



International Carbon Action Partnership

Summary Report of the China Conference on Greenhouse Gas Emissions Data Management in Energy Intensive Industries and the Power Sector

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Executive Summary

The *China Conference on Greenhouse Gas Emissions Data Management in Energy Intensive Industries and the Power Sector* took place in Beijing, China, on 12th and 13th October 2009. Over 120 participants discussed their experience and perspectives regarding the importance of measurement, reporting and verification (MRV) to achieving credible emissions reductions.

Six separate sessions were held at the conference, each one involving expert presentations followed by a panel discussion:

- ◆ **Plenary One:** *Energy and Carbon Data Management*, in which government experts from countries around the world shared their experience on GHG emissions data management in energy intensive industries and the power sector.
- ◆ **Plenary Two:** *Monitoring Capability*, examined what minimum MRV requirements are needed to ensure accuracy.
- ◆ **Plenary Three:** *Reporting Capability*, examined compliance and voluntary reporting and how to ensure credibility in reported data while safeguarding integrity and confidentiality concerns.
- ◆ **Plenary Four:** *Verification Capability*, examined experience with third-party verification and its comparison with internal verifications, inspections and controls.
- ◆ **Plenary Five:** *Carbon Accounting and Registry in China*, examined from China's perspective what it is doing on carbon accounting and registry.
- ◆ **Plenary Six:** *MRV Needs for a Developing Carbon Market*, examined possible scenarios for the future of the carbon market and what that means for MRV, including in terms of costs.

Overall, the following key points were made during the conference:

- ◆ China is working with countries and organizations around the world to share lessons and avoid mistakes as it develops its own MRV but it still faces many great challenges. These relate to its complex industrial make-up and level of development which makes the collection, management and calculation of GHG data tremendously difficult.
- ◆ Government leadership is critical in setting clear direction for industry to follow. More specifically this includes the provision of legislation that reduces uncertainties, guidelines and capacity building to assist industry, as well as a system of rewards and penalties to ensure accurate and trustworthy data is provided.
- ◆ Centralized data management systems enable good data flow and analysis, and can provide opportunities for automated quality checks, benchmarking as well as provide important information for target setting.
- ◆ Whilst the need for third-party verification was shown to be different within different MRV programs depending on what the data was for, verification was shown to have important benefits not only to improve the quality and reliability of data, but also to help more effectively link energy and material costs with reduced emissions.
- ◆ The use of international standards and methodologies is important as it enables greater cooperation, accountability and trust to develop between countries as well as within carbon markets.

Introduction

From 12th to 13th October 2009 the International Carbon Action Partnership (ICAP) held its *China Conference on Greenhouse Gas Emissions Data Management in Energy Intensive Industries and the Power Sector*. The conference took place in Beijing, China and was co-hosted by the Energy Research Institute (ERI) of the National Development and Reform Commission (NDRC) and the Innovation Center for Energy and Transportation (iCET). Supporters of the conference were the Chinese Academy for Environmental Planning (CAEP) and the Center for Environmental Education & Communications (CEEC) both from the Ministry of Environmental Protection (MEP), China Business Council for Sustainable Development (CBCSD), City University of Hong Kong, Nanjing University, Natural Resources Defense Council (NRDC), Tsinghua University, World Resources Institute China, and WWF China.

Its objective was to share experience of good data management, which is central to any global warming mitigation activity. Carbon accounting through accurate measurement, reporting and verification (MRV) is fundamental to achieving credible emissions reductions – whether the emissions reductions are allowances or offset credits to be traded or sold in a global market. Harmonizing or making standards compatible globally for MRV is key to ensuring that a “ton of carbon” has the same meaning throughout the world, and that the units are fully fungible. This was the first conference of its kind that brought together experts in MRV from China and overseas - both government officials and industry experts to engage in technical capacity building discussions on MRV.

Expert panel members presented their views on these issues at the conference. Their presentations formed the basis for the discussions in six conference panels and with conference participants. This report summarizes the presentations and discussions of each session followed by conclusions of the two-day conference.

1st Day Opening Address: Low Carbon Development

Ms Margret Kim of the California Air Resources Board (USA/California) welcomed attendees by stating that ICAP provides a partnership of countries and regions that are actively pursuing the development of carbon markets through the implementation of mandatory cap and trade systems with absolute caps. Its objective is to share knowledge, best practices and experiences between various countries and governments.

The welcome was followed by opening remarks from Mr Wenke Han from the Energy Research Institute of NDRC (China) who summarized the far reaching commitment and progress China has made in reducing emissions intensity, as well as the challenges which remain for China to develop appropriate policies to achieve results. Mr Franzjosef Schafhausen of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany) followed this by emphasizing the global backdrop against which China’s challenge is being played out. He outlined the urgency of action and the development of new and increasingly less expensive technologies available to cut emissions. He went on to emphasize the critical role MRV plays, particularly in Emissions Trading Schemes (ETS). Drawing on experience from the EU ETS he noted the progress made over the different trading periods, and looked forward to a global carbon market and the role that ICAP can play in sharing knowledge and experience with developing countries.

Plenary One: Energy and Carbon Data Management

The objective of the first plenary was to share experience on GHG emissions data management in energy intensive industries and the power sector.

The following points were put forward by the various presenters:

- ◆ GHG data management in the US is built on 15 years of experience from the power sector. In 1990 the Clean Air Act was amended to require US power plants to monitor and provide their GHG data to the Environmental Protection Agency (EPA) who then publishes it. Monitoring requirements specified hourly data (SO₂, NO_x, CO₂ emissions), heat input, operating load, oil and gas fuel flow and moisture data. Monitoring and quality assurance plans are required and verification of reported data is done by the EPA. Key lessons learnt from this were to provide incentives for quality data. For example where data is missing the EPA will use a conservative methodology to calculate the missing emissions thus creating a penalty for incomplete and inaccurate data. Standardized reporting is required, which allows for automated verification from the EPA. Software tools were provided to power plants to ensure consistency of data, as such plants enter their data and reference, and the software conducts its own quality control assessment. The EPA then reviews sector level data looking for anomalies which trigger a strategic and more analytical review. Aware that access to collected data and analysis is important for the public it was also found to be important to present data publicly in an easy to understand and meaningful way.
- ◆ It was noted that China's power sector is very different from the US where different boilers are used which require different emission factors. China also has a fragmented market with different environmental conditions and fuel sources, e.g. the composition and use of coal is different in China, making comparison difficult. Moreover, industrial facilities have different management capacity in China particularly those in remote areas where access to information and training is difficult. An update on China's MRV progress was provided which includes developing a GHG management system for some major industries, developing emission factors for different industrial sectors recommended by the IPCC, and improving industry's monitoring capacity. In answers to a range of questions it was explained that annual inventory GHG updates maybe possible in the future for China, as data becomes more easily available. Inclusion criteria for industry to report their GHG emissions are also being developed and emissions factors will be calculated for industry's use.

Plenary Two: Monitoring Capability

The objective of the second plenary was to discuss what minimum MRV requirements are needed to ensure accuracy.

The following points were put forward by the various presenters:

- ◆ The US EPA's new Mandatory Reporting Rule (MRR) was introduced to the conference. It was noted that this is first time the US has implemented such a comprehensive monitoring rule covering sources across the country. The EPA was instructed to create the Rule so that major emission sources would be reported. A key design challenge was how to develop a scope that covered upstream to downstream emissions. Beginning on 1 January 2010, facilities in the US will need to start monitoring and will have to report their data in 2011. There are 32 industrial categories covered by the Rule, including suppliers of fossil fuels and industrial

gases with high Global Warming Potential, and downstream sectors, some of which are difficult to monitor, such as manure management and mobile sources (e.g. car fleets). Facilities with less than 25,000 tCO₂e per year are not required to report their emissions. Industry will need to report at the facility level. The EPA estimates that emissions from 10,000 facilities contribute approximately 85 percent of the national total. There are tiers of monitoring within the system which also builds on to existing requirements (e.g. data obtained from CEMS and/or fuel mass balance calculations with default emission factors). There are levels of uncertainty within the system; however, this is not a compliance target driven system so the EPA has levels of comfort. Emission reports will need to be submitted annually. Electronic reporting allows data to be directly submitted from the facility to the EPA. Prior to the MRR many US states already had reporting systems and the EPA is working with state agencies to ensure harmonization. There are no third-party verifying requirements but reporters are required to certify the data they submit to ensure accuracy. EPA conducts some verification checks to provide a 'level playing field for all reporters.' Electronic verification using automated checks can also recalculate math, check for obvious errors and perform statistical analyses to identify outliers. Targeted audits can be conducted on the basis of analyzed results.

- ◆ It was noted that accurate MRV is fundamental if data can be trusted – a key consideration within the EU ETS where emission reductions are required. Key components to secure accuracy from industry are: a common platform (i.e. clear legislative requirements), well understood guiding principles, capacity building (i.e. an explanation of requirements), standardized forms and guidance, an approved monitoring methodology, a tiered system (to ensure flexibility for technical feasibility and reasonable costs), quality control and assurance, and proportional checks and inspections. From the experience of the EU ETS, capacity building was found to be important. To support UK industry to comply with the EU ETS there was a great deal of capacity building and coordination between government, regulators, verifiers and industry especially at the early stage so a common understanding was formed (e.g. an Emissions Trading Group, consultations/workshops, road-shows and helpdesks and websites for queries and guidance). Key to the roll out was producing standard forms and guidelines for operators to show them what they needed to get into place. The onus for control requirements was placed on the operator. Risk statements are required by the operator where risks for misstatement or inaccuracies may exist. Third-party verification is required and confirms the accuracy of reported data, thus providing a higher level of confidence and integrity of the EU ETS. Emissions trading provide incentives for continuous reductions, but it requires accurate and trustworthy data to ensure credibility.
- ◆ From 2007, 9.6 percent of Japan's GHG reduction target needs to be achieved by the private sector. Japan's Mandatory Greenhouse Gas Accounting and Reporting System require data to be reported to the government. Not all data is publicly disclosed, as company secrets are protected. Similar to the US system, there are no verification requirements within the system, as the program is based on driving reductions via awareness building. Thus data accuracy is not the key priority; however, if an entity fails to report data it is penalized. If reporting is linked to financial systems and penalties, such as Japan's Voluntary Emissions Trading Scheme (JVETS), then verification is required. JVETS participants receive a subsidy to achieve an emissions reduction target which, if not achieved, then they must return the subsidy and their name is publicly released. JVETS' MRV is based on international standards, such as ISO 14064 and 14065, thus common standards are applied, which help secure reasonable high-levels of accuracy. The system may also be linked to international systems in the future. In the 'Experimental Emissions Trading Scheme' where participating corporations set

their own emission reduction targets (absolute- or intensity-based) and make efforts to achieve them, verification is required only to those who are willing to sell their surplus allowances, as there are no penalties if the corporations fail to achieve their targets. The Experimental ETS has no uniformed guideline on MRV.

- ◆ In China, GHG-related data is captured by multiple government departments. Economic data is captured by local Development and Reform Commissions and local Environmental Monitoring Stations collect 'traditional' pollution data. Currently at the local level GHG data is not a priority. China's environmental pollution reporting system does not yet cover GHGs. Energy usage data is also difficult to obtain, as there is no requirement at the local level consequently there is no obligation for industrial facilities to report these data. As a result, there are no guidelines or standards for this type of data collection and processing.

Plenary Three: Reporting Capability

The objective of the third plenary was to examine compliance and voluntary reporting and how to ensure credibility in reported data while safeguarding integrity and confidentiality concerns.

The following points were put forward by the various presenters:

- ◆ The experience of the EU ETS in obtaining credible reported data from industry was discussed. It was noted that clear guiding principles for operators to follow are needed for government to drive a good MRV system within industry. They need to consider the principles of completeness, consistency (i.e. that data is comparable over time), transparency, trueness (i.e. highest achievable accuracy is obtained), avoid unreasonable costs to operators, faithfulness (i.e. data is trustworthy) and drive continuous improvement. Within the EU ETS, operator requirements (and therefore compliance costs) are also proportionate to the size of the entity. As such the UK system takes a risk-based approach which focuses on larger emitters who would also have the capacity to respond to reporting requirements and avoids placing burdens on smaller businesses that have a lower emissions profile.
- ◆ It was noted that a good MRV system should operate within a national strategic low carbon growth plan which provides long-term direction and continuously benchmarks performance to help drive lower emissions. The low carbon plan needs to have a long-term vision of how a country would like emissions to change over time. To support actions that reduce emissions, funding options also need to be considered and built into the plan.
- ◆ From industry's perspective, the benefit of national direction was emphasized. Policy direction provides clear signals to business that action must be taken thus reducing uncertainties. With commitment from government to drive emission reductions business is able to set their own targets based on strategic analysis of their operations. This can incorporate the implementation of energy efficiency, establishment of new business divisions for renewable energy investments and other options such as carbon capture and sequestration. An accurate GHG inventory is critical. For an international business this means utilizing best international MRV practices and standards.
- ◆ A brief summary of China's MRV evolution was presented. It was noted that the legal basis for environmental reporting began in 1989 with the promulgation of the Environmental Protection Law, which required defined pollution sources to be reported by companies to the competent authorities annually. These pollution sources cover 85 percent of the total discharge of pollutants within the jurisdiction of each environmental protection bureau. GHG emissions are not currently

included in China's national pollution registry and efforts to include them within the registry remain at an early stage, for example national emission factors still need to be developed. However, public access to environmental information is increasingly available. This follows international trends for greater disclosure of government information relating to environmental performance. The Chinese Government is also adopting information-based environmental policy instruments, such as naming and shaming poor performers. It was also noted that whilst China will not accept a national GHG emissions cap it may consider sectoral or regional reductions programs.

Plenary Four: Verification Capability

The objective of the fourth plenary was to examine experience with third-party verification and how this compares with internal verifications, inspections and controls.

The following points were put forward by the various presenters:

- ◆ It was observed that countries provide information on their mitigation activities based on their MRV guidelines and requirements. This allows international comparisons and helps define '*common but differentiated responsibilities*.' Countries can use performance information for target setting and analysis thereby providing information to assist government decisions-makers set appropriate targets which they can be measured against. Information can then be used to compare performance against international benchmarks. It was also observed that national security concerns may be affected but this depends on the datasets which need to be checked and reported. China's experience in meeting its new energy efficiency improvement target was considered to be positive. The MRV system which supported this goal is thought to be good and supported by national level authorities who sent verification teams to each province to check data accuracy.
- ◆ Verification requirements under the EU ETS were discussed. Verification is required if monitoring is in place. Verifiers must be independent, expert, and professional (good verifiers were partially defined as having a 'professional sense of skepticism'). The quality of their work also needs to be monitored by regulators. To ensure information can be accessed and shared cost effectively reporting and verification should be electronic-based from the very start of the process. Mistakes can occur, which typically are a result of 'cut and paste' errors, use of incorrect emission factors, un-weighted mean values, etc. These can be resolved by automated checks within the online reporting system, which allows the system itself to indicate whether something is incorrect or not. However, many verifications reports could still be improved. Common issues are inconsistencies between monitoring reports and the actual monitoring plans of installations; misstatements by operators; missing information, etc. Problems are commonly a result of insufficient knowledge by operators, potential conflicts of interest between operators and their verifiers, as well as cost/time pressures. To achieve improvements, various steps have been taken, including the introduction of harmonized accreditation for verifiers, improved communication between accreditation bodies and regulators, and providing opportunities to impose penalties for misstatements. It was noted that there are approximately 120-130 verifiers active in Germany. To improve cooperation between competent authorities within the EU a compliance forum has been established to support the common interpretation and implementation of European MRV regulations and to discuss harmonization which is likely to be improved in the future.
- ◆ Most GHG verification activities in China are related to the issuance of CERs

under the CDM. It was noted that while successful CDM project registration has pre-occupied project developers in China, it is only one part of the CDM project cycle. The successful issuance of CERs will depend on the strength of the project's MRV. The monitoring plan is defined in the registered Project Design Documentation (PDD), which includes baseline data (for some project types), project emissions and leakage, as well as environmental impacts. PDDs should establish a strong link between the project baseline and the monitoring methodology, as monitoring is the basis of future verification. The verification process for the CDM includes a desk-based review (review of the PDD and possible issuance risks, management manual, previous verification reports, installed capacity, government regulations, etc). This is then followed by an onsite assessment (review of the installation, monitoring equipment and the collected project-related records and cross checks) and personnel interviews. This is followed by a review of the CER calculations for any mistakes and errors.

2nd Day Opening Address: Global Carbon Market - State of Play

Mr Richard Baron of the International Energy Agency brought the conference up-to-date with the state of the global carbon market, noting the importance of the mechanisms and structures set up under the Kyoto Protocol and the emissions trading systems in developed countries creating demand for offsets imported from developing countries. He set out the steady increase in activity in the market highlighting the drivers of this activity. The CDM provide the only means to send a price signal in developing countries and is an important tool, but, looking at the example of the electricity sector noted the discrepancy between the expected impact of the CDM- 1.2 GtCO₂ emissions from 2003-2012 of which 0.4 to 0.6 GtCO₂ are from the electricity sector whereas the electricity sector emissions in Non Annex I countries amount to 60 Gt and have been growing rapidly. The international carbon market needs to grow to meet demands for finance. The ETS is an important tool. Changes are foreseen, and required on the demand and supply side. There are likely to be more stringent goals under the EU ETS, and new demand arising from new ETSs in developed countries; there is also a push to reform CDM and to introduce new, sector or policy-based market mechanisms. He noted the data management requirements of an expanded global market, but with less need for details, as statistical analysis may be adequate. For sector-based programs new definitions are needed. For intensity-based goals there is an increased requirement to collect emissions and industrial output data, which presents a range of technical difficulties. However, the need to have credible data is huge given the increased amount of credits entering the market.

Mr. Bo Shen of China's Natural Resources Defense Council noted that energy efficiency improvements represent a third of potential GHG reduction potential in China, but there are technical challenges for energy efficiency accounting. US protocols could be used internationally, as they provide a process through which you can set up and continually manage an energy efficiency program. China needs to conduct evaluations of its energy efficiency projects to establish baselines and analyze energy savings post-project. This will assist determine the cause of the savings, which might have resulted from unrelated productions changes. Mr. Bo Shen also described his recent cooperation with China's State Grid where training for government officials was provided. This is being expanded by working with the National Development and Reform Commission's training centre to develop a nationwide training program, as well as establish pilot project programs.

Plenary Five: Carbon Accounting and Registry in China

The objective of the fifth plenary was to understand the current discussion on what China is doing on carbon accounting and registry from China's perspective.

The following points were put forward by the various presenters:

- ◆ It was noted that managing energy programs in buildings requires ongoing management rather than simply retrofitting new technologies. Beyond the initial gain from retrofit there needs to be ongoing management to achieve reductions. GHG inventory goals led to improved inventory systems. Supporting the development of systems to access data, its flow and institutional arrangements for ensuring that data can be analyzed each year is the key focus for the US EPA's support in China. The EPA also transfers specific tools from the US to China for assistance in some specific sectors, such as agriculture and land use. The importance of accurate inventories underpins the entire national effort to reduce GHG emissions. The use of internationally recognized methodologies is important to support the system.
- ◆ The purpose of each GHG project requires the use of different accounting methodologies. It is important to refer to different international GHG accounting methodologies and standards, but also to consider data availability and emission factors in China. China's situation presents some difficulties, as it is a very large country so any MRV system needs to be appropriately simplified. The costs and benefits for industry also need to be considered, especially for the development of China-specific emission factors. It was discussed whether GHG emissions from Chinese exports should be accounted for in China; however, it was felt that this is a difficult issue, but other countries also need to know that GHG emissions from China are not only a result of the Chinese people but also a result of international demand for products from China.
- ◆ The role of The Climate Registry in helping industry account for GHG throughout their operations was discussed. Its experience is increasing as the trend for GHG reporting at state and national levels is also growing throughout the US. The Climate Registry requires companies to use international standards for GHG reporting, such as the WRI/WBCSD's GHG Protocol. As a minimum requirement, participating companies are asked to utilize the protocol to calculate their Scope 1 and 2 emissions. As companies gain more experience with the protocol they often voluntarily expand their inventories to include Scope 3 emissions also. The Climate Registry also has a verification protocol to accredit verifiers. It provides technical services to companies to assist them in developing their footprints. As such they provide a full suite of services and tools for companies at all stages of their understanding – from beginner to expert levels. They apply a risk-based approach to verification and provide an opportunity to correct misstatements. Based on their experience verification is typically expensive in the first year but this cost is often decreased in following years. Ultimately the biggest determinant of MRV costs is how well organized the company is. MRV has been found to help companies connect energy spending with production intensity, which is not always done in the absence of inventories.
- ◆ A good MRV system allows information to be publicly available, increase awareness, share experience, capacity building, accountability and trust. This supports international efforts to establish credible climate change mitigation, as well as help developing countries hold developed countries accountable for meeting their commitments. Widely adopted by many international and national GHG programs, the WRI/WBCSD's GHG Protocol provides industry with common accounting standards and guidance for the preparation of a GHG emissions inventory. Under development is a new protocol for accounting for GHG emissions

within supply chains and products. The WRI is also developing a value chain standard and life cycle standard. The WRI is engaged in a number of programs in China such as low carbon vehicles and the development of life cycle standards and tools. It is also assisting to establish China's 1st carbon registry in Guangdong Province in Southern China. Questions were raised about the multitude of GHG reporting methodologies available for companies, which might result in confusion for Chinese companies. However, it was highlighted that whilst there are many GHG programs most accounting systems are very similar and are underpinned by the approach laid out in the WRI/WBCSD's GHG Protocol. It was also observed by participants that many Chinese companies are basically waiting for the Chinese Government to tell them which MRV system to use.

Plenary Six: MRV Needs for a Developing Carbon Market

The objective of the sixth plenary was to examine possible scenarios for the future of the carbon market and what that means for MRV, including in terms of costs.

The following points were put forward by the various presenters:

- ◆ MRV is a critical building block for a Chinese carbon market. Building on the experience of the Chicago Climate Exchange, which is being replicated in China, a robust MRV system can bring private sector investors into China's low carbon economy.
- ◆ CDM has been well developed, but an observation was made that China remains at the low end of the carbon exchange with little input in the carbon price. It was felt that China lacks an advantage in the carbon market and its role is limited as a supplier of carbon credits, thus the development of the low carbon economy is constrained.
- ◆ The question was raised of what kind of carbon market does China need given its status as a developing country. The possibility of developing a Chinese voluntary carbon market was described. However, it was observed that currently the Chinese voluntary market is a commodity market and not yet a financial market. For China, the challenge is how to develop this voluntary market given that it does not have sales advantages. It was suggested that to solve this problem China needs to develop new standards along with an information network to create a platform for voluntary reduction credits, such as pricing, settlement and trading. A strong MRV is therefore critical for this.
- ◆ Climate change was noted to be one of three serious environmental challenges facing China. China's commitment to tackling climate change is based on the fact that developed and developing countries have a large difference in energy consumption, thus a shared but differentiated responsibility. This is also reflected in China's provincial profile where coastal provinces also have higher energy intensity than most inland provinces. China's voluntary commitments are focused on high consuming industries where there are high-levels of energy intensity. This also builds on China's experience with establishing SO₂ trading programs which started in mid 1990s.
- ◆ The UK's experience in establishing and maintaining its GHG inventory was shared. The reason for having an inventory is to ensure the accuracy and transparency of data. The UK's centralized GHG data management system was presented which is based on close cooperation between government departments based on a system of information sharing managed and developed through a national inventory system. It was noted that too many accredited verification

Disclaimer:

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bodies may lead to problems of data consistency, and may not an optimal use of resources. EU ETS was considered to be very helpful for compiling the UK inventory and provides some energy consumption statistics which are used during the compilation. These data supplement the national energy statistical data which underpin the GHG inventory, and can also be used as a quality control check on some of the national data. This underlines the benefits of a well designed system. It was estimated that the UK spends around GBP 1.25 million per year to maintain its MRV system, related to the national GHG inventory. An important message was to learn from the mistakes of others, e.g. when implementing installation specific MRV systems. Installation specific monitoring and reporting systems should be designed to deliver detailed data outputs that can be aligned with the IPCC sectors used to report GHG emissions to the UNFCCC i.e. separate reporting of process, combustion, transport, fuel consumption, etc. Data to support emissions trading can benefit GHG emission inventories, and vice versa. Systems can be set up for a reasonable cost and there are resources freely available developed for existing emissions trading systems. These components of existing systems can be used, including reporting and quality control systems. Quality is the key.

- ◆ Drivers for CDM developers in the post Kyoto Protocol carbon market will focus on a wider range of different industrial sectors, which may indicate greater focus on technology such as energy efficiency, wastewater treatment, green buildings, etc. A clear message was observed that technology will play a more important role within future CDM. Whilst there are uncertainties post-2012 the demand for CERs remains stable. US initiatives affect project developers in China as the size of potential offset demand (possibly 1 billion tCO₂e per year). There are also performance-based standards in California, which do not require projects to demonstrate financial additionality. If there is a high demand for CERs which are performance-based, there needs to be certainty about what is going to happen in order to provide appropriate MRV systems.
- ◆ It was noted that buyers need to know the emission reduction credits they are buying are real. This requires companies to have an internal focus to provide strong reliable company regulations and internal capacity for monitoring. The value for credits increases if there is a high level of transparency within the host country which is recognized by the market. System needs to be cost effective and robust (i.e. predictable).

Closing of the Conference

Closing the conference, Mr W Brent Christensen, United States Embassy Beijing (USA), stressed that MRV is one of the most important aspects of the climate change challenge – a challenge which is recognized by the Obama Administration. Mr Christensen stressed that adequately addressing the climate crisis will require collaboration between the US and China and it is in this spirit that the two countries concluded the Strategic and Economic Dialogue (S&ED) to discuss a wide range of bilateral, regional and global political, strategic, security, and economic issues between both countries.