – in addition to determining targets and the offsetting portion at macro level – which determines the distribution of emission reduction efforts and the remuneration of achieved reductions. And it

must be guaranteed that successful emission reduction efforts are remunerated in all cases independent of whether the sector reaches its overall target. Thus, with this objective, the NMM calls for stringent governing rules in the host country.

The questions of transition periods and the use of available knowledge and established structures make it evident that further development of the NMM must be based on existing structures in the current carbon market mechanisms. How this might be done must be at least touched upon in the discussions held in the coming months.

As regards the relationship between the new and existing market mechanisms, we conclude with Christiana Figueres' statement at the Carbo Expo in Cologne on May 30:

I can tell you for sure that the CDM will continue, but I can also tell you for sure that it will not be the exclusive market mechanism. I can also tell you for sure that the new markets are going to be based on the current market and they are going to incorporate the lessons learned. Why? Because none of us is dumb enough to take all of that knowledge and just throw it into the trash can. Furthermore, we don't have the time to completely reinvent the wheel. We need to take all the experience we have, we need to take all the knowledge we have and use it to exponentially help countries to get to the mitigation levels that they need to get to.

JIKO Analysis

What Design for the New Market-Based Mechanism?

Continued from p. 1

Table 1: Types of Proposed New Mechanisms

	What	Proposed By
Project-Based	Similar to CDM	China, Japan
Sectoral Crediting	Decoupled from specific activities or policies, credits are awarded if emissions from a sector are kept below a pre-defined level	EU, AOSIS, Norway, Papua New Guinea
Sectoral Trading	Decoupled from specific activities or policies, allowances are issued ex ante based on a sectoral target, with penalty for missing target	EU, AOSIS, Norway, Papua New Guinea
NAMA Crediting	Crediting of specific NAMAs or based on sectoral thresholds.	South Korea, (Switzerland)
"Net avoided emissions mechanism"	Compensation for not exploiting fossil fuel reserves	Ecuador

Five basic types of mechanisms have been proposed in the negotiations, as illustrated in the table below: a project-based system, sectoral crediting, sectoral trading, NAMA crediting, and a "net avoided emissions mechanism".

Project-Based

In particular China continues to maintain the position that new market mechanisms under the Convention should be project-based and the modalities and procedures should be similar to the CDM. Japan is in favour of both project-based and sectoral approaches.

Sectoral Crediting

Sectoral crediting and sectoral trading were initially proposed by the EU and have in the meantime also been taken up by many other countries. Sectoral crediting would be based on an agreed emissions threshold or "no-lose target" at sectoral level. This threshold could be either in terms of absolute emissions or intensity-based, for example in terms of emissions per unit of GDP, emissions per unit of electricity generated, etc. The developing country could then undertake

actions to reduce emissions, either unilaterally or with some international support. If emissions are reduced below the target, the developing country would receive credits. If the target is not achieved, there would be no penalties.

Sectoral Trading

Under sectoral trading a sectoral target would be set similarly as under sectoral crediting, but the developing country would receive tradable units ex ante, essentially equivalent to the assigned amount units (AAUs) industrialised countries receive under the Kyoto Protocol. If the country manages to reduce its emissions below its target, it would thereby achieve a surplus of trading units which it could sell. If the country does not achieve the sectoral target, it would need to buy trading units to cover the shortfall.

NAMA Crediting

As for NAMAs, from the negotiations so far it appears that NAMAs will be defined very broadly to include any type of action that reduces emissions, from specific investments to national policies such as financial incentive schemes or regu-

JIKO Analysis

What Design for the New Market-Based Mechanism?

lations. The proposal to credit NAMAs therefore initially seemed to be related to earlier discussions about allowing the crediting of policies under the CDM. However, in recent years most proposals for crediting NAMAs were hardly different from the proposals on sectoral crediting and trading. A country might implement individual NAMAs, but crediting and trading would take place on the basis of a sectoral emissions threshold.

A notable exception is South Korea, which in its 2011 submission does refer to crediting individual NAMAs. South Korea distinguishes NAMAs where emission reductions can be measured more or less easily, and proposes to use "success indicators" as basis for crediting in the latter case. For example, credits might be issued on the basis of the percentage of energy-efficient appliances or the average carbon intensity of the vehicle fleet. Switzerland in its 2012 submission also seems to imply that the scope of new mechanisms may not necessarily be sectoral, calling for "rules to define sectors or sub-sectors, policies and measures, technologies or other mitigation actions, as well as gases that can be part of the mechanism".

"Net Avoided Emissions Mechanism"

Finally, Ecuador has proposed a "net avoided emissions" mechanism for countries whose economies are so far based on extractive industries and who want to transform their economies. This proposal follows Ecuador's Yasuni initiative, by which it would commit to not exploit the fossil fuel reserves below the Yasuni national park if it is compensated for the revenue which it would thus forego. According to the submission, such compensation could be either in the form of direct compensation outside from the market, or through market mechanisms.

Questions of National Implementation

If the new mechanism is to operate at the sectoral level as proposed by many countries with the notable exception of China, it would operate at the government level, at least in the first instance, as private entities can hardly take responsibility for entire sectors. This would introduce an intermediary (the developing country governments) be-

Scaling up mitigation efforts: new market mechanisms are intended to go beyond the CDM's project-to-project approach by covering broad segments of the host countries economies.

Photo: © Chris-Up, Photocase.com



JIKO Analysis

What Design for the New Market-Based Mechanism?

tween the carbon market and those who actually undertake the investments. It would therefore be necessary for the developing country governments to implement appropriate policies to create incentives for investors.

As an alternative to governments implementing policies, sectoral mechanisms may also be devolved to the installation level. In principle, not only sectoral trading but also sectoral crediting mechanisms could be broken down to the installation level. The process would be similar to an allocation in a cap-and-trade system, but instead of allowances each installation would be given a crediting baseline.

On this basis, the following basic options can be conceived:

- **Government policies:**
The government receives emission units and implements non-ETS policies and measures to reduce emissions. These may be either mandatory “sticks” or voluntary “carrots”.
- **Installation-level crediting:**
The government receives emission units and defines individual targets for the installations within the sector. If an installation beats its target, it receives credits from the government. If an installation does not achieve its target, there are no penalties.
- **Binding installation targets:**
The government receives emission units and defines binding installation-level emission tar-

gets, possibly forming the basis for a national ETS.

- **Installations receive emission units directly:**

IETA has also proposed that instead of going through governments sectoral crediting might be established with a direct relation between the installations and the international authority. In this version, installations would receive credits directly from the international authority if they beat their installation-level crediting thresholds.

These different options are illustrated in Figure 1. These are prototypical archetypes; in practice overlaps and combinations are likely. In particular, even if a binding ETS is implemented, it is likely that other policies will also be pursued in parallel, as is done in the EU.

As summarised in the companion article, „New Market Mechanisms Have a Stony Road Ahead“, however, there continue to be fundamental differences of opinion between countries and there is therefore no indication yet what shape the new mechanism may ultimately take.

International handling of emission units	Government receives emission units			Installations receive emission units
National implementation	Government Policies	Installation-level crediting	Binding installation targets	

Figure 1: Options for Implementation at Government or Installation Level
Source: Wuppertal Institute

JIKO Analysis

New Market Mechanisms Have a Stony Road Ahead

Countries have been discussing “various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions” in the Ad-hoc Working Group on Long-Term Cooperative Action (AWG-LCA) for several years already. Nevertheless, discussions have so far made little progress as countries have strongly different positions. JIKO Info gives an overview of countries’ positions and what prospects there are for moving forward with new mechanisms.

The discussions on new mechanisms have in particular been promoted by industrialised countries, who have taken the position that most of the financial support needed by developing countries could and should be delivered through the carbon market. In addition, many industrialised countries are dissatisfied with the existing CDM. On the other side, many developing countries have been rather sceptical towards new mechanisms. While some see scaling up market mechanisms as a slippery slope towards adopting

legally binding targets, some of the left-wing ALBA countries (the Bolivarian Alliance for the Peoples of our America) even reject market-based approaches in general.

There are further divisions among the proponents of new market mechanisms. On one side, in particular Japan, New Zealand and the USA have advocated for a rather open framework for NMM without specific definitions. The aim is to allow countries who develop bilateral mechanisms, as Japan is already doing, to count the emission reductions from these mechanisms towards their UNFCCC commitments. On the other side, European and developing countries have advocated for a top-down definition of the NMM at UNFCCC level in order to maintain common standards, comparability and environmental integrity.

In Durban, Parties agreed on decision text that accommodates both avenues. The decision on the one hand defines a new market mechanism that is to operate under the guidance and authority of



Market or non-market approach? Especially Bolivia is at the forefront of the left-wing ALBA states when it comes to opposition against market-based mechanisms. Photo: Courtesy of IISD/Earth Negotiations Bulletin

JIKO Analysis

New Market Mechanisms
Have a Stony Road Ahead

the Conference of the Parties (COP). The AWG-LCA is to develop modalities and procedures for this mechanism, to be considered at this year's COP in Doha. On the other hand, the decision notes that Parties could individually or jointly develop and implement market mechanisms in accordance with their national circumstances and requests the AWG-LCA to conduct a work program to consider the establishment of a framework for treatment of various approaches to enhance the cost effectiveness of mitigation actions. That is, the Durban conference decided both the establishment of a new top-down NMM as well as to discuss the establishment of a framework for bottom-up initiatives. Parties were invited to submit their views on both issues by the beginning of March and the AWG-LCA held workshops on both the NMM and the framework on 19 May.

In Bonn, Parties were expected to define the work programmes on how to move forward with the new mechanism and the framework. However, the submissions and the discussions in Bonn revealed that the fundamental differences of opinion continue to be in place. On the NMM, while many Parties subscribe to scaling up market mechanisms to the sectoral level, China continues to maintain that the new mechanism should be project-based and similar to the CDM. When it was queried by the EU how this position is in line with the decisions from Cancún and Durban according to which the new mechanism should cover "broad segments of the economy", China replied that the CDM is covering various segments of the economy and that they therefore did not see a difficulty. Bolivia continues to oppose market-based mechanisms as a matter of principle. In addition, developing countries maintain that market mechanisms should only be available to Annex I Parties that adopt an internationally legally binding target, which will hardly be acceptable to the USA and the countries that have opted out of the second Kyoto commitment period.

On the framework, there continues to be a clear split between countries that argue for a cen-

tralised system and countries that are in favour of a decentralised system. The former include the Alliance of Small Island States (AOSIS), the EU and the Least Developed Countries (LDCs). They all maintain that all tradable emission reduction units need to be generated according to common standards and be fully accounted for as part of a rigorous, robust and transparent common accounting framework. The latter include Japan, New Zealand and the USA. They all suggest that countries should develop and implement their own standards in accordance with their domestic circumstances. The role for the UNFCCC would in their view be to provide basic principles and transparency in implementation, but it would be left to governments considering the use of credits toward meeting UNFCCC commitments to determine whether or not the credits are generated according to the principles agreed under the UNFCCC.

There were also different views on implementation details. For example, Bangladesh posited that the new mechanism should be focused on efficiency and renewables. AOSIS similarly stated that they were not prepared to move forward on the new mechanism without pinning down detailed rules on its contribution to sustainable development and eligibility for sectors and technologies. Such positions run counter to long-held positions of countries like Japan that no technology should be discriminated against.

Ultimately, Parties managed to agree on the following further steps:

- Parties and observer organisations are invited to submit further views to the secretariat by 6 July;
- The secretariat is to prepare a technical paper based on the submissions and the workshop;
- To focus discussions through workshops, where possible. No details on possible future workshops are so far available.

The AWG-LCA will have another session in Bangkok at the end of August / start of September. Whether this will include another workshop

JIKO Analysis

New Market Mechanisms
Have a Stony Road Ahead

or other discussions on this topic is currently unclear. Given the strong political differences among Parties, one may wonder whether it will in fact be possible to lay down the ground rules for the new mechanism and the framework by the end of this year as envisaged in Durban. The process will probably take several more years, similar to the development of the modalities and procedures for

the CDM, which took four years to complete. And there is as yet no indication what shape the new mechanism and the framework may ultimately take.

WSt

JIKO Analysis

A New Hungry Kid on the Block?

Australia as a Buyer in International Carbon Markets

by Frank Jotzo, Australian National University



Frank Jotzo

is Director of the Centre for Climate Economics and Policy at the Australian National University's Crawford School. He was an advisor to Australia's Garnaut Climate Change Review.

Australia's carbon pricing scheme starts on 1 July 2012. The scheme starts out as a quasi-carbon tax, but is to shift to a cap-and-trade scheme from mid-2015. It is expected that Australia will in part rely on imported carbon credits or permits to achieve its national target (5% reduction until 2020 against the level in 2000). Australia could potentially become an important source of demand for emissions reduction units. However, there are a number of economic, policy and political uncertainties that make it difficult to predict Australia's position in international carbon markets.

Australia's carbon pricing mechanism will cover around 60% of the country's greenhouse gas emissions. It includes carbon dioxide emissions from fuel use in electricity generation and industry, and household use of gas through upstream liability on fuel distributors. Greenhouse gas emissions from industrial processes, mines and waste are also covered. Some uses of transport fuels will be covered through changes to fuel taxes, and a carbon price will be imposed on synthetic green-

house gases via separate regulations. Agriculture and forestry are excluded.

The scheme starts out as a so-called "fixed price" scheme, with domestic emissions permits sold by the Australian government at a pre-determined price, rising from A\$23/tCO₂-equivalent (approximately €18/t) in fiscal year 2012-13 to \$25.40/t in 2014-15. There will be no international trading and no banking of permits during the three-year fixed price phase. The reason for this design is a political compromise that was struck between the minority government and the Greens party (independent members of parliament also supported the legislation). Fixing the price in the start-up phase also facilitated the calibration of financial assistance to households, which is achieved by re-distributing around half of the initial permit revenue back to households by way of income tax cuts and increased welfare payments.

From mid-2015 market pricing with international linking applies, but for three more years the price is to remain within a 'price collar'. The legislation

JIKO Analysis

A New Hungry Kid on the Block?

foresees a floor price of A\$15/t rising by 4 per cent real per year, and a ceiling price set A\$20/t above the expected international price (it remains to be clarified what type of units will be used as a benchmark) and rising at 5 per cent real per year. The rationale for the price floor is to improve confidence for low-carbon investments, in the context of volatile and fragmented international carbon markets that could determine Australia's price. The price ceiling thus functions as a reassurance to emitters by providing a firm upper boundary. Price floor and ceiling apply for the first three years of the trading phase, but could potentially be extended.

The legislation foresees that Certified Emissions Reductions from CDM projects (as well as RMUs and JI credits) will be eligible subject to the same rules on project categories that the EU currently has in place (that is, exclusion of forestry, HFCs, and N2O from adipic acid production), but without restrictions on geographical origin. Other emissions units, including possibly EU Allowances, may be declared eligible for acquittal in future. Australian liable emitters will be able to cover up to half their total emissions liability through im-

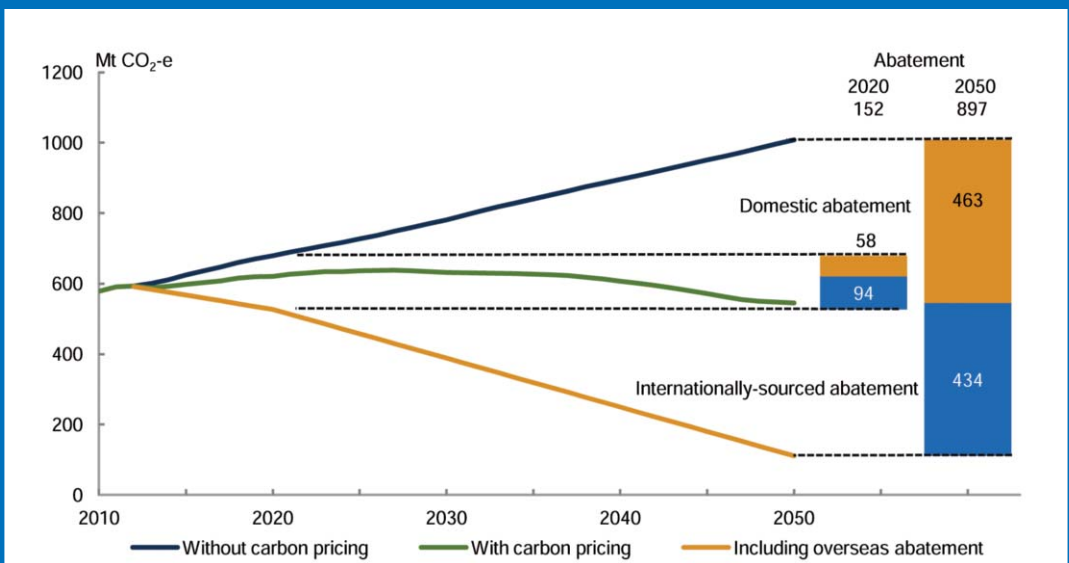
ported units, and this quantitative limit so high that it is certain not to be reached.

On current market expectations the price ceiling is unlikely to apply, but the price floor would apply unless CER prices were to make an unlikely dramatic recovery. The government has proposed that the price floor would be implemented by way of a "top-up fee" for acquittal of international emissions units, bringing the effective cost of credits up to the level of the floor price. The legislation also foresees a reserve price on domestic permits.

If implemented in this way, the price floor will allow unrestricted trading and use of CERs and other international emissions units. The government will aim to make sure that all domestically issued emissions permits will be sold, so that the demand for international units will be approximately equal to the difference between actual domestic emissions under the scheme, and the scheme cap (the amount of permits issued).

Modelling analysis by the Australian Treasury, conducted before the finalisation of the policy,

Figure: Australian Treasury modelling projections of domestic emissions and international trading



Source: Australian Government 2011, Strong growth, low pollution: modelling a carbon price, Treasury, Canberra.

JKO Analysis

A New Hungry Kid on the Block?

suggests that a carbon price in the \$20s to \$30s would cause Australia's domestic emissions to approximately stay constant, rather than continuing on its increasing trend (which is due to continued growth in population, overall economic activity and resource industries in particular). The Australian government's 2020 emissions target is a reduction in national emissions by 5% below 2000 levels, and up to 15% or 25% depending on other countries' commitments and progress on an international climate agreement. This declining target then implies a significant amount of emissions purchases from other countries, estimated by Treasury at 94 million tonnes per year by 2020 under a 5% reduction target (Figure). This is close to the average annual demand from the EU ETS during the period 2008-20, which has been estimated at 1.3 billion tonnes in total over that period.

However, this number is subject to a number of strong caveats. Firstly, the history of modelling of pollution pricing policies shows that ex-ante analysis usually underestimates abatement responses. Secondly, economic growth now looks likely to be less rapid than earlier assumed. Thirdly, Australia's emissions during the Kyoto I period 2008-12 were below its target, creating a surplus which might be used to reduce the amount of future international credit purchases. Fourth, the national-level emissions levels will not translate one-to-one to emissions under the scheme cap. Fifth, the domestic and international price levels will be different from those assumed in the Treasury modelling.

The overall implications on Australia's likely purchases in international markets are difficult to quantify, but it appears likely that demand will be less than the 94 Mt assumed by the Australian Treasury if the target remains at 5% - but possibly more if a more ambitious target was chosen. The biggest uncertainty however is political. Australia's climate change policy does not have bipartisan support. To the contrary, carbon pricing has been the subject of bitter political fighting, and has been a factor in several prime ministers and opposition leaders losing their jobs over recent years. The leader of the Liberal (conservative)

Party, presently in opposition, has taken a strong stand against carbon pricing and has vowed to repeal the carbon pricing legislation if and when in power. An election is due by late 2013, and on present expectations there would be a change in government. Repeal of the carbon pricing legislation would face significant procedural, practical and political hurdles, but is nevertheless a possibility. The opposition does support Australia's 5% national emissions reduction target, but wants to use non-pricing instruments to achieve it.

The underlying economics suggest that Australia would be a buyer of CERs and ERUs, perhaps at significant scale. But under the current situation of pervasive policy uncertainty, it is impossible to say with any confidence what Australia's actual position in international carbon markets will be.

JIKO Report

Trailblazer China?

People's Republic Has Ambitious Emissions Trading Plan

by Angelika Smuda, German Environment Ministry

**Angelika Smuda**

works at the German Environment Ministry's Legal Issues, Climate Protection and Emissions Trading Division (Kl I 2). Her main areas of responsibility are international and bilateral cooperation on emissions trading.

One event on the Carbon Expo 2012 programme was entitled "Perspectives and Trends in Emissions Trading Schemes: A New Pioneer Role for Asia-Pacific?" This is just one of many indications of how the geographic focus in using emissions trading to reduce greenhouse gas emissions has shifted in recent years. China is the weightiest actor in the Asia-Pacific region, and not only in respect of its greenhouse gas emissions. JIKO Info looks at the emissions trading plans in the People's Republic.

At the Climate Change Conference in Copenhagen, China announced its plan to reduce greenhouse gas emissions per GDP unit by between 40 and 45 percent by 2020 based on emission levels in 2005. This target has been made an integral part of China's national climate change programmes, and the country's fifth 12-year plan contains additional ambitious targets for the period 2011 to 2015. These include a 16 percent cut in energy use and a 17 percent cut in greenhouse gas emissions, both by 2015.¹

To achieve these targets, a phased system of emissions trading is to be introduced. The first phase involves the establishment of regional pilot systems in Guangdong and Hubei provinces, and in the cities of Beijing, Tianjin, Chongqing, Shanghai and Shenzhen. These all involve China's usual approach of piloting models in selected regions before their implementation at national level. The plan provides for emissions trading to begin in pilot regions in 2013 and then be expanded to national level in 2015.

This timeline is extremely ambitious and it must be assumed that it can only be adhered to in part. As part of a German Environment Ministry delegation that toured a number of the Chinese pilot re-

gions in early March, we were able to see for ourselves that work is well underway to create emissions trading schemes in those regions. The responsible experts have studied the EU Emissions Trading Scheme in detail to identify and learn from its successes and failures. But apart from detailed knowledge of the technicalities, little experience has been gained to date with market-based policy instruments. As in Germany prior to the introduction of emissions trading, local administrations and companies are familiar with policies that use technical standards, prohibitions and check-ups than with a volume-regulating instrument that leaves pricing and emission reduction strategy to the market and to individual companies.

The responsible national authority – the National Development and Reform Commission (NDRC) – deliberately issued no further provisions on the design of the pilot systems. It expects that, initially, different systems will be developed which to a certain extent will compete against one another. The most successful system will be used as a basis to develop the model for national implementation.

Because the different regions have very varied economic structures – from Hubei Province with its emissions-intensive heavy industry, to the special economic zone of Shenzhen and its ultra-modern services and high-tech providers – the resulting emissions trading schemes will reflect these in their design. This is especially the case with regard to the sectors required to take part in emissions trading. While, for example, in Guangdong and Hubei, energy providers and industrial facilities are obvious candidate sectors, the city states are considering the inclusion of large energy consumers in a similar way to the local emissions trading scheme in Tokyo.

1) INFORMATION OFFICE OF THE STATE COUNCIL, THE PEOPLE'S REPUBLIC OF CHINA, 22.11.2011: "China's Policies and Actions for Addressing Climate Change"

JIKO Report

Trailblazer China?

On the way to a low carbon economy: China's climate change plans are ambitious to say the least. Whether they will work largely depends on cooperation between the Chinese government and local administrations.

Photo: Mi Wenju / UNFCCC
Photo Contest



One highly volatile policy issue involves the setting of emission thresholds, or caps. The national targets for greenhouse gas emissions and energy efficiency have been broken out across the provinces relative to their development status. This gives the regions a goal, but they must then decide whether they wish to adopt an absolute emissions cap (as recommended by the NDRC),² or stay with an emission intensity target. Beijing, Guangdong and Shenzhen have already decided to use emission caps. Allocation of certificates will in all probability be based on historical emissions in each of the regions, and will be free of charge in many cases. Shenzhen, for example, plans to auction a portion of its certificates from the outset.

Almost all the regions plan to allow some form of offsetting using certificates from emission reduction projects. In May, the NDRC announced that it plans to issue national rules to this end. The rules will also govern voluntary offset projects as the NDRC has been announcing for the past three years. China will naturally draw on its vast experience with the CDM and will transfer project approval authority from the UNFCCC to the NDRC – the certificates will be called Chinese CERs (CCERs). The most suitable projects are those that have already been approved by the NDRC but are unlikely to complete UNFCCC approval by the end of 2012 and so will be unable to sell their CERs to participants in the EU ETS.

The voluntary market would also allow certificates to be used which have been approved by the NDRC but not registered by the UNFCCC. At the same time, the regions would be able to draw up their own offsetting rules and design localised project types. It is, however, questionable as to whether the regions would actually make use of this option because they would still not know whether certificates generated by those projects would be accepted for use in a subsequent national emissions trading scheme.³

Apart from the tight timeline, the biggest challenge the regional authorities face is the poor availability of data. Some regions plan to conduct surveys this year to improve their data resources. Germany also had to cope with the problem of inadequate data when embarking on emissions trading back in 2005. To ensure that China benefits from this and other experience gained in Germany, the German Environment Ministry's "Capacity Building for China's Emissions Trading Schemes (ETSs)" programme provides support at both national and regional level. The project will be carried out by GIZ in Beijing from 2012 to 2016. If China succeeds in mastering the outlined challenges, this could be a key step on the road to a global carbon market.

2) Point Carbon, 13.01.2012: "China tells pilot ETS regions to set absolute CO₂ caps"

3) Point Carbon, 10.05.2012: "China readies rules for domestic CO₂ offset markets"

JIKO Report

Climate Change Legislation in Mexico

Towards a National Emission Trading System

Regarding climate change policies Mexico has been among the most ambitious developing countries during the last couple of years. Since 2007, Mexico has put in place its National Climate Change Strategy (Estrategia Nacional de Cambio Climático, ENAC). Mitigation, adaptation and transversal policies for the energy sector were identified in Mexico's Special Climate Change Program 2009-2012 (Programa Especial de Cambio Climático 2009-2012, PECC). The PECC also includes the target to reduce Mexico's greenhouse gas (GHG) emissions by 51 million t CO₂-eq. per year by 2012 relative to business as usual (BAU). Recently, the country has finalized its Climate Change Legislation, which includes legally binding emission reduction goals.

The Mexican General Law on Climate Change (Ley General de Cambio Climático) was passed in

April 2012. The law lays down legally binding emission goals that were pledged in Copenhagen and Cancún. On the condition that Mexico receives financial and technological support from industrialised countries, Mexico has committed itself to reduce emissions by 30% until 2020 relative to BAU and by 50% by 2050 relative to emissions in 2000. Furthermore, the law establishes a national registry and rules for the measurement, reporting and verification of emissions as well as an Interministerial Commission on Climate Change and a climate fund – important cornerstones of national climate change policy are set.

For the carbon market, Mexico's General Law on Climate Change is particularly interesting as it lays the foundation for the creation of a voluntary national emission trading system in Mexico. This system may include international transactions with emission trading systems in other countries

or that may be used in international carbon markets such as offsets. Emission reductions are to be measurable, reportable and verifiable. No details are, however, included on the scope, timing or other elements such as options for offsetting of the cap and trade system.

The steps necessary for the establishment of a national emission trading system had already been identified in the National Climate Change Strategy. Among other things, existing emission accounting and trading systems like the Mexican Oil Company Petroleos Mexicanos, PEMEX's virtual emission trading scheme and voluntary GHG accounting and reporting system fostered by the Environment Ministry (Secretaría de Medio Ambiente y Recursos Naturales, SEMARNAT) have to be consolidated and expanded. Moreover,



Great transformation: Mexico is number 7 of the oil exporting countries in the world. Mexican greenhouse gas emissions amounted to about 616 Mt CO₂-eq. in 2010 (excluding land use change). Mexico aims at reducing its emissions by 50% until 2050. Photo: Chad Teer

further economic sectors are to be integrated within a national cap and trade scheme according to their competitiveness. As a final step for the establishment of a national emission trading system, the National Climate Change Strategy suggests to couple the national cap and trade scheme with existing international schemes.

The implementation of these steps has already begun. The grant of 350.000 USD Mexico has received via the World Bank's "Partnership for Market Readiness" (PMR) to develop national capacities for the realization of a carbon market will facilitate further efforts.

The PMR brings together developed and developing countries to share lessons learned and best practices and increase market readiness as well as the use of new and innovative market-based instruments for enhanced mitigation actions through the provision of grant funding and the piloting of market mechanisms. In Mexico, PMR support focuses on the establishment of a registry/tracking system for GHG reductions and the development and implementation of credited Nationally Appropriate Mitigation Actions (NAMAs), see JIKO Info 01/2011.

Mexico's General Law on Climate Change consolidates the country's institutional structure regarding climate change policies and is an important step forward in international efforts to fight climate change as well as a demonstration of ambition that may serve as an example for other countries. Expectations are high that with the newly elected president, Mexico's climate change legislation will persist.

HWH

Find out more about the Partnership for Market Readiness at <http://wbcarbonfinance.org/Router.cfm?Page=PMR&ItemID=61218&FID=61218>

Glossary / Abbreviations

All CDM/JI-specific terms and abbreviations are explained in detail in a glossary on the JIKO website at www.jiko-bmu.de/459

Impressum

Edited by:

Wuppertal Institute for Climate, Environment and Energy, Döppersberg 19 42103 Wuppertal

Responsible for the contents:

Christof Arens, Energy-, Transport and Climate Policy Research Group, Wuppertal Institute for Climate, Environment and Energy Tel. +49 202-2492-170

Editorial Staff :

*Christof Arens (CHA)
Thomas Forth (TF)
Wolfgang Sterk (WSt)
Timon Wehnert (TWe)
Hanna Wang-Helmreich (HWH)*

Subscription:

JIKO Info is distributed in electronic form only. Entry into the subscription list is free of charge.

Internet Address for subscription:

www.jiko-bmu.de

Translation:

Stocks & Stocks, Bonn except "What Design", "Stony Road Ahead", "Hungry New Kid", "CC Legislation Mexico"

Layout:

www.SelbachDesign.de

JIKO Info

covers current developments in the policy field project-based mechanisms in Germany and worldwide. The newsletter is published as part of the project JIKO at the Wuppertal Institute for Climate, Environment and Energy (see www.wupperinst.org/jiko). The editorial staff works independently from the JI-coordination unit at the German Ministry of the Environment.

JIKO Info is published quarterly and on special occasions.