

**DEVELOPMENT AND TRANSFER OF TECHNOLOGIES
UNFCCC EXPERT WORKSHOP**

ON

TECHNOLOGY INFORMATION

**TSINGHUA UNIVERSITY, BEIJING,
PEOPLE'S REPUBLIC OF CHINA
18-19 APRIL 2002**

1. Background

The need to enhance the access of developing countries, within the UNFCCC process, to information on state-of-the-art environmentally sound technologies has been recognized since the first session of the Conference of the Parties in 1995. Since then, issues relating to information systems of ESTs including a clearing house and international, regional and sub-regional technology information centers and networks have been considered at various subsequent sessions of the COP and the SBSTA.

The technology information component of the framework for effective and meaningful actions to enhance the implementation of Article 4.5 of the Convention (Decision 7/CP.7) defines the means, including hardware, software and networking, to facilitate the flow of information between the different stakeholders to enhance the development and transfer of environmentally sound technologies. Technology information is of vital importance for effective implementation of the full range of technology transfer activities under the UNFCCC, including technology needs assessments and implementation of technology transfer activities. Possible roles for technology information includes:

- ❑ Information on ongoing and planned technology cooperation projects, including those submitted in national communications of Annex I Parties and in initial national communications of Non-Annex I Parties;
- ❑ Information on technology performances and costs, case studies of successful projects, and analytical tools to evaluate and rank technologies and activities;
- ❑ Information on, and networks of technical experts who can assist countries with the implementation of needs assessments and design implementation of technology transfer activities;
- ❑ Information on, and network of business and investors and systems to promote business to business matchmaking and provide project development support;
- ❑ Networks and information tools that can link country technology transfer needs with existing and planned donor programs supporting the implementation of technology needs assessments by developing and countries in transition.
- ❑ Information on methods for assessing technologies and conducting needs assessments and examples of assessments and technology transfer activities implemented by other countries;

Each of these and other roles and approaches for providing technology information will be discussed during the workshop.

The secretariat has pursued, since 1999, a project to establish an inventory of technology cooperation programmes and projects. The inventory, containing some 1,650 projects and programmes, focuses on technologies that are actually being developed, diffused and transferred as a result of climate-change-related assistance and cooperation. At present, the inventory includes information on Global Environment Facilities climate projects, projects cited in the national communications of Annex I Parties and initial national communications of Non-Annex I Parties, projects cited in submissions during the technology transfer consultative process, projects identified by OECD DAC, the US Technology Cooperation Projects report and some bilateral projects (e.g., USAID, CIDA, GTZ).

The secretariat has also designed and developed a web-based prototype technology transfer information system/clearing house (TT:CLEAR)¹, which, inter alia, makes this inventory available on the Internet. The system complements and works with existing web sites/clearing houses of other relevant international organizations and national/regional technology information centres. It has the potential to act as a gateway for fast access to up-to-date information on the latest technology transfer projects, environmentally sound technologies and know-how, and organizations and experts involved in the development and transfer of technologies. The prototype is seen as a first step towards establishing a network of national and regional technology information centres, and is experimental.

In addition to such global, regional and national centres, some Parties and international organizations have noted the importance of also establishing networks of technical experts and business representatives who can provide direct technical support for country activities and facilitate business and investor matchmaking. Several pilot networks have been established and are under development. This concept will also be further discussed during the workshop.

At its fifteenth session, the SBSTA invited the Parties and relevant international organizations to register and test the prototype system and to submit their views to the secretariat by 15 February 2002 on: the technical paper FCCC/TP/2001/2 (describes in detail the UNFCCC technology transfer information clearing house); the issues identified in the annex to document FCCC/SBSTA/2001/4 (issues related to the coverage and performance of the prototype system); the roles of Parties in supporting the technology information system; and any feedback on testing the system. It further requested the secretariat to continue its work on the technology information system, drawing on links between its work and the work of existing institutions and networks, in particular, information relating to adaptation technologies; and to explore the feasibility of including information on private and publicly-owned technologies, joint research and development programmes, examples of success stories and case studies on technology transfer.

2. Purpose of the Meeting

The objectives of the present meeting are to:

- a) Identify the most important roles and contributions of technology information in supporting implementation of technology needs assessments and technology transfer activities under the Article 4.5 of the convention;
- b) Review existing global, regional and national approaches for delivery of technology information and identify opportunities to build on these approaches and needs for new activities;

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- c) Develop concrete recommendations on the most effective approaches for delivery of technology information, including review the users feedback received during TT:CLEAR prototype testing period and to further define users needs, criteria for quality control, technical specifications and the role and contribution of the Parties;
- d) Discuss options for the establishment of a technology information clearing house and enhancement on information centers and networks;
- e) Discuss options for building from, and establishing networks of, technical experts and businesses who can support implementation of needs assessments and technology transfer activities;
- f) Identify, in collaboration with regional centers and other institutions, gaps in existing EST inventories, in view of updating and/or developing inventories as needed;
- g) Coordinate technology information activities with Parties and relevant United Nations agencies and other international organizations and establish means for information sharing;
- h) Share experience in establishing, maintaining and operating technology information clearing houses, information centers and networks.

3. Provisional Programme²

The provisional programme for the workshop includes nine (9) sessions (see the Annex). Each session, with the exception of the first one, would have a chair and note takers who would both facilitate discussions and prepare a summary of the comments and recommendations coming from the discussions.

5. Expected Outcomes

- ☐ Analysis of different options for establishing a technology information clearinghouse and enhancing existing/establishing a climate change technology information and experts network;
- ☐ Review of approaches for sharing and delivering technology information and guidance for establishing synergies between different ongoing activities;
- ☐ Review of user's feedback on their experience in using TT:CLEAR and guidance for further developments;
- ☐ Identification of possible activities/actions of the different stakeholders.

6. Participation

Participation is encouraged from governmental, national and international organizations, research centers, business community and NGOs engaged in establishing, maintaining and/or operating technology information clearing houses, databases and web sites of technologies conducive to mitigation and adaptation to climate change, inventories of technology needs, technology transfer centers, expert networks and matchmaking systems, bilateral and multilateral technology information activities and donor coordination activities. To ensure maximum effectiveness in the exchange of information, participants should be

² The Agenda will be finalized upon receipt of Participation Forms and proposals for presentations.

experts actively involved in the subject of the meeting. The participants are encouraged to register with TT:CLEAR and explore its capability before the meeting.

PRELIMINARY AGENDA

DAY 1: APRIL 18TH

Time	Session Title	Objectives/Remarks
08:00 - 09:00	Registration of participants	
SESSION 1: OPENING³		
09:00 - 09:45	Welcoming remarks and opening of the workshop Mr. Guangsheng Gao, <i>Chinese Government</i> Prof. Jiankun He, <i>Tsinghua University</i> Janos Pastor, <i>UNFCCC secretariat</i>	
09:45 - 10:00	Development and transfer of technologies under the UNFCCC -the Marrakech accords & beyond Wanna Tanuchaiwatana, <i>UNFCCC Secretariat</i>	Present the workshop objectives and programme and give an overview recent technology transfer implementation activities under the UNFCCC
SESSION 2: ROLE OF TECHNOLOGY INFORMATION IN TECHNOLOGY TRANSFER IMPLEMENTATION. CURRENT MULTILATERAL TECHNOLOGY INFORMATION ACTIVITIES⁴ Chair: Kok Kee Chow		
10:00-13:00	UNFCCC secretariat technology information system Iulian Florin Vladu, <i>UNFCCC Secretariat</i> GEF Project Map - Availability of Integrated Operational and Financial Data pertaining to Environmental Investments and Projects Tay Boon-Tiong, <i>GEF</i> The UNEP-GEF Networks - A Cross Cutting Support System for Technology Transfer Practitioners Frank Ritner, <i>UNEP-GEF</i> and Quan Yi, <i>UNEP expert</i>	Give an overview of the UNFCCC technology information system and present latest developments http://ttclear.unfccc.com/ttclear/Jsp Present a systems to tack climate change donor programmes and match country technology transfer action proposals with donor programs http://www.gefweb.org/ Present a project on a technology transfer network covering the scope of all MEA http://www.sustainablealternatives.net/

³ Some 80 participants, including local officials and experts, are expected to attend sessions 1 and 2, which will take place in a bigger room.

⁴ See also the World Bank Development Gateway programme at <http://www.developmentgateway.org/>

11:00 – 11:15	Break	
	<p>Technology Information Clearinghouse under the Montreal Protocol Rajendra Shende, <i>UNEP-DTIE</i></p> <p>IEA CADDET and Greentie Debra Justus, <i>CTI (for IEA-EETIC⁵)</i></p> <p>CTI activities of technology information Debra Justus, <i>CTI</i></p> <p>Knowledge Network for Industrial Technology Transfer Peter Pembleton, <i>UNIDO</i></p> <p>Build up Global Directory of Environmentally Sound Technologies Ming Chen, <i>UNEP-IETC</i></p> <p>Technology Dynamics and Carbon Mitigation – from IIASA⁶ CO₂DB Database Leo Schrattenholzer and Bing Zhu, <i>IIASA</i></p>	<p>A decade of the Experience and the Challenges for the next Decade in developing a technology information clearinghouse under the Montreal Protocol that has now entered into the compliance regime. What lessons for the other MEAs? http://www.uneptie.org/ozonaction/</p> <p>http://www.caddet-ee.org/, http://www.caddet-re.org/, http://www.greentie.org/ http://www.climatech.net/</p> <p>http://www.unido.org/doc/310797.htmls</p> <p>http://www.unep.or.jp/webm/</p>
13:15 – 14:15	Lunch	
SESSION 3: NEEDS AND USES OF TECHNOLOGY INFORMATION IN SUPPORTING TECHNOLOGY NEEDS ASSESSMENTS Chair: Kok Kee Chow		
14:15 – 15:45	<p>Role of technology information in needs assessments in Ghana William Agyemang-Bonsu, <i>Ghana</i></p> <p>Role of technology information in needs assessments in Bolivia Javier Hanna, <i>Bolivia</i></p> <p>Donor experiences on the role of technology information in supporting needs assessment Ron Beniof, <i>CTI</i></p> <p>General discussions</p>	<p>Review and further define needs and uses on technology information in supporting technology needs assessments</p>
15:45 – 16:00	Break	

⁵ IEA Energy and Environmental Technologies Information Centres

⁶ International Institute for Applied System Analysis

SESSION 4: NEEDS AND USES OF TECHNOLOGY INFORMATION IN SUPPORTING IMPLEMENTATION OF TECHNOLOGY TRANSFER ACTIVITIES Chair: Kok Kee Chow		
16:00 – 18:15	Technology transfer and information centers in China Zhou Li, <i>Tsinghua University, China</i> Technology Information in Thailand Vute Wangwacharakul, <i>Thailand</i> Technology Information in Fiji Mahendra Kumar, <i>Fiji</i> Practical lessons on utility of the technology clearinghouse. Liu Yi, <i>expert (SEPA)</i> General discussions	Review and further define needs and uses on technology information in supporting technology transfer activities China's live experience in implementing the Montreal Protocol
18:15	END OF DAY 1	
18:30 – 19:30	Campus Tour	
19:30	Social event	

DAY 2 : APRIL 19TH

SESSION 5: ROLE OF TECHNOLOGY INFORMATION IN DONOR PROGRAMMES. EXAMPLES OF REGIONAL, COUNTRY, AND BILATERAL TECHNOLOGY INFORMATION ACTIVITIES Chair: Kok Kee Chow		
09:00-10:30	Bilateral cooperation on technology information Virginia Gorsevski, <i>USA</i> Cleaner Production Germany Holer Liptow, <i>Germany</i> Canada Alexandra Mallett, <i>Canada</i>	Review current regional, country, and bilateral technology information activities in donor programmes
	Denmark Yieng-Kow Vivi, <i>Denmark</i> Japan Morihiro Kurushima, <i>Japan</i> France Arthur Riedacker, <i>France</i> Aid targeting the Rio conventions Julia Benn, <i>OECD-DAC</i>	Video presentation

	General discussions	
10:30-10:45	Break	
SESSION 6: FEEDBACK TO UNFCCC TECHNOLOGY INFORMATION SYSTEM. ROLE AND CONTRIBUTIONS OF PARTIES Chair: Kok Kee Chow		
10:45 – 12:00	Summary of submissions from Parties (FCCC/SBSTA/2002/Misc.12) Florin Vladu, <i>UNFCCC secretariat</i> General discussions	Review feedback to using TT:CLEAR and discuss possible actions to further develop the system. Discuss the role and contributions of the Parties in supporting TT:CLEAR
SESSION 7: OPTIONS FOR ESTABLISHMENT OF AN INFORMATION CLEARINGHOUSE Chair: Kok Kee Chow		
12:00 – 13:30	Panel of experts. Panel members: Li Liyang, <i>China</i> Andrea De Angelis, <i>Italy</i> Jukka Uosukainen, <i>Finland</i> Anthony Adegbulugbe, <i>Nigeria</i> Lambert Gnapelet, <i>Central African Republic</i> Carlos Grezzi, <i>Uruguay</i> General discussions	Evaluate possible options for establishment of an information clearinghouse by further enhancing and building from existing/proposed global, regional and local technology information clearinghouses based on the needs identified in the earlier sessions.
13:30 – 14:30	Lunch	
SESSION 8: TECHNOLOGY TRANSFER NETWORKS AND MATCHMAKING SYSTEMS Chair: Kok Kee Chow		
14:30 – 16:00	Panel of experts. Panel members: Daniel Bouille, <i>Argentina</i> Petre Zhou, <i>Botswana</i> Paul Schwengels, <i>USA</i> James Ramsey, <i>expert</i> Florin Vladu, UNFCCC General discussions	Evaluate possible options for establishing a technology transfer network, including networks of international technology experts who can advise countries in conducting needs assessments and design and implementation of technology transfer actions, business and investor networks to facilitate business input in the identification of needs and design of actions and business-business partnering to advance technology implementation and investment and systems to match country technology transfer action proposals with donor programs;
16:00 – 16:15	Break	
SESSION 9: POSSIBLE ELEMENTS FOR FUTURE WORK		
16:15 – 18:00	Working Group Discussion	Discuss further work required to develop effective technology information systems and draft recommendations on next steps.
18:00 – 18:15	Concluding Remarks	Chair presents concluding remarks
18:15	END OF WORKSHOP	

POSSIBLE ISSUES TO BE ADDRESSED IN PRESENTATIONS

Session 2. Needs and uses of technology information in supporting technology needs assessments.

- Accessing information on technology performance and costs;
- Compilation of information from past climate and sectoral studies and development plans;
- Analytical tools to evaluate and rank technologies;
- Information and expert advice on needs assessment methods and examples of needs assessments from other countries;
- Case studies of successful projects and guidance and assistance with design of technology transfer actions;
- Input from the private sector on their investment activities and interests and on barriers to sustained investment;
- Accessing information on current and planned donor programs and opportunities for linkage with these programs (including capacity building, enabling environment programs, and business project development and matchmaking).

Session 3. Needs and uses of technology information in supporting implementation of technology transfer activities.

- Information on technology performance and costs;
- Accessing information on financing opportunities;
- Networks of technical experts to assist with design and implementation of technology transfer actions;
- Business-business and investor matchmaking systems;
- Linking developing country needs with existing and planned capacity building/training programs;
- Disseminating information on technology transfer needs and action proposals to donor program managers and facilitating donor responses;
- Networks of international technology experts who can advise countries in conducting needs assessments and design and implementation of technology transfer actions;
- Business and investor networks to facilitate business input in the identification of needs and design of actions and business-business partnering to advance technology implementation and investment;
- Systems to match country technology transfer action proposals (needs) with donor programs;
- Systems to match country technology capacity building needs with existing capacity building and training programs.

General issues

- Ideas for effective integration and coordination of the various technology information activities;
- How to further enhance and build from existing/proposed information clearinghouses;
- Opportunities for sharing of information among developing and transition countries;
- Accessing information on publicly own technologies and adaptation technologies;
- Share experience in establishing, maintaining and operating technology information clearing houses, information centers and networks;

- Role and contributions of the Parties in supporting TT:CLEAR, including by providing information in their initial national communications;
- Feedback on using the UNFCCC technology information clearing house in support of conducting technology needs assessments and/or technology transfer implementation activities;
- Recommendations for possible next steps.