
Delhi GHG Forum 2005: final narrative report

The Delhi GHG Forum 2005 was organized by a partnership of The Energy and Resources Institute (TERI), the International Emissions Trading Association (IETA), the World Bank's Carbon Finance Unit, the World Business Council for Sustainable Development (WBCSD), and Canada's CDM and JI Office. The Forum took place at the Hotel Grand, Vasant Kunj, New Delhi on February 1-2, 2005.

This event was significantly poised in light of the entry into force of the Kyoto Protocol on 16 February 2005, and the renewed enthusiasm in the carbon market due to this development. It provided an opportunity for participants to discuss and interact with senior policymakers and business representatives from India, Sri Lanka, Nepal, and Bangladesh, as well as experts and practitioners from OECD countries. The topics of discussion included an update on the GHG market, including new carbon funds, recent pronouncements of the CDM Executive Board and their impacts on the market.

The Forum also provided an excellent opportunity to learn about existing regulations and programs concerning emission reduction projects and the progress that countries and sectors are making to participate in this market. It showcased select CDM projects and served as a platform for project developers to meet with potential investors as well as for the development of new partnerships. The final agenda of the Forum is given in Annex 1.

Opening session

Opening the Delhi GHG Forum 2005, Ambassador C Dasgupta, TERI, recalled the price uncertainty that prevailed at the time of the 2004 South Asian Forum on CDM. This uncertainty has been removed with the entry into force of the Kyoto Protocol on 16 February 2005, and will lead to healthy development of the global carbon market. Negotiating a post-Kyoto protocol will further firm up the market by removing longer-term uncertainties also. Rapid developments have also taken place in India over the last year, with the country coming to be regarded as the most preferred CDM host. The release of the National Strategy Study will also provide a healthy impetus through its recommended framework to facilitate CDM implementation in India.

Sir Charles Nicholson, BP, hoped that the discussions in the Forum would serve to advance the cause and practice of the

CDM, which has a long life ahead of it. Moving ahead from mere discussions, there is critical work to be done in advancing delivery of methodologies. Businesses have to be willing to develop and test projects and go through the process of registration. In the coming years, there are choices to be made involving cleaner fuels, new technologies, and more efficient use of energy, and it is important that the CDM aligns with these options, perhaps by taking a sectoral approach. Political leadership on climate change is essential, and it should be noted that the United Kingdom, which seeks to make climate change one of two principal G-8 priorities, will also the European Union Presidency in the second half of 2005. Expressing disappointment at the slow pace of project approval, Sir Charles said that the Indian government could play a key role in generating consensus on removing obstacles and reducing administrative costs associated with CDM, perhaps by moving from individual project consideration to a benchmarking approach.

Mr Andrei Marcu, IETA, expressed his support to making the Delhi GHG Forum an annual event. He also remarked on how much has changed in a year, with reduced uncertainty about the Kyoto Protocol entry into force and the functioning of the EU Emission Trading System. New players are emerging, financial institutions are entering the market, and a lot of big funds are participating in the Forum to do business. India has established itself as a major CDM power because of the Government's negotiating stance and proactive developments. At the international level, greater funding support for the Executive Board is necessary to get the expected CDM services from them. Mr Marcu ended his remarks by calling on all stakeholders to make the CDM work.

Mr Laurent Corbier, WBCSD said that the large number of Forum participants proves that the topic is of importance and interest to people. The short-term objectives of the Forum are to accelerate the pace of CDM developments, and make the Kyoto mechanisms and GHG market work effectively. In the long-term, the Forum has the objective of developing workable solutions for subsequent periods. Mentioning that the Delhi GHG Forum is being held at the same time as the Delhi Sustainable Development Summit, Mr Corbier stressed the importance of not losing sight of the larger picture. CDM efforts should be anchored by addressing energy, poverty, and other developmental issues. A very important feature of the Forum is the opportunity to learn from each other's experiences to create win-win opportunities in the GHG market.

Dr Prodipto Ghosh, MoEF, called the CDM an outstanding example of North-South cooperation in addressing global

cooperation for climate change. Weather anomalies in India and around the world have shown us that prudent policymaking lies in addressing climate change seriously. India is very concerned about and stands committed to addressing climate change, but this must be done in the multilateral framework of UNFCCC, explicitly recognising the sustainable development needs of developing countries.

India's leading position as a preferred CDM host country reflects the oceans of creative entrepreneurial and technical talent in the country, and also the transparent, streamlined host country approval process set up by the government. Dr Ghosh also acknowledged the stellar role played by TERI in catalysing CDM activities and raising awareness on the subject in India.

The entry into force of the Kyoto Protocol will remove the last vestiges of uncertainty about CDM, as can be seen from the 100% jump observed in international carbon prices the day after the Russian duma agreed to ratify the Kyoto Protocol. In discussing the future of CDM, Dr Ghosh said that there should be no fundamental barrier to countries who have not ratified the Kyoto Protocol from participating in the CDM market. Programmatic approaches to CDM should also be explored (for instance, baselines for entire sectors or technology clusters) to reduce transaction costs and ease regulatory burdens at the country and Executive Board levels. Finally, CDM projects in the forestry sector should also be harnessed in a major way to support the national afforestation programme.

GHG market update

Mr Kai-Uwe Schmidt, UNFCCC described the entire CDM cycle which is managed by the Executive Board. CER products have to be viable all over the world, and eligibility criteria have to be met for emissions trading under the Kyoto Protocol. Projects that are to be designed need approved methodologies but the developer has to technically assess the best option or generate new methodologies. Verification and certification has to ensure the correct application of the mechanism.

Mr Martin Enderlin, Executive Board provided an update on the development of CDM modalities. Currently, 26 applicant operational entities are in the accreditation process. Five designated operational entities exist, and five more are being contemplated from developing countries. On methodologies, two consolidated methodologies have been established for landfill gas and renewable energy. Speaking about additionality guidance, Mr Enderlin said that proposed projects have to show that barriers exist, that it is not yet common practice, or

financial attractiveness is not certain. However, consolidation of methodologies and streamlining of processes is urgently needed.

Mr Andrei Marcu, IETA talked about the linking of domestic markets in the European Union and the EU ETS with Kyoto. The success of the EU ETS lies in its simplicity as a cap-and-trade system. Notable features include annual compliance checks, provisions for penalties, inclusion of banking and borrowing, and ineligibility of sinks projects. The EU is a very large market with a million units traded a week. However, it is also very dynamic with prices falling in 2005 due to the mild winter in Europe, and prices expected to rise in 2007 and 2010 as per an internal IETA survey. The demand for CERs will depend on the extent to which Europe will be carbon constrained. Deep cuts are required in the second period of the EU ETS, the costs of compliance are heavy, liquidity is required, and many smaller firms lack the necessary expertise.

Mr Axel Michaelowa, Point Carbon, estimated that 5 billion tons of CO₂ equivalents will be traded annually by 2010 if the voluntary markets of US are linked to Kyoto. At present, 15 countries have more than half a million tonnes of CO₂ and 20 million CERs are expected to come on-stream. In terms of project types, the largest volumes are those of landfill gas capture, HFC 23 decomposition, and gas flaring reduction in refineries and wells. Among host countries, India has top ranking owing to the lower associated risks, but trails Brazil in terms of the volume of CERs. From an investor's perspective, major decisions depend on understanding of risks, such as the political sensitivity associated with HFC 23 projects.

The discussion at the end of this session covered a wide range of topics related to the CDM today. Asked to compare JI and CDM, Dr Michaelowa pointed out that JI is only 20% of the size of the CDM market because ERUs will be available only from 2008. JI requires agreements between governments, making the private sector is dependent on the government. Mr Marcu added that JI has the advantage of a simpler administrative framework with the cap-and-trade market, compared with the institutional complexity of CDM.

In the CDM process today it is the submission of methodologies and proposals by the private sector that is driving the project approval process in a bottom-up manner. In the case of agriculture, for instance, it is not that the sector is not being given importance, but that there are no approved or proposed methodologies due to the relatively low awareness of stakeholders in this sector and high transaction costs. Initiative needs to be taken by the promoters. Similarly for sinks, there

are new baselines under consideration, but simpler methodologies can be proposed by promoters.

The key barriers to CDM participation in India relate to quality of project preparation, leading to poor success rate of projects with the Executive Board, and low understanding of CDM issues at the state government level and by other stakeholders. An example is the controversial decision of the Karnataka State Electricity Board to retain 70% of CERs being earned in the state from renewable energy grid power projects, which has served to discourage CDM project developers.

In this context, a participant called for cooperation between national and international consultants. While India has several ongoing capacity building initiatives, technical training of consultants is required, particularly with the aim of improving the quality of documentation, to reduce the rejection rate of PDDs and methodologies.

New carbon fund initiatives

Mr Pranab Ghosh, Rabo Bank, presented a lender's wish list on methodology issues. This includes uniform clear understanding of additionality aspects, conservative robust baselines, and low manageable transaction costs. He described mezzanine finance concepts in discussing the potential benefits to financial institutions. Looking ahead, he said that Indian companies need to hedge against rising power prices.

Mr C S Sinha, World Bank, said that there is a future for CDM despite the existence of hot air in volumes that can help meet the total demand for GHG reductions. He described the carbon funds developed and managed by the World Bank in response to client requests, including the Spanish Carbon Fund announced at COP-10, and the European Investment Bank – World Bank European Carbon Fund expected to become operational in June 2005. Many funds have technological or regional preferences. Most tend to buy beyond 2012. All except the Dutch CDM facility buy VERs rather than CERs. Prices currently offered by the World Bank are 4-5 USD for VERs and 4-4.5 Euros for CERs. It should be noted that the Bank's own portfolio represents only 10% of underlying finance. From India, Joint Forest Management projects are expected for the Bank's Biocarbon Fund.

Mr Bernard Zander, KfW Carbon Fund, presented the contractual structure of the KfW Carbon Fund for the benefit of the Forum participants. He also listed the various project selection criteria and procedures of the Fund. The presentation

provided details of how the Fund operates as a “Buyers’ Pool” for project-based certificates.

Mr Shin Oya, Japan Carbon Finance, presented a general outline of the funding available through the newly established JCF. The noteworthy features of the JCF include provision of the project development cost (subject to a ceiling), and payment on CER delivery, although upfront financing can be considered on a case-by-case basis. Mr Oya explained the operation of the Japan GHG Reduction Fund as a fund pool, and described the emission reductions purchase structure. Further, underlying finance is available from JBIC in the form of export loan, overseas investment loan, untied loan, ODA loan, etc.

Ms Robin Sandenburgh, IFC, talked about the InCAF, which is “open for business”. She described IFC’s plans for carbon finance, noting that long-term credit risk is taken for 7 – 10 years. IFC is interested in delivering new structured finance products to monetize future cash flows from the sales of carbon credits. In response to an audience question, Ms Sandenburgh clarified that there may be an unspoken understanding that two funds will not consider the same project, for instance, if Rabo Bank and the World Bank are both managing funds for the Dutch government.

Ms Sonia Medina, EcoSecurities Ltd, discussed the modalities of the EcoSecurities-Standard Bank Carbon Facility (ESCF), the current participants of which include the governments of Denmark and Austria. Projects are developed jointly by ESCF and project developers, with ESCF preparing all project documentation and assisting with host country approval. The call for proposals from India is open till 31 March 2005, and seeks projects with a minimum of 50,000 tCO_{2e} per year over a period of at least 8 years.

Mr Laurent Segalen, European Carbon Fund (ECF), compared the ECF with other carbon funds, and explained its purchasing strategy. The advantages of dealing with the ECF include bankable guarantees, innovative contracts, and limited penalties. Mr Segalen went through the steps of the ECF process from project identification to follow-up, and stressed that it is a discretionary decision with ECF taking risks.

Lessons learnt: designated operational entities

The focus of this session was to understand the issues and concerns faced by the designated operation entities in the process of project validation, submission of new methodologies and registration of projects with the CDM EB. The

representatives of four DOEs namely the DNV, TUV, SGS and JQA shared their experiences in the CDM process.

Mr. C Kumaraswamy, DNV mentioned that ideally the validation process shall take about 45c days but in practice it spans anything between 2 to 18 months and if it involves submission of a new methodology the time involved may be even higher. The reason for long time in validation is due to insufficient data, information, reasoning etc. for baseline, additionality etc. Delays in project increase transaction costs.

Regarding monitoring plan Mr. Kumaraswamy mentioned that the plan should contain transparent and conservative calculation of CERs, containing a complete and consistent chain of records and calculations. Mr. Kumaraswamy also mentioned that the guidance on additionality provided by the CDM is yet not very clear. Further there is very little predictability in CDM-EB decisions.

Mr. Kumaraswamy appealed for new methodologies in sectors where it is yet not available and also suggested to make the process more open and fast. The stakeholder comments should relate more to projects than to principles, as it mostly happens.

Mr. Michael Rumberg of TUV, mentioned that there are high expectations from DOEs regarding methodologies development. Further, methodologies arrive late leading to disadvantage in the UNFCCC “first come first serve” approach. He also mentioned that very often project proponents alter the PDD formats.

In addition to the general comments on precise description of projects and its management structure, Mr. Rumberg mentioned that risk management tools related to unforeseen circumstances as well as non-delivery of CERs should be precisely thought of. Mr. Rumberg also suggested that revision of an already approved methodology will be a discouragement to project proponents.

Mr. Zaidi from SGS, shared his experiences with validation of projects. SGS has submitted the first request for registrations of a CDM project and shared his experience that it is not a straight forward task due to incomplete information and documentation of the PDDs, leading to long time involvement as well. Mr. Zaidi suggested to get started as soon as possible and commission a pre-assessment from the validator in order to highlight potential issues as early on in the process as possible.

Mr. Masaki Maegaito of JQA gave a brief overview of the CDM projects handled by them in the last 2-3 years. The sectors

covered were quite diverse HFC 23 decomposition, Bio-mass, Power plant renewal, Methane recovery and power generation, Bio-mass and power generation, Afforestation/reforestation. JQA has also brought out guidelines for calculation and verification in 2002 and 2003 respectively which after trial runs have been revised in 2005. Based on their experience of handling projects Mr. Maegaito mentioned that the key feature of a project such as “Sustainable Development”, Project Participant, Baseline Methodology and the Scenario and Forecast of feasibility and continuity of the project shall be very precisely presented in a project.

The questions raised during the session related to charges for validation of CDM projects, potential of validation as a business opportunity, and how to measure the sustainable development contribution of projects. Responding to the questions, the panel mentioned that the validation charges varied depending upon the complexities involved in a project and other factors. Validation of course offers business opportunity, however, involves quite a lot of challenges. More so as the modalities and procedures are still in the developmental stages. Regarding the sustainable development contribution, the panel mentioned that DOEs do not have a role to measure or monitor this; the approval letter from the DNAs of host countries take care of this provision.

Lessons learnt: CDM methodologies

The session focused on the learning from the development and approval of CDM methodologies.

S N Jain from Global experience with CDM methodology talked about the overall experience of methodology development for different projects handled. The initial high rate of rejection was due to insufficient clarity on modalities and procedures, However with passage of time this has been improved. The later outright rejections were mainly related to inadequate demonstration of additionality. Further the initial methodologies were narrowly focused applicable to very limited type of projects. The latest consolidated methodologies and new tools for demonstrating additionality have improved the situation and are helpful.

Dr Ajay Mathur touched upon the main issues of learning from the experience till now and the additionality issue. There are large number of PDDs are being developed. However procedure of approval dose not provide any learning i.e. the reasons for

rejections are not known thus its is difficult to conclude what is 'unacceptable'. Thus any periodic publication of "learning' from the methodology approval process would be useful. It is also apparent as far as the additionality arguments are concerned that the metrics for high energy consuming countries are inappropriate countries with presently low increasing energy consumption. The project based additionality determination is inappropriate since the first choice for the growing sectors are fossil fuels. The renewables are being supported through public policy globally. Further, the high emission intensity of the developing countries suggests that renewables are not first choice for investment. In addition the CDM revenue can only be an additional risk mitigation measure at the most. Thus comparison with the baseline emissions can only be the additionality metric. In case of baselines the data requirements are higher than what is generally available in developing countries. Thus the consolidated methodologies should provide guidance on use with limited data availability. In some cases monitoring costs deter project development e.g. rural energy and small scale industries which have high sustainable development benefits or transport projects which result in large shifts in GHG emission scenarios.

Mohan Reddy from Zenith Corporate Services gave details about the various methodologies developed for the biomass and small hydro projects in India.

Bishal Thapa from ICF Consulting presented the issues related to the baseline methodologies. As per Mr Thapa the main reason for rejection of methodologies is that the baseline and additionality is not properly assessed. The methodologies submitted mainly use the 48(a) or 48(b) approaches, suggested in the Marrakech Accords, for baseline determination. The baseline must explain additionality, through barriers and demonstrate how CDM is removing at least one of the barrier. The different baseline approaches are suitable in different project scenarios and thus depending upon the project conditions the appropriate approach must be selected for estimation of baseline.

Ram Babu from PricewaterhouseCoopers presented on the genesis and functioning of the EB and the various issues related to the baseline, additionality and monitoring of the CDM projects. The EB is designed to create shelf of methodologies which could be used by project promoters. Thus it should follow process of screen- discuss and develop and should not just 'approve' or disapprove'. The no-availability of data restricts baseline development. Further it leads to arbitrary conservative approach which is a penalty on the project proponent. The price of CDM is single largest component determining the decision

making about CDM project. However the additionality issue can also be handled through discussing the prevalence or by demonstrating the CDM revenues were considered from the initiation of the project. The issues regarding the monitoring and verification are the issue of change in the baseline scenario and monitoring of the sustainable development benefits.

Panel discussion: Update on financing under CDM

This Panel discussed the issues related to CDM financing and programs of Indian FIs as well as bi/multi-lateral FIs namely, IREDA, JBIC, European Carbon Fund and the Carbon Finance Business of the World Bank.

Mr. C S Sinha, of the World Bank mentioned that the biggest barrier to clean technology projects is underlying finance. A \$5 billion carbon market will need over \$40 billion of underlying project finance. CDM projects have further disadvantage due to contradiction between financial viability of projects and additionality. Main financial barriers are related to i) project preparation resources, ii) equity finance and iii) debt for underlying project.

Mr. Sinha mentioned that all World Bank carbon funds provide for reasonable direct project preparation costs related to CDM aspect, usually capped at \$300,000, which is recovered in installments over 3-5 years from ERPA payments. Most Bank carbon funds allow up to 25% upfront payment. Bank is also exploring insurance product (with a consortium of insurance companies) to increase up-front payment exposure to 50% of the ERPA value for small project (for the Community Development Carbon Fund). The Bank is also discussing project preparation facilities with bi-lateral and multilateral donors in the form of i) contingent grants or ii) use of ODA to provide project preparation grants for LDC.

In order to raise financing, Mr. Sinha suggested introducing financial engineering around ERPA. The value of the ERPA to a financier depends on the risks transferred on to the seller in the ERPA and is further reduced by penalty clauses. The World Bank tries to further enhance the value by tailor designing the ERPA for the project circumstances. Multi/bi-lateral FIs that value ERPA include the World Bank, IFC, Inter American Development Bank, Rabobank, and Standard Bank; discussions are underway with JBIC, CAF, FMO, etc. In India is the agency valuing ERPA and discussions are underway with IREDA and KUIDFC, SIDBI and SBI to provide debt against ERPA.

Mr. Sinha also mentioned that intermediation by Financial Institutions helps in several ways e.g. in identifying project opportunities at lower cost, get equity and debt financing, in effectively designing and/or evaluating projects and in reducing transaction costs. In India, the Bank has already identified IDFC as an intermediary and discussion is on with IREDA.

Mr. Laurent Segalen presented features of the European Carbon Fund (ECF), a 100 million Euro fund to get operational in April 2005. This is based in Luxemburg and owned by AAA & AA EU financial institutions and is not submitted to public procurement rules. The ECF will purchase only CER valid under EU ETS. It does not buy CERs from sinks and spans upto first commitment period only. Individual transactions would be in the range of 5-10 million Euros.

The decision to buy CERs will be that of Management team and Investment Committee and will adopt a fast track Go/No Go procedure. The fund will absorb its risks.

The steps in the ECF involve i) Identification & Power of attorney, ii) Acceptance of contracting framework + due diligences, iii) Engagement committee, iv) Negotiations on Prices, Volumes & Default events, v) Cash-Out Committee, vi) Implementation of the agreement, vii) Follow up during life-cycle of the product.

Mr. Yasuo Murakami from the JBIC briefly presented the funding opportunity present with the JBIC. He mentioned that JBIC has two lines of operation – one related to ODA and the other not related to it. As the Government of India strongly opposes use of ODA for purchase of CERs, JBIC concentrates on non ODA operation in India. Mr. Murakami also discussed the complementarity between the JBIC and Japan Carbon Fund (JCF). He mentioned that JBIC is trying to tie up with local FIs for greater benefits.

Mr. Debashish Majumdar of IREDA stressed on the role of FIs in realizing the potential of CDM. Mr. Majumdar mentioned that the FIs in developing countries and particularly in India have not taken into account the revenues flowing in from CDM and need awareness generation and capacity building on this aspect. Mr. Majumdar also announced the intention of IREDA for setting up a cell for bundling of small scale CDM projects and expressed his hope of IREDA playing a vital role in CDM in India.

The question in this Panel related to clarification on mandate and line of business of ECF and other FIs. The ECF was very clear in this regard that it does not recognize VERs as these

don't have any legal validity. Responding to a question on whether there are any conditionalities attached to use of CER revenues for particular purposes, Mr. Sinha mentioned that the conditionalities are more for contract sake. As long as the CDM revenue are not used for destructive purposes, there are no strings attached.

Presentations of CDM projects (part 1)

Mr Y D Babu, TERI presented an overview of the five PDDs selected from a nation-wide open call for PINs, and developed as part of the National Strategy Study by TERI. These included small hydro, small foundries, municipal solid waste pelletisation, municipal street lighting, and rural electrification. He highlighted lessons learnt from the PDD development related to baseline methodologies, data availability, bundling, and additionality. In response to questions from the chairs and audience, Mr Babu said that small hydro and waste to energy were promising categories in terms of the potential for replicability. The additionality implications of state policies need to be examined project-by-project and state-by-state, and cannot be generalised for the country as a whole. Noting that projects with less than 20,000 CERs per year will not be attractive at the current prices and transaction costs, Dr Axel Michaelowa commented that caution must be exercised in developing small-scale projects, as these PDDs may not find buyers easily. Regarding the benefits of the German capacity building programme in India for developing power sector baselines, Mr Babu was of the opinion that making detailed data available for one year may not solve the problem, as the same quality of data may not be available next year. Moreover, it may set a precedent for more rigorous analysis, which may not really be justified given the low prices.

Mr S Sankaranarayanan, Sane Renewable Energy, made the point through his presentation that demonstrating additionality is confusing as projects have to be viable anyway. Mr Urs Brodmann made technical comments regarding the sustainability of the biofuel source and the appropriateness of the PLF used under Indian conditions. Since the project appears to be a typical biomass project that has achieved financial closure, Mr Brodmann asked if the promoter had documentary evidence that CDM revenue helped achieve financial closure. Mr Sankaranarayanan clarified that it was not only because of CDM that financial closure could be achieved and State Bank of India was willing to fund the project. However, Tamil Nadu has low biomass power penetration levels, with only one such plant commissioned 8-9 years ago, proving the "not a common practice" argument for additionality.

Mr Anand Wagh, Maharashtra Energy Development Agency, argued that from a promoter's perspective the most important need is upfront funding for PDD development. Noting that Maharashtra does not have a single biomass IPP project, he described a sample PIN for a biomass power project. He also declared MEDA's intention to set up a separate CDM promotion cell to facilitate renewable energy project developers.

Mr Inderjeet Singh, Senergy Global, described a wind energy project, which used TERI's baseline study for MNES to calculate emission reductions. Dr Michaelowa pointed out that the project went beyond the small-scale project requirements to do a consolidated additionality test, proving that CDM requirements are well understood by the promoter. He also noted that the baselines developed by TERI are the best available so far for such projects.

Dr Y P Abbi, TERI presented a boiler replacement project, which showed that there remain a number of open questions. Mr Brodmann said that by taking projects in the pipeline when CDM was considered, questions that commissioned projects face could be avoided. The issue of equivalence of service has been raised by a number of projects such as this (increase in boiler capacity in this context), and needs clarification by the Executive Board. Dr Michaelowa raised questions about the monitoring plan and the bundle size, and was of the opinion that this project was an interesting demonstration of CDM issues, but was clearly not additional.

Mr N Vasudevan, TERI described an industrial energy efficiency project in the informal glass sector involving replacement of existing systems. Dr Michaelowa agreed that the project had huge sustainable development benefits, but monitoring system operation at each site would be extremely difficult. In response to a question about CER ownership issues, Mr Vasudevan clarified that the owners would transfer the CER rights to an umbrella organisation.

Much of the discussion at the end of this session related to additionality. Essentially the application of the additionality tool is dependent on the Executive Board's practice, and the stringency of treatment by validators. CDM projects, which are not common practice, cannot alter the baseline even if several of them come up. In fact, the Executive Board has clarified that the CDM should not penalise good projects. Mr Mohan Reddy said that CDM revenue cannot affect the profitability of biomass projects, and at best can provide a cushion. Mr Brodmann agreed but pointed out that certain institutions are willing to give a portion of financing upfront in exchange for CERs.

However, there are clearly difficulties given the nascent stage of the market.

Presentations of CDM projects (part 2)

Ms Kusum Lata, TERI described a project on pelletization of municipal solid waste. There were several questions asked and comments made on the presentation. Mr. Vinod Kale queried whether the MSW matter is segregated and the plastic and metal components are treated separately. Questions were also raised on the calorific value of the treated waste being as high as 2400 kcal when the untreated waste is usually found to be of very low calorific value. Mr. AK Jain asked whether the pellets produced were directly fed into the boiler – the speaker clarified that the use of the pellets were not considered within the project boundary. In response to the question that whether there was any social benefit accruing from the land being saved due to the usage of the landfill waste – it was specified that the raw waste was procured from outside locations. The co-chair Mr. Michael Rumberg commented that such a project involved multiple methodologies and therefore it is imperative to draw project boundaries between each of the different aspects of the project and to rationalize the project related calculations.

Mr Lucas Rojario, Rojac Consultants, spoke on the immense potential of bio-diesel (involving jatropha plants) projects for CDM project activity. A suggestion was made to the speaker on the introduction of tissue culture so as secure the long-term yield of high yielding specimens. The speaker also took this occasion to clarify that Bio-diesel is widely accepted as being 100% pollution free. Comments were passed on the history of production of the jatropha plant producing less seeds though the project has already started generating credits. Dr Abbi also shed light on the government's plans of management of arid land area under which the GOI has taken lead in afforestation.

Mr Nalin Kanshal, ELPRO discussed the energy saving and CDM benefits of an energy efficiency project in municipal street lighting. The first question that came his way related to additionality. He said that there was two ways of monitoring additionality; firstly monitor the project without energy conservation system in place and secondly calculate the historical date on the municipal energy bills before the adoption of energy conservation techniques. In the CDM context, the project has the advantage of continuous computerised tracking and recording of various parameters.

Mr Udit Mathur, Development Alternatives, spoke on the energy efficiency initiatives that have been taken at two hotels of the Kamath Group of hotels. Questions were raised in

response to the claim of the speaker that unawareness of energy efficient techniques would be taken as a barrier and therefore buttress the claim of additionality. The chair in this case clarified that the “common-practice test” relating to additionality was inapplicable in this case. Further for a small project like this the evidence of barriers was an adequate guarantor of evidence of additionality.

Finally, Mr James Jacob, Rubber Research Institute, spoke on the feasibility of developing methodologies relating to creation of sinks and gaining carbon credits by way of sequestration. There were questions on the time period required for the yield. The speaker specified that within 5 years the trees were ready for tapping and the usual age of trees for yield was till 30 years. The speaker also shed light on the unclear status of sinks since though the CDM EB has accepted sinks as potential CDM project activity – the unwillingness of the major buyers such as the EU to procure credits from sinks have hampered the development of this activity though there is a tremendous potential and associated social gains to be made by way of this activity. The chair commented that there was ample opportunity to produce methodologies since the EB has so far only accepted two methodologies.

Wrap-up session

The Delhi GHG Forum 2005 concluded with a brief wrap-up session. Mr Laurent Corbier, WBCSD noted that the Forum had provided an opportunity to hear the points of view of a variety of actors: buyers, sellers, and regulatory authorities. Over two days a rich range of issues had been discussed, such as carbon finance, underlying finance, risk mitigation, additionality, and procedures. Moreover, concrete examples and applications of CDM ideas had been presented. Consequently, the Forum had covered all the ingredients to move forward with CDM implementation. The presentations revealed that there are plenty of projects waiting for capital, but also that there is plenty of capital looking for projects. So the key message from the Forum is that we are very close to building bridges through the right kinds of facilitators or intermediaries.

Mr C S Sinha, World Bank Carbon Finance Business, expressed appreciation for the good ideas and spirited discussions at the Delhi GHG Forum. In particular, the World Bank is taking forward three projects from the 2004 South Asian Forum on CDM, and hoped to have more to report next year. One issue that emerged during the discussions is the tension between proactive government policies and additionality as it is being refined. The Executive Board should appreciate that these are part of the same goal of addressing climate change.

Ms Preety Bhandari, TERI, said that the nature of participation had encouraged the organisers about the interest in the Forum. The presence of MoEF and the UNFCCC provided useful regulatory perspectives to the participants. Next year, it is hoped to get more participants from the neighbouring South Asian countries. Finally, Ms Bhandari asked for participants to share their views about structuring this event to make it more relevant to various communities.

14:15 – 16:00 Session 4: Lessons learnt: designated operational entities

- Mr Chandrashekara Kumaraswamy, DNV
- Mr Michael Rumberg, TUV
- Mr Shivananda Shetty, SGS
- Mr Masaki Maegaito, JQA

Chair: Mr Andrei Marcu, IETA

16:00 – 16:15 Coffee break**16:15 – 17:45 Session 5: Lessons learnt: CDM methodologies**

- Mr Shanti Nath Jain, MGM International
- Dr Ajay Mathur, Senergy Global
- Mr Mohan Reddy, Zenith Corporate Services
- Mr Bishal Thapa, ICF Consulting
- Dr Ram Babu, PricewaterhouseCoopers

Chair: Ms Mahua Acharya, WBCSD

19:00 Cocktail dinner**Wednesday, 2 February 2005****TIME****SESSION****09:30 – 11:00 Session 6: Panel discussion: Update on financing under CDM**

- Mr C S Sinha, World Bank Carbon Finance Business
- Mr Laurent Segalen, European Carbon Fund/IXIS
- Mr Yasuo Murakami, JBIC
- Mr D Majumdar, IREDA

Chair: Mr Laurent Corbier, WBCSD

11:00 – 11:30 Coffee break**11:30 – 13:00 Session 7: Presentations of CDM projects (PDDs/PINs)**

- Snap shot of NSS-India PDDs: Mr Yuvaraj Dinesh Babu, TERI
- Biomass energy: Mr S Sankaranarayanan, Sane Renewable Energy Ltd
- Biomass power: Mr Anand Wagh, Maharashtra Energy Development Agency
- Wind energy: Dr Inderjeet Singh, Senergy Global
- Industrial energy efficiency: Dr Y P Abbi, TERI
- Industrial energy efficiency: Mr N Vasudevan, TERI

Chair: Mr Urs Brodmann, Factor Consulting + Management
Dr Axel Michaelowa, Point Carbon

13:00 – 14:00 Lunch

14:00 – 16:00 Session 7 (part 2): Presentations of CDM projects (PDDs/PINs)

- Waste to energy (pelletisation): Ms Kusum Lata and Ms K V Rajeshwari, TERI
- Biodiesel: Mr Lucas Rosario, Rojac Consultants
- Municipal street lighting: Mr Nalin Kanshal, Elpro
- Energy efficiency in buildings: Mr Udit Mathur, Development Alternatives
- Forestry: Dr James Jacob, Rubber Research Institute

Chair: Dr Y P Abbi, TERI
Mr Michael Rumberg, TUV

16:00 – 16:30 Wrap-up and vote of thanks

- Mr Laurent Corbier, WBCSD
 - Mr C S Sinha, World Bank
 - Ms Preety Bhandari, TERI
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