



CENTER FOR INTERNATIONAL ENVIRONMENTAL LAW

## **Climate Change and Technology Transfer: Principles and Procedures for Technology Transfer Mechanisms under the UNFCCC**

**Side Event – UNFCCC Climate Change COP, Poznan, Poland  
2 December 2008  
6pm – 7.30pm**

### **Report of the Meeting**

#### **I. Introduction**

Transfer of technology is one of the pillars of any international response to global climate change. The Kyoto Protocol was built on a basic political bargain. On one side, under the first commitment period, industrialized countries would take primary responsibility for emissions reductions. They would provide a demonstrated example of carbon-free development, while transferring technology that would enable developing countries to make progress in reaching the same level of carbon efficiency. Thus, carbon leakage, i.e. the shifting of polluting carbon-inefficient industries from industrialized to developing countries, would be avoided. The success of the first phase would then enable developing countries to take on emissions reduction obligations in the second commitment period along a clean development path.

Industrialized countries, however, have largely failed to provide measurable, reportable, verifiable, and effective transfer of environmentally sound climate-related technologies. This failure was a primary bone of contention during the Bali Conference in December 2007, and lay behind the refusal of developing countries to agree to take on specific emission reduction obligations in the post-Kyoto period. The Bali Action Plan identifies technology transfer as a key element leading up to 2012 and beyond and refocuses the work of the UNFCCC's Expert Group on Technology Transfer (EGTT).<sup>1</sup> However, beyond the failure of political will, the basic failure of technology transfer has been institutional. There is little or no understanding of the specific institutional mechanisms needed to ensure effective technology transfer, at the national level in developing and industrialized countries, and at the multilateral level to connect differing national actors and achieve multilateral mitigation and adaptation goals.

CIEL's discussion panel aimed to bring a practical, problem-solving approach to the issue of technology transfer under the United Nations Framework Convention on Climate Change (UNFCCC) by focusing on first principles and basic questions such as definitions, mechanisms and institutions. It is the first meeting in a series that will continue to detail and elaborate the set of national and multilateral elements necessary for successful technology transfer. Crucial to this process is the participation of clean technology industry in enabling practical approaches from civil society and government delegates. The primary audience for this meeting was the broader group of civil society groups that are only beginning to fully formulate positions and viewpoints on technology transfer. CIEL hopes to provide its partners with the tools necessary to properly evaluate and analyze the various options on the table from the perspective of actually achieving technology transfer.

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<sup>1</sup> See UNFCCC Conference of the Parties Decision [3/CP.13](#)

Presentations at CIEL's discussion panel described the national and multilateral elements necessary to enhance capacity building and technology transfer at all points along the technology chain, including the necessity for accurate definitions; described some of the issues and barriers needed to achieve technology transfer within the UNFCCC process; and briefly began a discussion about the needs and views of clean technology industry with respect to technology transfer. Each presentation was followed by a short question and answer session.

## **II. Presentations and Discussions**

Presentations were made by Dalindyabo Shabalala (Center for International Environmental Law), and Chee Yoke Ling (Third World Network), with comments by Steve Sawyer (Global Wind Energy Council). John Charles Nordbo (WWF Denmark) chaired the meeting. There were over 50 participants in the meeting, from all stakeholder sectors, including NGOs, government representatives, academics, industry, as well as multilateral agencies and secretariats.

### ***Institutional Frameworks for Technology Transfer: What should the UNFCCC do, what should developing countries do, and what should industrialized countries do?***

Dalindyabo Shabalala began his presentation, saying that he thought it was a good time to return to first principles and examine the issue of how, practically, a technology transfer system should work. He noted that while there has been significant discussion on technology transfer in the UNFCCC, the issue is not sui generis: there is a long history of discussions on technology transfer beginning in the New International Economic Order debates in the trade and development arena, as well as in other multilateral environmental declarations and agreements, such as Chapter 34.18 of Agenda 21 from the 1992 Rio Declaration. He described the development of the divergence between what developing countries have expected in the inclusion of technology transfer provisions in agreements, such as the Convention on Biological Diversity, and what industrialized countries have conceived those provisions to entail. He noted that while developing countries expected significant access to technologies on grant or concessional terms, industrialized countries have primarily focused on investment as a way to fulfill technology transfer obligations, and have increasingly equated investment with technology transfer. He called for a return to some of the original conceptions of technology transfer as outlined in Chapter 34 of Agenda 21.

Mr. Shabalala then addressed the question of what were the necessary national elements to ensure a workable technology transfer mechanism. He noted that one of the major problems for a mechanism are information and transaction costs related to identification of technologies and identification of technology holders, patent status of technologies, and information about licensing terms. He noted that States had an important role in enabling actors in recipient and provider countries to connect, as well as in providing a means to enable access to technologies on grant and or concessional terms. He emphasized that actors in such transactions were not just talking about access to goods, but access to the knowledge of how to use, adapt and reproduce the technologies both for domestic consumption and for export. As a way to address some of these issues, Mr. Shabalala described some of the national elements needed to address information and transaction costs. He described several points including:

- the necessity for recipient countries to carry out technology needs assessments;
- the need for a mechanism to communicate such assessment to actors in provider countries;
- the need for national focal institutions in developing and industrialized countries with the capacity and authority to address the issue of information costs and that would be responsible for such things as:
  - o doing technology needs assessments
  - o carrying out patent landscaping exercises to determine the patent status of certain technologies

- providing a platform for negotiating technology licenses on grant, concession, preferential and/or commercial terms
- coordinating national financing mechanisms for technology transfer

He concluded by asking the group to suggest further elements that are needed at the national level.

***Issues for Technology Transfer under the UNFCCC: Barriers and Options – Followed by short Q&A***  
Chee Yoke Ling, Third World Network

Chee Yoke Ling began by noting that the UNFCCC is a legally binding agreement that presents a good framework of principles for addressing technology cooperation and sharing. Rather than spending time trying to renegotiate it, as some countries seem to be trying to do, it is now time to actually focus on implementing it. It is the implementation of these obligations that has been severely disappointing.

Ms. Chee described some of the major difficulties for developing countries as they face the challenge of addressing the negative impacts of climate change, and discussed climate mitigation while pointing out the serious problems of poverty and development. Developing countries, she noted, start from a much lower historical base of development than industrialized countries, and have a huge gap to make up if they are to provide reasonable standards of living for their populations. However, a carbon dependent development pathway has been narrowed and almost closed off by the activities, both historical and ongoing, of industrialized countries. If developing countries are to adapt to the negative impacts of climate change and to continue to address poverty and sustainable development, they will need new and alternative technologies and they will need financial assistance in making the transition to a low carbon development path. Financial assistance is both a moral imperative and a practical imperative as there are insufficient resources in developing countries to do what is needed. There is also a legal commitment under the UNFCCC for industrialized countries to provide additional financing.

Ms. Chee noted that while there has been a major financial crisis, it was just part of a larger set of systemic symptoms that include the environmental crisis. What this means is that business as usual cannot operate anymore, if we are to address climate change, and that is especially true in the area of technology flows. There must be a fundamental change in the way knowledge and technology are produced and disseminated, and we must focus on joint research and development with the public sector taking a lead role in financing and on ensuring the use, uptake, adaptation of technologies to local conditions. She argued that the international intellectual property system must change and adapt to the need for ensuring sustainable carbon free development and that barriers to technology flows should be removed.

Ms. Chee noted that we should not presume that developing countries are not already taking actions, both for adaptation and for mitigation. In a sense they already have to, if they are to address the negative impacts of climate change. The problem is that these actions must all be scaled up massively and that can only occur if industrialized countries deliver on real financing. Finally, she noted that developing countries have worked hard to present real proposals for how to address technology cooperation and sharing under the UNFCCC. She pointed to the G77 plus China proposal for a new technology mechanism under the UNFCCC, as well as the proposal for a financing mechanism. She hoped that industrialized countries would fully engage with the proposal.

***Commentator – Steve Sawyer, Secretary General, Global Wind Energy Council***

After noting that, generally, technology transfer discussions have been insufficiently concrete for industry to be usefully engaged in, Steve Sawyer noted that there should be real attention paid to the differentiation between the skills that States can bring to the table and that private enterprise can bring. Mr. Sawyer argued that States should not be in the business of managing technology transfer, especially where already effective commercial relationships are ongoing. However, he noted that, where commercial activity fails

at meeting needs, such as in addressing the adaptation needs in many of the poorest and most vulnerable countries, States may indeed have a large financing role to play in achieving adaptation goals. Any mechanism needs to think very clearly about what the private sector is best at doing and what the State is best at doing. He agreed with Ms. Chee that cooperative R&D is a good approach, noting that, among the most successful policy tools used by countries, such as China, have been joint venture requirements and local content requirements for investments in clean technology industries. This has pushed commercial actors to train and build up local suppliers and transfer skills and know-how.

More generally, any mechanism must focus on ensuring maximum uptake of existing technologies and should focus on cooperative R&D for future technologies.

Mr. Sawyer also noted that with respect to financing, realism suggests that OECD countries will not be able to provide all the financing necessary to meet the costs of climate change mitigation and adaptation in non-Annex 1 countries. Financing will have to be mobilized from the private sector as well.

The discussion that followed included questions about the role and effectiveness of the Clean Development Mechanism in transferring technologies; the limits of markets in many developing countries to actually provide incentives for technology transfer; and the possibility of using the Montreal Protocol mechanisms as a model.

### **III. Conclusions and Follow-up**

The CIEL organized meeting showed that while there had been many discussions related to technology transfer, there remained significant lack of knowledge regarding the concrete mechanisms by which technology transfer may take place and the role that intellectual property may play as a barrier. There is still a need for analytical frameworks for evaluating proposals as well as for making the discussion more concrete.

CIEL will follow up this meeting with a workshop in the first half of 2009, as well as civil society meetings to work towards common positions on technology cooperation and sharing. CIEL will produce a State of Play Briefing paper on Technology Transfer in the UNFCCC, as well as a broader Working Paper reflecting on Principles and Procedures for Technology Transfer Mechanisms under the UNFCCC.