

POLIMP - Exploring Climate Policy Knowledge Needs

The EU FP7 project “Mobilizing and transferring knowledge on post-2012 climate policy implications” (POLIMP)¹ aims at identifying and addressing, for a broad group of stakeholders, the knowledge needs about implications of possible directions of international climate policies.

For that, first, relevant stakeholder groups have been identified from a wide range of European countries, types of organisations and sectors. These stakeholders have subsequently been asked to describe, among others, their priority issues related to climate policy, the type of information they seek, frequency of information search, and usually consulted sources of information. The results of this analysis, which are undergoing further refinement and elaboration, are briefly summarised below.

In order to identify the knowledge needs on EU climate policy, a combination of survey techniques has been used. Interviews were conducted with twelve stakeholders, while 26 stakeholders filled in the online questionnaire.

indicated a need for additional information, data, or ‘knowledge’ on a daily basis. Common reasons for searching information for government officials include the refinement of arguments, deepening the understanding of policy areas and preparation for government statements. On the other hand, consultants and researchers mentioned that they often search for facts, figures and baselines within their area of expertise, as well as more general information about issues outside their direct work area.

Methods of searching and using information

For many of the stakeholders, a first step in searching for information is the consultation of their personal networks. Other main sources of information are general internet search engines, such as Google. All of the stakeholders use search engines, either as first source of information, or as additional ones to their personal network. Only 5 per cent of the respondents indicate to regularly use books or go to a library for searching information. Several of the interviewees indicate that the information in books is often outdated.

Virtually all of the interviewees state that it is not important for them if information is in their native language or in English. It is acknowledged that English is the most common and useful. The most commonly preferred type of knowledge presentation is text in pdf files, which are easy to glance through quickly, contain a search function, and are easy to print (fully or partly).

Priority issues

In order to structure the potential knowledge needs, the topics have been distributed among eleven ‘areas of expertise’. Figure 1 below shows the frequency of knowledge needs indicated per area of expertise.

Knowledge needs situations

Most of the stakeholders have

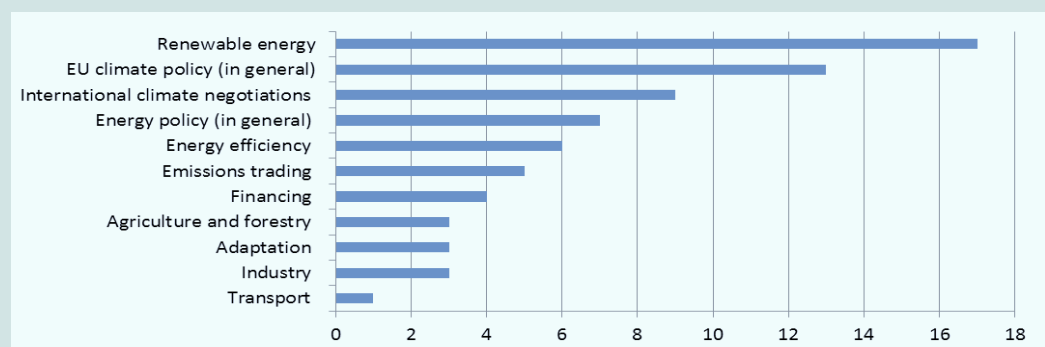


Figure 1. Identified stakeholder knowledge needs grouped by area of expertise

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The following table gives an overview of the most important knowledge needs selected by the stakeholders for each of the areas of expertise. Crosscutting knowledge needs that can be identified include that stakeholders are looking for cost-effectiveness of policies and measures, the international context of climate policy, vertical integration of policies across government levels, as well as innovative finance mechanisms.



Table 1. Climate policy knowledge needs identified by stakeholders categorised per topic

Renewable energy

- Cost-effectiveness of support schemes for renewable energy
- Costs development of renewable energy technologies
- Harmonisation of support schemes for renewables within and across EU member states
- Smart grids

EU climate policy in general

- Interaction of different climate policy instruments and different targets
- Cost-effectiveness of targets
- Carbon-pricing instruments (ETS, taxation)
- Actions in other parts of the world, compared to the European Union

International climate negotiations

- Climate finance generating mechanisms, innovative climate finance schemes
- Types and timescales of climate change mitigation targets
- Vertical integration between decision-making levels

Energy policy in general

- Electricity market design
- Energy price developments in different world regions, and its impacts

Energy efficiency

- Effectiveness of existing energy efficiency policy
- Possible energy saving obligation schemes and financing options
- Energy efficiency measures savings potential
- Access to capital for energy efficiency measures

Transport

- Increasing efficiency through intelligent transport systems
- Efficient integration of modal networks

Emissions trading

- Further harmonization of emissions trading scheme implementation across the EU
- Price stabilisation mechanisms, backloading, changes to the linear reduction factor
- Potential for and impacts of links to other emissions trading schemes around the world

Financing

- Incremental additional investment required in specific sectors
- Mobilisation of private financial flows
- Innovative finance schemes in an international context

Agriculture and forestry

- Sustainability criteria for biomass
- Indirect land use and LULUCF accounting;
- Carbon sequestration
- Fertiliser, manure and livestock management

Industry

- Competitiveness: carbon leakage impacts and related exemptions
- Sectoral innovation scope, reduction potential and costs

Adaptation

- Institutional setup and organisation of mainstreaming of adaptation
- Methodologies for estimation of costs and benefits of adaptation measures
- Effective tools and best practices for raising public awareness and public participation
- Indicators for the evidence base for adaptation policy decisions

Swedish Energy Agency issues call for CDM proposals

“Using a readily available, nationally endorsed and internationally managed tool”

On 12 December 2013, the Swedish Energy Agency (SEA) issued a call for CDM proposals, which will be open until 16 February 2014. With this call, SEA intends to contract up to 10 million CERs that are generated during the second commitment period of the Kyoto Protocol (2013-2020).

SEA manages the Swedish CDM and JI programme which will fund up to 40 million tCO₂-eq. as international carbon credits, as part of Sweden’s national greenhouse gas (GHG) emission reduction target for 2020. As per the Doha Amendment of the Kyoto Protocol, Sweden has adopted as a quantified emission limitation commitment for the year 2020 to reduce its GHG emissions to 80 per cent of its emissions in 1990.

Furthermore, Sweden has adopted a national target of reducing its emissions not regulated by the EU emissions trading scheme by 40%, thus aiming to over-achieve its Kyoto commitments. International climate investments and carbon market mechanisms are seen as an important tool for achieving this ambitious target and the use of international credits, such as through the CDM, will comprise one third of that achievement.

Ground-breaking standards, processes and knowhow

JIQ spoke with Mr Ola Hansén, the Head of the International Carbon Market Unit and the Swedish CDM & JI Programme at the SEA.

JIQ: The CERs to be purchased will be used for complying with Sweden’s national target for 2020. The call text also mentions development of the flexibility mechanisms and continued and expanded international climate cooperation as important objectives. Against the backdrop of internationally reduced CDM interest, why does the Government of Sweden consider the CDM an important instrument for international climate policy?

Ola Hansén: Sweden continues to use CDM as a tool for achieving ambitious targets. We see the reduced interest in using the CDM as due to the political context, the lack of ambition to drive demand for emission reductions, rather than due to a lack of interest in the mechanism itself. If targets are missing, tools to reach targets will inevitably become less interesting, regardless of how good these tools may be.

For us, in our context of ambitious targets, the CDM is still a useful tool for reaching this ambition. This is why

we continue to be interested in using CDM to realise its potential, in developing the CDM to maintain its relevance in changing contexts, and in supporting the CDM’s contribution to the evolution of new market mechanisms.

Even if the applicability of CDM and JI in their current form shrinks over time, we see many of their elements, especially those relating to monitoring, reporting and verification of emission reductions, being relevant also in the future, not only for market applications but also for international climate finance and national policy design. The ground-breaking standards, processes and knowhow developed in the context of CDM and JI, as well as their demonstrated ability to mobilise private resources for realising concrete mitigation actions, offers invaluable building blocks and lessons for scaling up mitigation action. These must be utilised as much as possible.

JIQ: Could you elaborate on why the Call focuses on not-yet-commission projects, while it may be simpler to purchase credits from already existing and registered projects?

Ola Hansén: We are open to considering also registered CDM projects worldwide but we will not purchase already issued CERs under the current call. Our emphasis on not-yet-commissioned projects and commissioned projects under the threat of decommissioning reflects our desire to incentivise new emission reductions to address the urgent need and insufficient momentum for further mitigation.

By leveraging finance for new mitigation action, we aim to narrow the 2020 ambition gap. We see CDM as a valuable tool for this purpose, given that it is a readily available, nationally endorsed and internationally managed tool embodying a decade of learning. We recognise that least developed countries and other underrepresented regions face specific challenges and many have only recently gained access to CDM. In such regions, we are open to considering also existing projects.

We also recognise that the current CER market price is insufficient to incentivise new investments in mitigation and we are willing to pay above the current secondary CER price to help projects off the ground. Having said this, we remain mindful of our objective of achieving cost-effective emission reductions through the Swedish CDM & JI Programme. The call is designed

Box 1. Overview of Swedish CDM/JI activities to date

The Swedish CDM & JI Programme has been contracting carbon credits for the Swedish government since 2002, bilaterally as well as through multilateral carbon funds. Sweden's engagement in carbon market mechanisms dates back even further: Sweden took part in Activities Implemented Jointly (AIJ) from 1995 to 2000. Currently, Sweden has contracted around 30 million carbon credits by 2020 through over 85 bilateral projects and programmes and eight funds, together covering over 50 countries. To date, more than 6 million credits have been delivered. Of the bilateral portfolio volume, 22% originate from Least Developed Countries (LDCs) and 5% from Small Island Developing States (SIDS). Renewable energy represents 55%, energy efficiency 31% and landfill and biogas the remainder of the bilateral portfolio volume. Sweden has ten bilateral PoAs in its portfolio, potentially generating over 5 million CERs for the country by 2020.

to serve as a price discovery mechanism to identify cost-effective mitigation opportunities.

JIQ: What project types are mainly eligible for this call? Will there be a specific focus on regions and host country characteristics, such as, income?

Ola Hansén: We welcome proposals at various stages, including both registered and non-registered projects. Individual CDM projects, as well as Component Project Activities (CPAs) under Programmes of Activities (PoAs), will be considered. Priority project types include renewable energy, energy efficiency and waste management. Our current geographical focus is on countries in Sub-Saharan Africa and Southeast Asia. Developing countries underrepresented in the CDM and least developed countries are of particular interest. Proposals from other host countries are also eligible but they are expected to represent a smaller share of shortlisted proposals from these countries under this call.

Leverage of private funding

JIQ: What are key project selection criteria? Have these changed compared to earlier JI and CDM projects under the first commitment period of the Kyoto Protocol?

Ola Hansén: We strive to compose a geographically balanced CDM portfolio which delivers high-quality, cost-effective emission reductions and our main focus has always been on renewable energy and energy efficiency. A focus on small and medium-sized projects has enabled us to contract a larger number of projects, thus promoting the diversity of our portfolio and experience.

The requested price per delivered CER will be one of the key benchmarks used for selection. Prices will be compared with other similar proposals. Proponents need to elaborate the role of carbon finance in the project and how carbon revenues will be used. We also consider the contribution to sustainable development and leverage of private funding, as well as the innovative and transformative potential of the proposals. We limit our contract volume as a risk

management measure. We do not impose a size limit to the underlying project.

Our objectives and associated criteria have not changed significantly over time. Our emphasis, however, has shifted over time, reflecting the development of our portfolio's geographic and project type distribution. For example, since a large share of our existing bilateral projects are located in China and India, new projects in these countries are expected to represent a very small share of the shortlisted proposals under the current call. External factors, such as the status of CDM rules and host country capacity, have also influenced our emphasis over time. For example, progress in PoA rules has enabled us to engage in thematic cook stove programmes that help to develop the mechanism and diversify our portfolio.

Socially responsible projects

JIQ: Could you explain the main steps in the project selection process and what will project partners have to do once the project proposal is approved?

Ola Hansén: The call has three phases: an initial screening phase for all incoming proposals, a due diligence phase for shortlisted proposals, and a contracting phase for approved proposals.

At the first phase, we assess proposals against price and other criteria based on information submitted on our standard template, shortlisting those that best contribute to the diversity, balance and cost-effectiveness of our overall portfolio. Shortlisted projects must sign a Term Sheet, including a fixed CER price offer, to qualify for the next stage.

At the due diligence phase, we assess the financial, environmental and social sustainability of the proposal based on more detailed information provided by the project proponent upon our request. The required information will vary across projects depending on their type, stage and other characteristics. A positive outcome will qualify proposals to the contracting phase, during which the terms of the Emission Reductions Purchase Agreement (ERPA) are negotiated.

We have standard terms, so negotiations are limited to project-specific issues, such as delivery schedules and milestones for entry into force.

In summary, the main tasks of the project partners are to: provide project-related information upon request to the SEA, develop a viable, environmentally sound and socially responsible project that meets CDM criteria, successfully implement the proposal as a CDM project, and monitor, report and verify its outcomes in accordance with relevant requirements.

JIQ: In terms of Sweden's GHG emissions, how big is this Call?

Ola Hansén: This call is part of an ongoing effort, launched in 2002, to meet Sweden's national climate targets. Sweden plans to use 40 Mt of international credits as part of its climate policy from 2008 until 2020. By aiming to contract up to 10 Mt, the current

call could thus achieve up to a quarter of the target volume for international credits.

Our origination activities will continue also beyond this call. The extent of such future efforts would depend on the performance rate of the portfolio.

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EU ETS Backloading Approved – Now Time for Structural Changes?

During 2013, political discussions on the EU emissions trading scheme (ETS) mainly focused on the 'backloading' proposal. With this proposal it was attempted to temporarily reduce the number of allowances on the ETS market so that allowance prices could recover. After a number of voting rounds the European Parliament agreed with the proposal in December 2013, which was followed by an approval by the European Council.¹ With this step, a short term solution can be operationalised, but the Commission will soon present proposals concerning a longer term solution for the current oversupply of ETS allowances.

Hurdles and breakthroughs

The final approval of the 'backloading' proposal by the European Parliament and the European Council of Ministers on 10 and 16 December 2013, respectively, marked the conclusion of a remarkable process which started in 2012 and which aimed at postponing the auctioning of 900 million allowances (equal to 900 million tonnes CO₂-eq.) in the short run and reintroduce these in 2019-2020. With this action, it is hoped that the estimated oversupply of ETS allowances (approximately 2 billion allowances during the current third ETS phase of 2013-2020) will be reduced and that allowance prices will increase again in the short run. During 2013, these prices had been below €5 per allowance (dropping from almost €30/allowance around mid-2008 to less than €10/allowance early 2009 and €17 in May 2011).

The process towards the approvals in December was characterized by a number of hurdles and breakthroughs. First, on 24 January 2013, the European Parliament's Committee on Industry, Research and Energy (ITRE) decided not to support the European Commission's proposal to retire 900 million allowances from the ETS during 2013-2015 and bring 300 million allowances back to the market in 2019 and 600 million in 2020. Second, on 19 February 2013, the backloading proposal received support from the Parliament's Committee on the Environment, Public Health and Food Safety (ENVI), which was considered of crucial importance for final Parliament approval. Third, despite ENVI's support, the European Parliament voted against the backloading proposal on 16 April 2013. Finally, the Parliament, in a full plenary session on 3 July 2013, decided to support 'backloading' by a vote of 344 for and 311 against. The final Parliamentary approval of the 'backloading' proposal on 10 December 2013 took place with 385 votes in favour of it (284 votes against, with 24 abstentions). As for the European Council, only Poland and Cyprus rejected 'backloading'.

Auction amendment

With the approval for postponing ETS allowance auctioning, the European Commission may amend the auction timetable to temporarily withhold 900 million allowances at maximum. For that, the European Commission presented three options in a non-paper (submitted on 21 November 2013):²

¹ http://ec.europa.eu/clima/news/articles/news_2013121101_en.htm

- Option A: reduce the annual amounts of allowances to be auctioned by 400 million in 2014 and 500 million in 2015 and increase auction volumes in 2019 and 2020 by 300 and 600 million, respectively. In this option the process of withholding allowances would be finished in 2015.
- Option B: the reduction of the auction volume by 900 million allowances will take place during 2014-2016: -400 million in 2014, -300 million in 2015 and -200 million in 2016. Similar to option A, the reintroduction of these allowances through increased auction volumes will take place in 2019-2020.
- Option C: should, due to unfinished procedural steps, the reduction of auction volumes not be possible before the second half of 2014, then “some flexibility concerning the volume of the reduction in 2014 could be foreseen, depending on when the reduction in volumes can actually start.” (p.4)

These options are summarised in Table 1.

On 8 January 2014, the EU Climate Change Committee (in which all Member States are represented) endorsed the proposal by the European Commission to reduce the auction volume in 2014 by 400 million allowances.³ For that it will be needed that auction calendars will be adapted by the end of March 2014. This will require (as requested by European Commissioner for Climate Action Connie Hedergaard) a shortening of the time that the EU Council of Ministers and the

EU Parliament’s Environment Committee usually have (3 months) for deciding on the proposed auctioning amendment. In case of later initiation of the ‘backloading’ step (after March 2014), the volume of auction reduction will be reduced during 2014 by 300 million allowances instead of 400 million.

Longer-term solutions

Despite the appreciation by several observers of the approval of the ‘backloading’ proposal,⁴ it is generally agreed that it will not solve the problem of a structural surplus during the third ETS phase. In 2012, in a note to the Parliament and the Council,⁵ the Commission identified a number of more structural surplus reduction options, such as:

- Increase of the EU GHG emission reduction target to 30% in 2020 as this would need a consequential amendment to the quantity of EU ETS allowances.
- Early revision of the annual linear CO₂ emission reduction factor (during 2013-2020 the emission cap for ETS installations will decrease by 1.74% per year).
- Extension of the ETS to other sectors.
- Limit access to credits from international carbon markets.
- Discretionary price management mechanisms.

In early 2014, the European Commission is expected to present a proposal to provide a longer term solution for the oversupply of allowances in the EU ETS market.

Table 1. Options for amendment of ETS auction amounts

Year	Volume of auction reduction (million allowances)		Volume of auction increase (million allowances)	
	Option A	Options B and C*	Option A	Options B and C*
2014	400	400		
2015	500	300		
2016		200		
2017				
2018				
2019			300	300
2020			600	600
Total	900	900	900	900

* The difference between options B and C is that in option C the Commission can introduce flexibility in the reduction of auction volumes should procedural steps for auction schedule amendments not be completed before the second half of 2014.

² Non-paper on the draft amendment of the Auctioning Regulation with regard to the implementation of back-loading - http://ec.europa.eu/clima/news/docs/2013112101_en.pdf

³ http://ec.europa.eu/clima/news/articles/news_2014010801_en.htm

⁴ See for instance the Association of Producer of Ecological Energy for some reactions to the voting result published on 8 July 2013: <http://apee.bg/eu-ets-back-loading-text-as-approved-by-the-european-parliament/>

⁵ European Commission, 2012, Report from the Commission to the European Parliament and the Council - the state of the European carbon market in 2012, 14 November 2012, COM(2012) 652 final.

Climate Strategies Presents Green Investment Schemes Market Overview

In a discussion paper published in September 2013, Climate Strategies estimates that during 2008-2012 around 458 million assigned amount units (AAUs) have been traded through Green Investment Schemes (GIS) with an estimated value of € 1.6 billion.¹ This is around one-third of the number of AAUs that Parties had planned to sell through GIS. The paper shows that although the market for AAUs has been highly diverse, Estonia and the Czech Republic have concluded most GIS deals with buying countries, while Poland has sold the largest volume of green AAUs. In terms of volumes, most of the green AAUs were purchased by Japan (government and private sector), Spain, Austria and the World Bank. Priority areas for selling green AAUs by Parties were energy efficiency and renewable energy in the buildings sector. GIS has been considered an attractive option for linking low-emission technology transfer to AAU trade.

In the Kyoto Protocol most Annex I Parties adopted quantified emission reduction or limitation commitments to be achieved during the commitment period 2008-2012. These commitments were defined as assigned amount units (AAU, i.e. maximum allowable emissions per year in tonnes CO₂-eq.). Parties could enlarge their AAU levels by purchasing GHG emission reduction credits through JI and CDM projects and by buying AAUs from other Parties; Parties with surplus AAUs could sell these to Parties with deficits.

As a result of the disintegration of their formerly centrally planned economies, GHG emissions in Central and Eastern European countries strongly decreased during the 1990s. This led to an AAU surplus of 12.6 billion (as estimated by Point Carbon in 2012, as the difference between actual GHG emissions and Kyoto Protocol AAU levels).² As a large share of these surpluses was not the result of specific environmental or climate policy making, it has generally been referred to as 'hot air'.

Soon after the adoption of the Kyoto Protocol, it became clear that potential buying countries felt reluctant to buy 'hot air' AAUs. In a reaction, a market

trend emerged to only trade AAUs if they had been earmarked as green: i.e. investing AAU revenues in low carbon technologies and measures. As explained by the Climate Strategies paper, by 2012, Central and Eastern European Annex I Parties had formulated plans for greening of 1.547 billion AAUs. Of these, 458.5 million green AAUs were eventually sold between 2008-2012. According to the paper, prices for green AAUs have decreased from around € 14 per AAU in 2008 to about € 10 in 2010 and were assumed to be between € 1 and € 2 per AAU in December 2012.

The AAU Market

By the end of the 2008-2012 commitment period, in 2012, a record amount of over 150 million AAUs were traded. This boost in volumes and drastic decline in prices came as a result of the lack of clarity on the future of the Kyoto Protocol. Therefore, it remained unclear to what extent surplus AAUs could be banked for use in future commitment periods.

Of the AAU selling Parties, the Czech Republic, Hungary and Ukraine were early movers in the markets. The Czech Republic remained active throughout the 2008-2012 period, while Ukraine and Hungary were not able to sell additional AAUs after 2009. Estonia began selling green AAUs only in 2010 but could conclude an increasing number of deals with significant volumes after that. Although Poland entered the AAU market relatively late, after 2009, it became a strong AAU seller, particularly during 2012 when it sold around 120 million AAUs. The Russian Federation did not become involved in GIS deals during 2008-2012, even though the Russian AAU surplus during the first Kyoto Protocol commitment period was estimated at over 5.8 billion AAUs. The paper explains this absence by pointing out the country's institutional and presumably legal constraints for AAU trading.

Table 1 shows that, in terms of concluded deals, Estonia and the Czech Republic have been the most successful sellers. According to Climate Strategies, both countries have a credible GIS in place with transparent rules for monitoring and verification of emissions reductions

¹ Tuerk, A., D. Fazekas, H. Schreiber, D. Frieden and C. Wolf (2013). Green Investment Schemes: The AAU market between 2008 and 2012, Joanneum Research and Climate Strategies, Climate Strategies Discussion paper, September 2013, Download: <http://www.climatestrategies.org/research/our-reports/category/36/378.html>

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² Point Carbon (2012). Carry over of AAUs from CP1 to CP2 – Future implications for the climate regime.

Table 1. AAUs sold over the period 2008-2012 (MtCO₂-eq. through International Emissions Trading/Green Investment Schemes*

	AAUs sold 2008-2012 (Mio)	Number of deals	AAUs available for GIS end of 2012 (Mio)
Bulgaria	7	2	193
Czech Republic	102.4	13	47,6
Estonia*	74.5	18	16
Hungary	13	4	37
Latvia	28.7	7	11,3
Lithuania	30	1	50
Poland	138.2	7	362.1
Romania	0	0	200
Russia	0	0	200
Slovakia	15 (50)*	3	77(42)
Ukraine	47	3	353
Total	458.5	58	1547

* Excerpt from Table 1, Tuerk et al , 2013, p. 7, with permission of authors

and financial flows. In general, according to the Climate Strategies paper, the extent to which Parties have used GIS for greening of AAUs has been determined by a Party's physical project potential, institutional capacity, legal constraints, eligibility criteria for trading AAUs under the Kyoto Protocol,³ and the Party's reputation.

At the demand side, the largest buyers have been Japan (the government and private companies) and Spain, followed by Austria and the World Bank (which purchased on behalf of governments). In 2012, Japanese private entities purchased around 130 million AAUs (used for domestic voluntary climate target purposes), the Government of Japan bought over 70 million AAUs and Spain added around 115 million AAUs to its own AAU amount under the Kyoto Protocol. As is shown in Figure 1, while the Japanese public and private buyers had been active AAU buyers since 2009, Spain significantly accelerated its AAU purchases in 2012.

AAU-technology swaps

In terms of type of AAU transactions, the paper concludes that most AAU selling Parties aimed at greening programmes in sectors and areas that have been difficult to address by JI (for reasons of JI eligibility criteria, process costs, project scale, etc.).

Examples of such sectors and areas have been energy efficiency and renewable energy technologies in the built environment.

In addition, the paper points out that AAU/technology swaps have become a major option during 2011-2012. Exchanging AAUs with low-emission technologies has been considered a relatively attractive transaction option as it enables AAU selling Parties to accelerate low-emission technology innovation within its country contexts and provides AAU buyers with opportunities to enter new markets for their technologies (e.g. Japanese companies providing electric cars to Ukraine and Estonia as part of GIS deals).

How green are GIS AAUs?

The Climate Strategies paper concludes that, in most cases, the proceeds from AAU sales have thus far covered only part of the investment costs of the greening activities in AAU selling Parties. The remainder of the cost had to be financed either through capital markets, state subsidies, or by the beneficiaries themselves. Raising such co-funding has proven to be difficult, in particular during the economic crisis.

³ For instance, Ukraine, Romania and Lithuania were suspended from AAU trading under the Kyoto Protocol for lacking compliance with protocol Articles 5 and 7 (dealing with having in place national GHG inventories and establishing a Party's AAU).

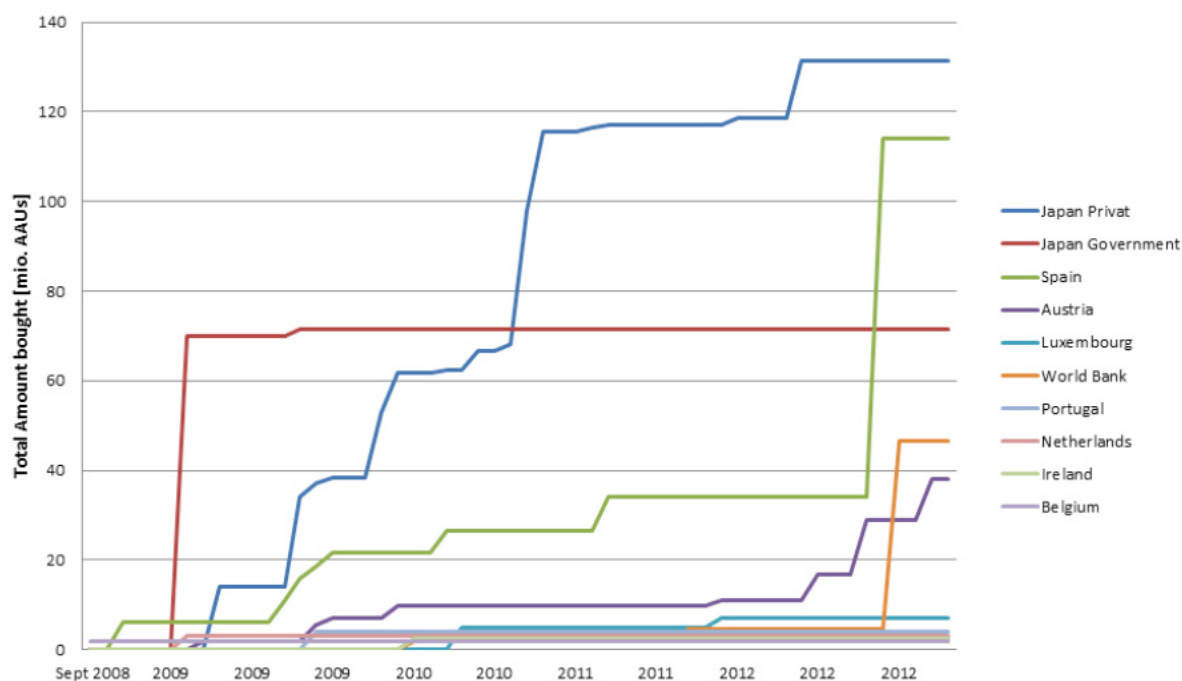


Figure 1. GIS trade volumes of AAUs - buyers (Tuerk et al., 2013, p.6)

The paper also concludes that the lower prices have had implications for the 'greening ratio' of GIS deals (*i.e.* how much GHG emission reduction does a green AAU represent?). Assuming that AAUs sold at prices below € 5 to 10 per tCO₂-eq. are unlikely to represent credible greening (*i.e.* one green AAU sold does not represent one tonne CO₂-eq. emission reduction), the paper concludes that in 2012 large amounts of AAUs were sold at very low prices and these were still called 'green', as the greening ratio seems to have lost importance for some of the buyers.

The paper finds that since AAU revenues has in practice been used to cover only a small part of green investment programmes, it is difficult to assess whether GIS AAU trades have resulted in additional investments and programmes or have provided 'top-up' funding to existing (and not necessarily additional) programmes. According to the paper, these experiences show that, in practice, there has not been a clear division between 'hot air' AAU and green AAU transactions with AAUs sold representing substantial GHG emission reductions. However, other less quantifiable criteria, such as the replicability of measures or early implementation of low carbon technologies with high long-term reduction potential, were mentioned by buyers as justification for small amounts of emissions directly reduced.

Conclusions

The paper draws the following conclusions on the AAU GIS market experiences between 2008 and 2012:

- Around 460 million GIS-backed AAUs have been

on the market, representing a value of around € 1.6 billion.

- The most successful sellers in terms of concluded deals have been Estonia and the Czech Republic. Poland has been the largest seller in terms of volumes.
- For most AAU seller countries energy efficiency and renewable energy technologies in buildings were major priority areas for GIS.
- The choice of a buyer country, in particular in the more recent deals, often also included factors, such as the interest in strengthening economic relations to the host countries and governments and paving the way for technology exports.
- The differentiation between hard and soft greening turned out not to be obvious and the approaches to calculate emission reductions are far from uniform.
- The experiences with GIS also showed that a market without international oversight, clear standards and a lack of transparency may promote least cost options regardless of their environmental integrity.

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ClimateTechWiki Platform for Technology Information Updated

ClimateTechWiki, the website with information about technologies for climate change mitigation and adaptation, has been recently updated and upgraded. The updated website now contains new technology descriptions, technology selection tools, national technology programmes, and networking support. This updating process has been coordinated by UNDP, jointly with UNEP Risoe Centre, utilising funding provided by REEEP. Content support has been provided by ECN and JIN.

Background

During 2010-2012, ClimateTechWiki (CTW) was developed by UNDP and UNEP with support from several partners as an online database of technologies for climate change mitigation and adaptation. The main aim of the platform was to familiarise decision makers and practitioners in developing countries with potentially suitable technologies for achieving mitigation and adaptation, as well as local and national development benefits.

Initially, ClimateTechWiki was developed mainly as a database with information about technologies' operational aspects, possible costs in various contexts, potential development and climate benefits, and market potential. It has been used by over 30 non-Annex I Parties, which conducted Technology Needs Assessments (TNAs) during 2009-2012 (see <http://tech-action>, under 'Databases'), among many other users.

8th REEEP Programme Cycle

In 2011, REEEP, as part of its 8th Programme Cycle, decided to support UNDP to extend the

ClimateTechWiki service from an online technology database to a technology transfer support and networking platform. Since then, a team consisting of UNDP staff, UNEP Risoe Centre, ECN and JIN have been working on a platform which offers:

- An enriched and extended technology data set (now with over **200 technology descriptions** for mitigation and adaptation),
- A range of **tools** to support technology selection, financing and planning processes,
- An overview of several **national programmes for climate technology development and transfer**,
- A **networking platform for decision makers and other practitioners**, containing, *e.g.*, technology-relevant policy documents, research papers and an overview of existing climate technology networks,
- A **forum** for discussion.

ClimateTechWiki provides space for registered users to add their own information to any of the platform's landing pages.

Reegle search engine

As part of the platform function, ClimateTechWiki combines internal technology data on its server with several external technology information sources so that it functions as a hub for supporting technology decision makers and practitioners. As an example, ClimateTechwiki technology descriptions contain recommended external sources by REEEP's search engine Reegle where further information can be found.



ClimateTechWiki Webinar on 25 February 2014

The goal of the webinar is to inform you about what ClimateTechWiki offers and to learn from you how best to promote CTW as a valuable resource, as well as to solicit thoughts and feedback for how ClimateTechWiki can improve.

Date: 25 February 2014

Time:

9.00 – 11.00 in New York and Washington, DC
15.00 – 17.00 in Bonn, Paris, Rome, and Luanda
21.00 – 23.00 in Bangkok, Jakarta and Phnom Pen

Should you need to convert the time of the Webinar to your time zone, please visit:

<http://www.timeanddate.com/worldclock/meeting.html>

Registration can take place at:

<http://climatetechwiki.org>

After registering you will receive a confirmation email containing information about joining the Webinar. If you have any questions, please send an email to Andrea Egan [andrea.egan@undp.org].



Webinar Agenda

Welcome (by UNDP)

- Why this webinar?

Introduction to ClimateTechWiki (by ECN / JIN, UNDP)

- Background + present status
- Walk through the website
- Concrete/proposed plans for further development

Linkages of ClimateTechWiki with other processes and platforms

- TNA project (by UNEP Risoe Center)
- REEEP – Reegle

Discussion

- Feedback on usability of present site
- Feedback on proposed additional content
- What else would you like to see added to ClimateTechWiki?
- Who would be additional, specific user groups in developing countries? How can ClimateTechWiki reach them?
- Opportunities for partnerships?

GreenEcoNet Innovation Lab - Identifying and Utilising Green Business Opportunities for SMEs



The GreenEcoNet project (funded by the European Commission under the FP7 Programme; <http://www.greeneconet.eu>) is building a European-wide green economy platform with a specific focus on small and medium-sized enterprises (SMEs). The platform will combine an online hub, including a database of good practices, case studies and tools, with a series of in-person dialogues and workshops. On 29 November 2013, GreenEconet organised an 'Innovation Lab' meeting in Brussels with participation of SME stakeholders. This article presents the main findings.

The Innovation Lab meeting 'Identifying and utilising green business opportunities for SMEs', hosted by GreenEcoNet partner CEPS, was organised around four main topics. The key messages on each topic are described below.

Background and objectives of GreenEcoNet

The discussions were introduced by Mr Corrado Topi (University of York - SEI), Ms Silvia Donato (DG Research - European Commission) and Ms Emily Benson (Green Economy Coalition). Key messages were the following:

- SME multipliers and networks will be utilised during the 3-year course of the GreenEcoNet project to reach the widest possible audience.
- Depending on the national and local circumstances, in some cases the availability of information only in English might be a significant limiting factor for the engagement of local SMEs. Thus in the long-term, the project team will need to find ways to integrate more languages in the platform.

Assumptions for building the platform

Based on presentations by Mr Sotiris Papadelis (University of Piraeus Research Center) and Mr Henning Sittel (Efficiency Agency of the German State of North-Rhine Westphalia), the following key messages could be noted:

- SME networking is important to reap green business opportunities, and it should tap into national and/or regional collaboration agencies/multipliers.
- The platform would need to be user-friendly and use the limited time of SMEs effectively.
- Regional and/or national consultancies or multipliers should be the starting point for promoting the platform and reaching local SMEs.
- The platform will need to be 'dynamic' and offer to the users 'easy-to-understand' information and funding options, which connect well with the local context of the SMEs.
- The platform can address the 'regulation' barrier by channeling to policy makers the key issues and

<http://www.greeneconet.eu>
Twitter: #GreenEcoNet
Google+
Facebook: GreenEcoNet
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concerns of SMEs as identified in the context of the project.

- A degree of collaboration is needed between the GreenEcoNet platform and the various available platforms that aim at greening SME business.
- Although some local SMEs may not be interested in sharing their best-practice examples, through the platform SMEs could identify local partners which could help them expand their services.

Introduction of the GreenEcoNet platform

Mr Sotiris Papadelis, Mr Martin Kloet (MKB Nederland), Ms Luisa Nenci (Global Eco Forum) and Mr Franz Brudl (Austrian Economic Chambers) introduced discussions on this topic. Key messages were:

- As main users, SMEs should be directly involved in the discussions regarding the platform.
- The platform should be promoted at national and local levels through Chambers of Commerce, EU delegations, SME multipliers and local organisations.
- The internet is an important source of information, but the platform should be also adapted to the national and local needs through support by regional groups or associations.
- The case studies should be practical and answer core questions for the SMEs such as how much a new practice or technology would cost.
- The platform should include, if possible, the option for SMEs to answer a number of questions related to, e.g., size of SME and location and then receive a list of suggestions for case studies.
- An online interactive forum (incl. FAQ) would facilitate SMEs to acquire the information they need.

Added value of the platform

Mr Corrado Topi summarised the discussions held. Two key points that emerged and which GreenEcoNet will address were:

- the knowledge gap for some companies wishing to become 'green', which includes
- the lack of information about financing opportunities for green business initiatives by SMEs.

The GreenEcoNet team will also map related initiatives (i.e., focus on green SMEs) at the EU and global level and develop possible interlinkages. Stakeholders also offered their support to the next steps of the platform development, e.g., through webinar discussions.

Alberola, E. and O. Gloaguen, 2013. Assessing the factors behind CO₂ emissions changes over the phases 1 and 2 of the EU ETS: An econometric analysis, Working paper n°2013/15 – October 2013.

<http://www.cdclimat.com/Assessing-the-factors-behind-CO2.html?lang=en>

This paper uses an econometric analysis based on a business-as-usual scenario to show that reductions of around 1.1 GtCO₂ are likely to have been achieved within the scope of the installations covered by the EU ETS. Between 600 and 700 MtCO₂ avoided would result from the two policies in the 2020 Climate & Energy Package: a decrease of around 500 MtCO₂ from renewable energy and a decrease of between 100 and 200 MtCO₂ from improvement in energy intensity. The economic downturn also played a significant, although not dominant role in the decrease in CO₂ emissions, estimated at 300 MtCO₂. Price substitution effects induced by coal and gas prices, under the CO₂ price incentive, also seem to have affected emissions, within an order of magnitude of around 200 MtCO₂.

Elsworth, R. and P. MacDonald, 2013. Aviation in the Emissions Trading Scheme: What happened in 2012 under Stop the Clock, Sandbag, UK.

http://www.sandbag.org.uk/site_media/pdfs/reports/Sandbag_Aviation_and_the_EU_ETS_2012_171213_1.pdf

In 2012, the scope of the EU ETS expanded to include emissions from the aviation sector. The report explains how a number of airlines, manufactures and trade groups increased their opposition to this inclusion and how pressure on policy makers has resulted in a temporary amendment by the EU of the ETS in 2012, known as 'Stop the Clock'. This would allow time for an international deal on tackling emissions from the aviation sector to be found. With 2012 aviation compliance data available the report takes the opportunity to look closely at what happened during the 2012 Stop the Clock period, and questions if the impacts on the sector really merited the resistance against inclusion of aviation in the EU ETS. The report then addresses the new EU compromise proposal, set to only cover EU airspace, and suggest what needs to happen next.

European Commission, 2013. Non-paper on the draft amendment of the Auctioning Regulation with regard to the implementation of back-loading.

http://ec.europa.eu/clima/news/docs/2013112101_en.pdf

Subject to an agreement between the co-legislators on the clarification of the ETS Directive, back-loading will be implemented through the adoption of an amendment to the Auctioning Regulation through comitology (favourable opinion from Member States in the Climate Change Committee (CCC) followed by scrutiny for Parliament and Council). The draft

amendment, put forward by the Commission in November 2012, suggested that an auction volume of 900 million allowances would be postponed as of 2013. Considering that auction volumes cannot be lowered before 2014, some Member States requested that the Commission looks into different options on how the distribution of the above amounts can be changed. The purpose of this non-paper is to set out these options in order to facilitate the discussion on the draft amendment in the Climate Change Committee (see also pp. 5-6 in this issue).

Gloaguen, O. and E. Alberola, 2013. One billion tonnes of CO₂ avoided since 2005 in Europe: Half due to energy-climate policies and half due to economic context, Climate Brief 32.

<http://www.cdclimat.com/spip.php?action=telecharger&arg=2197>

This brief estimates that CO₂ emissions generated by installations covered by the EU ETS decreased by 12.3 % since 2005, *i.e.* a decline by 2.6% per year during Phase 2 of the EU ETS while the emission cap increased by 1% per year. Based on a 'business-as-usual' scenario, the authors estimate that around 1.1 GtCO₂ were avoided between 2005 and 2011: around 30% of the reduction was the result of a fall in manufacturing output, while around 60% of the reduction was caused by the development of renewable energy and the improvement of the energy intensity.

Olsen, K. Holm, 2013. Sustainable Development impacts of NAMAs, UNEP Risoe Centre, Working Paper 11, Low Carbon Development series, Management Engineering Department, Danish Technical University.

[http://www.uneprisoe.org/~media/Sites/Uneprisoe/Publications%20\(Pdfs\)/SD%20impacts%20of%20NAMAs_LCD_WP11_FINAL.ashx](http://www.uneprisoe.org/~media/Sites/Uneprisoe/Publications%20(Pdfs)/SD%20impacts%20of%20NAMAs_LCD_WP11_FINAL.ashx)

Sustainable development priorities provide the context for Nationally Appropriate Mitigation Actions (NAMAs) by developing countries. While methods exist to assess the sustainable development co-benefits of Clean Development Mechanism (CDM) projects, no approach has yet been developed to assess the sustainable development impacts of NAMAs. This paper argues for a new integrated approach to assess NAMAs' sustainable development impacts that consists of sustainable development indicators, procedures for stakeholder involvement and safeguards against negative impacts. The argument is based on a review of experience with the CDM's contribution to sustainable development and a comparison of similarities and differences between NAMAs and CDM. Five elements of a new approach towards assessment of NAMAs sustainable development impacts are suggested based on emerging approaches and methodologies for monitoring, reporting and verification (MRV) of GHG reductions and sustainable development impacts of NAMAs.

Sandbag, 2013. Europe's 2020 confidence trick: Room to grow emissions under the current climate targets, Sandbag, UK.

http://www.sandbag.org.uk/site_media/pdfs/reports/Sandbag_2020_Confidence_Trick_09122013.pdf

This note explains that on the basis of the GHG emission budgets agreed under the Effort Sharing Decision (22,687 MtCO₂-eq.) and the EU ETS phase three (15,603 MtCO₂-eq.), as well as the carryover of phase two ETS allowances (1,868 MtCO₂-eq) and unused ETS offset budget, the total GHG emission budget within Europe during 2013-2020 amounts to 40,711 MtCO₂-eq.). The note then estimates that European GHG emissions would need to grow by 2.2% per year to use up all emission rights in the carbon budgets. According to the note, this would allow Europe's emissions to grow 19% above current levels by 2020, which would bring EU emissions back up to somewhere near 98% of 1990 levels, reversing most of Europe's progress to date. The note furthermore explains how such a development could undermine the 2030 target. The note recommends that EU leaders increase their 2020 commitments in time and agree to reduce emissions 30% below 1990 levels by 2020 (25% domestic, 5% international).

Spalding-Fecher, R., 2013. National policies and the CDM rules: options for the future, A report commissioned by the Swedish Energy Agency, Climate Policy Research Programme.

<http://www.energimyndigheten.se/Global/Internationellt/Carbon%20Limits%20-%20National%20Policies%20and%20CDM.pdf>

The question of how to consider national policies in baseline and additionality determination has been a controversial one since the early days of the CDM. As the climate regime evolves to include additional carbon market mechanisms and support for domestic action, this question becomes both more important and more complex because of the potential for interaction between different mechanisms and policy instruments. At the same time, the slow pace of negotiations on new mechanisms may open up more opportunity to push the boundaries of the CDM. The purpose of this paper is to explore options and provide recommendations on how the CDM rules and practices on national policies could be changed both to increase the transparency and the integrity of the CDM; to explore how national policies may be addressed in new mechanisms; and to address the potential interactions with new carbon market mechanisms and support programmes.

Tuerk, A., D. Fazekas, H. Schreiber, D. Frieden, and C. Wolf, 2013. Green Investment Schemes: The AAU market between 2008-2012". ClimateStrategies Discussion paper September 2013.

<http://www.climatestrategies.org/research/our-reports/category/36/378.html>

The report estimates that the formerly centrally planned economies – Central and Eastern European countries, Russian Federation and Ukraine – have an estimated 12,6 billion surplus of carbon emissions rights under the Kyoto Protocol. Article 17 of the Kyoto Protocol provides for the trade of assigned amount units between Annex-I countries to comply with their emission reduction targets and in practice most of this trading takes place via Green Investment Schemes (GIS). This report assessed the strengths and weaknesses of GIS, its role as a carbon finance instrument and recent market dynamics along with seller and buyer countries' strategies (see pp. 7-8 in this issue).

UNDP, 2013. Standardised Baselines Guidance Note, United Nations Development Programme MDG Unit, Energy and Environment.

<http://www.undp.org/content/undp/en/home/librarypage/environment-energy/mdg-carbon/standardized-baseline-guidance-note/>

This Guidance Note for standardised baselines is primarily intended for Designated National Authorities, Coordinating and Managing Entities, and consultants involved with the development of standardised baselines for CDM projects. The note focuses on the current UNFCCC rules and regulations (Standards and Guidelines) with an emphasis on establishing a Quality Management System. The note, among others, links the standardised baseline work with NAMAs. A standardised baseline can prove to be a highly effective carbon metric simplifying the MRV systems. According to the note, this will allow Parties involved (e.g. donor and host country) to have a common basis for emission reduction computation allowing for a win-win situation.

Vrolijk, C. and G. Phillips, 2013. Net Mitigation through the CDM, A report commissioned by the Swedish Energy Agency, Climate Policy Research Programme.

<http://www.energimyndigheten.se/Global/Internationellt/Net%20mitigation%20through%20the%20CDM.pdf>

With negotiations on a new climate regime underway, there is growing demand for increased contribution to climate change mitigation by all Parties, and this calls for carbon market mechanisms, including the CDM, to deliver net mitigation beyond offsetting (*i.e.* credits not used for offsetting Annex I emissions). With a review of the existing mechanisms underway, new approaches being developed under the UNFCCC, and negotiations ongoing on a global climate regime from 2020 onwards, the contribution of the CDM to net mitigation has been topic of lively, and timely, debate. This report explores a variety of options available for delivering net mitigation via the CDM and assesses these against six criteria, such as ease of implementation, wide applicability and transparent and accurate accounting.

The **Joint Implementation Quarterly** is an independent magazine with background information about the Kyoto mechanisms, emissions trading, and other climate policy issues. *JIQ* is of special interest to policy makers, representatives from business, science and NGOs, and staff of international organisations involved in climate policy negotiations and operationalisation of climate policy instruments.

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Abbreviations

AAU	Assigned Amount Unit
ADP	Ad Hoc Working Group on the Durban Platform for Enhanced Action
Annex A	Kyoto Protocol Annex with GHGs and sector/source categories
Annex B	Annex to the Kyoto Protocol listing the quantified emission limitation or reduction commitment per Party
Annex I Parties	Industrialised countries listed in Annex I to the UNFCCC. Countries not included in Annex I are called Non-Annex I Parties
Annex II Parties	OECD countries (listed in Annex II to the UNFCCC)
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction (Article 12 Kyoto Protocol)
COP	Conference of the Parties to the UNFCCC
COP-MOP	COP serving as Meeting of the Kyoto Protocol Parties
DOE	Designated Operational Entity
DNA	Designated National Authority
ERU	Emission Reduction Unit (Article 6 Kyoto Protocol)
EU ETS	European Union Emissions Trading Scheme
EUA	European Union Allowance (under the EU ETS)
GHG	Greenhouse Gas
JI	Joint Implementation
JISC	Joint Implementation Supervisory Committee
LCDS / LEDS	Low carbon (or emission) development strategy
LULUCF	Land Use, Land-Use Change and Forestry
NAMA	Nationally Appropriate Mitigation Actions
NAP	National Adaptation Programmes
PDD	Project Design Document
REDD	Reducing emissions from deforestation and forest degradation in developing countries
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBI	Subsidiary Body for Implementation
TNA	Technology Needs Assessment
UNFCCC	UN Framework Convention on Climate Change

JIQ Meeting Planner

10-14 March 2014, Bonn, Germany

Bonn Climate Change Conference - ADP
Contact: <http://unfccc.int>

18-20 May 2014, Cairo, Egypt

International Conference on Possible Impacts of Climate Change on Africa.
Contact: Dr Attia El-Tantawi, Cairo University, tel.: +21 112417501, e-mail: eltantawi@yahoo.com

25-29 May 2014, Beijing, China

Global Conference on Global Warming 2014.
Contact: e-mail: info@gcgw.org, <http://www.gcgw.org>

28-30 May 2014, Cologne, Germany

Carbon Expo 2014, organised by the World Bank Group, the International Emissions Trading Association (IETA) and Koelnmesse GmbH.
Contact: Ms Isabel Hagbrink, e-mail: ihagbrink@worldbank.org or Mr Cedric Ammann, e-mail: amman@ieta.org

4-6 June 2014, Beijing, China

International Energy Workshop 2014
Contact: e-mail: info@internationalenergyworkshop.org;
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4-15 June 2014, Bonn, Germany

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