



World Business Council for
Sustainable Development

CSI-TERI-ECRA India Discussion Forum: *Building a sustainable cement sector in India*

**18th-20th September 2008
India Habitat Centre, New Delhi**

Summary

Agenda overview:

18 th Sep	Expert discussions on the Indian CDM market and the CSI CDM benchmarking methodology (by special invite only)
19 th Sep	International roundtable and workshop: Issues of the cement industry in India, CSI Agenda for Action, global cement database "Getting the Numbers Right" system, cement sectoral approach – international perspective and panel discussion
20 th Sep	International roundtable and workshop : Issues of the cement industry in India, innovation and future technology needs, research and development

1. The Indian CDM Market and Stakeholder Expectations: Cement Sector Experiences & CDM Benchmarking Methodology, 18th September 2008 (by special invite only)

Event background and purpose

The CSI is developing a new CDM sector methodology that would use GNR data to help benchmark cement plant performance and determine if a CDM project were providing "additional" emission reductions – a necessary requirement to generate tradable emissions credits. If this new methodology is accepted by the CDM board, it will allow cement players to demonstrate "additionality" in a more objective and credible manner, thus reinforcing the environmental integrity of the CDM system and making it possible to reduce the time delays and transaction costs associated with the current project-by-project CDM approach. This would encourage developers to take on more projects, and enhance the role of the CDM in reducing CO₂ emissions.

In this regard, the CSI in association with The Energy and Resources Institute (TERI) – Business Council for Sustainable Development (BCSD) India organized an international round table stakeholder dialogue to discuss the Indian CDM markets and explore expectations on the sectoral CDM methodology with over 30 international experts at TERI Conference Room, India Habitat Centre, New Delhi.



Event participants

Representatives from the CSI, TERI, Indian cement producers, Cement Manufacturers' Association (CMA) India, DOEs (Det Norske Veritas), consultants (Ernst & Young, Core CarbonX Solutions), Financing bodies (IFC, Rabo India Finance) and others. Lex de Jonge, vice-chair CDM Executive Board (EB) was in attendance, as was Edwin Aalders, Director IETA.

Summary

The stakeholder dialogue revealed that the Indian cement sector, whilst being very successful in developing CDM projects in recent history, has been facing substantial problems under the current CDM approach. They are experiencing an increasing number of projects being rejected by the CDM executive board, and greater delays in project registration.

There was general acceptance from the Indian cement sector of the overall concept of sectoral benchmarking in a proposed new CDM methodology and the eligibility condition of GNR participation. Useful feedback was also received on several issues to be better treated in the methodology e.g. electricity self-production, waste heat recovery, carbon leakage. The CSI made clear that both current and new methodologies are intended to co-exist, leaving companies the freedom to choose between the two.

Most encouraging was the initial optimism regarding the proposed new CDM methodology expressed by Lex de Jonge from the CDM EB. He encouraged the CSI to proceed with developing and advocating the methodology. However he could not vouch that projects that have not yet reached validation/registration would not be put on hold assuming the new methodology is approved. Also, it appears clear that blended cement projects have no future under the current CDM methodology.

Ahead of COP14/MOP4 Poznan, the CSI intends to informally present the proposed methodology to the CDM executive board in November to gauge their reactions. The CSI agreed with Lex de Jonge that we would prepare a package for him to be tabled at the EB meeting around 20th November, just ahead of COP.

2. The Cement Industry in India: Now and in the future, 19th September 2008

Event background and purpose

This international dialogue offered a platform for about 50 industry specialists, equipment suppliers and academic institutions to exchange views and experience on the specific issues in India and to better understand what different parties are doing or could be doing to address GHG emissions, resource and energy efficiency, health and safety and community impacts.

The discussion was intended to focus on agreeing on a way forward for deepening implementation in the Indian cement sector of the CSI's Agenda for Action, and in depth discussions on the GNR system and global sectoral approaches with stakeholders from the Indian cement sector.

Event participants



Representatives from the CSI, TERI, ECRA, Indian government (Ministry of Environment and Forests, Central Pollution Control Board), National Council for Cement and Building Materials (NCCBM), Indian cement producers, Cement Manufacturers' Association (CMA) India, Financing bodies (IFC, Rabo India Finance), Equipment suppliers (FLSmith, KHD Humboldt Wedag AG India, Polysius India), Academia (Columbia University), the International Energy Agency (IEA) and others. Dr. R.K. Pachauri, Chairman IPCC was a special guest at the event and gave closing remarks.

Summary

1. CSI Agenda for Action: Deepening implementation in India

Per capita cement consumption in India stands at 146kg, significantly below the world average. However, India is now the world's 2nd largest producer and consumer of cement, and demand is growing rapidly.

In this context, and amidst strong recognition of the importance of deepening implementation in India of the CSI's Agenda for Action, delegates at the Forum agreed that an informal group of CSI member companies operating in India would meet (possibly by organizing a meeting of CEOs) to formulate a proposal for action and kickstart the local chapter of the CSI's Agenda for Action. TERI-BCSD are committed to facilitating and advancing the process.

2. "Getting the Numbers Right (GNR)" system

The GNR system was viewed very positively at the Forum, and the Indian cement sector is very keen for the Indian Cement Manufacturers' Association (CMA) to join the system starting with the next data collection cycle. Delegates encouraged the CSI to expand the scope of the GNR system for it to better project a global picture of the cement sector.

3. Sectoral Approaches

A very engaging and thoughtful panel discussion took place on the subject of sectoral approaches, leaving much room for further dialogue. There was consensus that the GNR system scope must be improved to better represent a global picture of the cement sector.

The Indian cement sector remains skeptical, questioning in what ways exactly sectoral approaches will help them. Concerns were expressed that already high-performing energy efficient producers would be unfairly penalized in a benchmark approach. They were more receptive toward sectoral approaches as a basis for technology cooperation, sharing and transfer.

Dr. Prodipto Ghosh, a member of the Indian government's Prime Minister's Council on Climate Change, expressed that the Indian government was uncomfortable with the notion of harmonizing emissions standards across an industrial sector, given vastly varying regional / national circumstances. However he was similarly supportive of technology cooperation between NAIs and AIs to be a possible beneficial outcome of sectoral approaches, and urged the scaling up of CDM in a post-2012 framework to promote FDI in clean technologies in NAIs. Nonetheless he was adamant that the focus should instead be on national abatement targets, and that sectoral approaches were simply a "red herring" and must in no way dilute AI responsibilities and commitments to GHG reduction. He emphasized that development and poverty alleviation must be given key status in any international climate negotiations, being the first and foremost imperative for NAIs. He stressed that from an Indian context, today 800 million people in India live on under US\$2 a day.



The CSI reiterated that sectoral approaches were an opportunity for the already high-performing Indian cement sector to take leadership on climate policymaking, stating that sectoral approaches could be an effective tool for driving technology cooperation and incentivizing improvements by laggards whilst not punishing the best performers for their historical improvements. Rather, best performers in the Indian cement sector would likely have the incentive of surpassing their benchmarks and selling emissions credits to laggards.

In closing, Dr. Pachauri himself urged the Indian cement sector to align itself with CSI actions, arguing that the sector has the opportunity to gain first-mover advantages by preempting inevitable, stricter regulation. He stressed that the CSI should be made more inclusive, to include all elements of the cement sector including small operations and laggard producers.

3. The Cement Industry in India: Innovation and future technologies, 20th September 2008

Event background and purpose

This was the second in a series of technology workshops that the CSI is organising on the topic of future technologies in the cement sector. This time it was in collaboration with TERI and ECRA to exchange views and experience on the future technology needs of the cement sector in India and to better understand what different parties are doing or could be doing to address GHG emissions, resource and energy efficiency.

The international dialogue offered a platform for about 50 industry specialists, equipment suppliers and academic institutions to highlight current developments, discuss future technology needs, and identify key action needed to move forward in India with a particular focus on innovation and research and development as well as deployment of innovative technologies in concrete and cement manufacturing.

Event participants

Representatives from the CSI, TERI, ECRA, Indian government (Ministry of Environment and Forests, Central Pollution Control Board), National Council for Cement and Building Materials (NCCBM), Indian cement producers, Cement Manufacturers' Association (CMA) India, Financing bodies (IFC, Rabo India Finance), Equipment suppliers (FLSmidth, KHD Humboldt Wedag AG India, Polysius India), Academia (Columbia University), the International Energy Agency (IEA) and others.

Summary

1. Alternative fuels and raw materials

The Indian cement sector is among the most efficient cement sectors in the world, with close to world best performance in energy consumption. However, there remains tremendous scope for greater utilization of alternative fuels and raw materials (AFR) in India, and optimization of existing grinding technologies. Both options would contribute further to greenhouse gas reductions. AFR usage in India is currently hampered by a lack of appropriate infrastructure and transport structures. For instance, the sector is ready to co-process hazardous wastes but needs a signal from the Central Pollution Control Board to go ahead, and with proper guidelines for use. Use of fly ash is limited by the cost margins in transportation. However there is significant use of slag as an alternative raw



material. The sector called for the Indian government to incentivize the usage of AFR e.g. by relaxing the limit on fly ash proportion allowed in cement, currently at 35%.

2. Optimisation of existing technologies

There was acknowledgement that much potential remains in India for optimization of existing technologies, and that doing so will make an important contribution to reducing GHG emissions from the sector.

Existing options for GHG abatement still awaiting absorption into the Indian cement sector include waste heat recovery for co-generation of power (high cost of technology import being a key barrier), and usage of AFR / co-processing of hazardous wastes (transport, lack of usage / regulatory frameworks and guidelines are barriers)

3. Future technologies e.g. Carbon Capture and Storage (CCS), Reduced Emissions Oxygen (REO) kilns

Potential future technologies such as Carbon Capture and Storage (CCS) were also discussed at the Forum, with the conclusion that new technologies were generally available in principle, but that further development is necessary, and a significant reduction in implementation costs (from capture, transport and long-term storage) is needed before such technologies will become economically feasible for the cement sector.

The IEA presented their plan to develop technology roadmaps for selected industry sectors, indicating that these roadmaps can potentially provide a clear, long-term framework as a platform for dialogue between governments, finance institutions and industry to decide how to pave the way toward new technologies in each sector. The IEA views CCS as the only currently feasible option that can provide the deep cuts in CO₂ emissions needed in the cement sector.

The IFC, presenting on financing mechanisms, noted that whilst they were keen to fund waste heat recovery, AFR and biomass projects in the Indian cement sector, projects must be commercially viable to secure funding, which casts a doubt on financing for CCS projects.

It is clear that research collaboration between all key stakeholders – industry, suppliers, academia, research organizations and governments – is critical if a breakthrough clean technology for the cement sector is to be found, potential technologies be further developed. But even so costs to the cement sector to implement these new technologies have to first be reduced. At the same time, the sector should stress that concrete as a construction material is and should be considered part of adaptation efforts against climate change.

Presentations:

Presentations from all the sessions can be downloaded from the TERI website.

http://bcscd.teri.res.in/index.php?option=com_content&task=view&id=155

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