



**WORKING TOGETHER TO ACCELERATE
DEVELOPMENT AND DIFFUSION OF CLIMATE-
FRIENDLY TECHNOLOGIES AND PRACTICES**

Celebrating 10 Years

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The Climate Technology Initiative (CTI) marked its 10th anniversary in 2005. Since its establishment in 1995, the CTI has organised over 80 events all across the world contributing to clean energy technology transfer under the United Nations Framework Convention on Climate Change (UNFCCC) process.



CTI Executive Committee in London, UK 2005

What is CTI?

The Climate Technology Initiative (CTI) is a multilateral initiative, operating as an Implementing Agreement under the International Energy Agency (IEA). Its mission is to bring countries together to foster international co-operation in the

accelerated development and diffusion of climate-friendly and environmentally sound technologies and practices. CTI participating countries undertake a broad range of co-operative activities in partnership with developing and transition countries and other international bodies.

The CTI works closely with the UNFCCC process, including its Secretariat and the Expert Group on Technology Transfer (EGTT), relevant IEA Implementing Agreements and other international organisations and initiatives.

Background

The CTI was established at the first Conference of Parties to the UNFCCC in 1995 by 23 IEA/OECD Member Countries and the European Commission. In 2003, the CTI gained new status as an IEA Implementing Agreement. After many years of being housed within the IEA in Paris, the CTI Secretariat is located at the International Center for Environmental Technology Transfer in Japan.



CTI Side Event at the 10th Conference of the Parties Buenos Aires, Republic of Argentina 2004

The CTI's activities are designed to be consistent with the UNFCCC objectives, in particular the framework for technology transfer incorporated in the Marrakech Accords and adopted at the Seventh Conference of the Parties to the UNFCCC (2001). As an IEA Implementing Agreement, the CTI intends to continue its current programme and to extend it into new areas consistent with its overall objectives.

“For many years, the CTI and its member countries have been actively engaged in supporting technology transfer activities under the United Nations Framework Convention on Climate Change (UNFCCC). I would like to commend the CTI for its clear vision in remaining focused on activities relating to the development, diffusion and transfer of technologies. Technology is a key element in assisting Parties to achieve their commitments under the UNFCCC and its Kyoto Protocol. Climate friendly technologies continue to play a highly important role in mitigating, and adapting to, climate change; and much further work needs to be done to respond to the challenges of the future. I thank the CTI for its continued engagement and support to the UNFCCC process.”

Joke Waller-Hunter
Executive Secretary, UN Climate Change Secretariat

Who needs to know about CTI?

Anyone involved in the development and diffusion of climate-friendly and environmentally sound technologies including:

- Technology suppliers
- Technology end-users in developing and transition countries
- Project managers and engineers;
- Private sector and industry representatives
- Financial sector representatives
- Policy makers from all sectors, including public agencies, Governments, researchers, and academia.

CTI Activities

Technology Needs Assessments

The CTI has been providing technical assistance to selected countries carrying out technology needs assessments (TNA). Countries that received direct technical assistance from the CTI include Nigeria, Georgia, Ghana, Bolivia, Malawi, and the Dominican Republic between 2001 and 2004. Through coordination with the United Nations Development Programme (UNDP) and the United Nations Environment Programme

(UNEP), this technical assistance has helped to strengthen the TNA process and provided opportunities for sharing lessons learned with other countries undertaking these activities.

The CTI has always recognised that the unique conditions and challenges in a given country rule out any generic approach to technology transfer. The TNA process has proved extremely valuable in identifying priority technology sectors and bringing together key country stakeholders in developing a strategy for advancing technology transfer at a national level.

Specific activities to support TNA activities have included: extensive collaboration with the UNDP in the development of the TNA methodology handbook, including revisions to this guidance document that address technologies for adaptation; direct technical assistance to partner developing countries in organising and facilitating stakeholder meetings for technology prioritisation; provision of specific technology information to support technology review; technical review of country TNA drafts; and, follow-up support to further disseminate key findings from the TNA process.

The CTI was also a leader in the incorporation of technologies for adaptation in the TNA process. Recommendations from the 2003 CTI/UNDP Workshop in Trinidad and Tobago, which focused on this subject, were used as a key element for updates to the methodology handbook and related materials. In addition, the CTI continues to work closely with developing country partners, UNDP, UNEP, and the UNFCCC to ensure that the TNA process can effectively contribute to technology transfer in the future.



**Workshop on Technology Needs Assessment
and Technology Information for
the Caribbean Region
Port of Spain,
Trinidad and Tobago
2003**

“Technology transfer should and will normally happen under mutually beneficial and reciprocally favourable terms of agreements and through effective partnerships. Ghana was able to successfully conduct a technology needs assessment for selected sectors of our economy with technical assistance provided through the CTI. Working in collaboration with the CTI made this process more efficient and effective. We look forward to continuing our relationship with the CTI during the implementation stages of the technology needs assessment results.”

William Kojo Agyemang-Bonsu
Former Chair
Expert Group on Technology Transfer
Environmental Protection Agency of Ghana

Seminars and Symposia

Since 1998, the CTI has held 19 seminars and symposia, which were organised in support of the UNFCCC process in order to facilitate the diffusion of climate friendly and environmentally sound technologies and practices. It is estimated that about 1,900 people participated in these events.

Seminars and Symposia			
Date	Event Title	Location	Participants
Oct-05	CTI/IETA/UNIDO Joint Forum on Project Formation	Madrid, Spain	80
Feb-05	CTI Industry Joint Seminar on Technology Diffusion of Energy Efficiency in Asian Countries	Beijing, China	143
Oct-04	The Second CTI Joint Seminar on Technology Diffusion in Central and Eastern Europe and the Commonwealth of Independent States	Vienna, Austria	90
Mar-04	CTI Seminar on Technology Transfer and Diffusion in India	New Delhi, India	90
Feb-04	Industry Joint Seminar on Technology Diffusion in ASEAN and Small Island States of the Pacific Region	Jakarta, Indonesia	150
Oct-03	CTI/Industry Joint Seminar on Technology Diffusion in Eastern Europe and Central Asia	Vienna, Austria	105
Oct-03	Workshop on Technology Needs Assessment and Technology Information for the Caribbean Region	Port of Spain, Trinidad & Tobago	35
Sep-03	Sonderborg Conference on Renewable Energy on the Market - new opportunities	Sonderborg, Denmark	150
Sep-02	CTI Industry Seminar on Technology Diffusion in Asia	Beijing, China	114
Nov-01	IEA-China Seminar: Energy Efficiency Standards and Labeling	Beijing, China	110
Sep-00	CTI Joint Industry Seminar on Financing Climate Change Projects in Latin America	Madrid, Spain	84
May-00	2nd CTI/Industry Seminar for Eastern Europe on Climate Friendly Technology and the IEA Finance Forum	Warsaw, Poland	112
Mar-00	CTI Joint Industry Seminar on Technology Diffusion in Latin America and the Caribbean	San Salvador, El Salvador	135
Mar-00	Climate Technology Initiative (CTI) Seminar on Technology Transfer and Diffusion in India	New Delhi, India	100
Jan-00	CTI Joint Industry Seminar on Technology Diffusion in Asia/Pacific	Cebu City, Philippines	104
Dec-99	CTI Capacity Building Seminar: Best Practice in Climate Technology and Energy Efficiency in Central and Eastern Europe	Ostritz, Germany	67
Jul-99	CTI/Industry Joint Seminar on Technology Diffusion in Eastern Europe	Bratislava, Slovakia	124
Mar-99	CTI/Industry Joint Seminar on Technology Diffusion in Africa	Victoria Falls, Zimbabwe	50
Aug-98	CTI Seminar on Technology Diffusion in Africa	Pretoria, South Africa	41
May-98	CTI/ Industry Joint Seminar on Technology Diffusion in Asia	Beijing, China	59
*Some figures are estimated.		Total	1,884

Participants in the CTI seminars have identified barriers and needs in the fields of capacity building, technology information, institutional issues, and financing and project development.

"By attending the CTI Seminar, we have learned from the experiences of other countries about the main barriers to creating suitable policy framework for encouraging energy efficiency projects."

A Seminar participant from Vietnam at the "CTI Industry Joint Seminar on Technology Diffusion of Energy Efficiency in Asian Countries"

One participant underlined that "true capacity building goes beyond merely installing turnkey projects." There was clear sentiment that to be meaningful, capacity building must involve helping to create local and regional infrastructure and know-how that integrates cultural values, existing technologies, and local conditions.

Technology information needs called for access to neutral, high-quality information on available technologies and their applications.

One of the institutional issues often identified was the role of government as regulator, protector of property rights and initiator of public-private partnerships. One seminar participant

"In order to attain sustainable development among all countries and the overall objectives of the UNFCCC, there is a need to accelerate the transfer and development of climate related technology. Many technologies have been developed in recent years that address these pressing issues. International cooperation is the key element in addressing global warming and climate change. To this end, CTI has played an important role in the promotion of climate friendly technology in the last decade. I am confident that CTI, with its capable network, will continue to share valuable experiences, know-how and good practices for the benefit of mankind."

Chow Kok Kee
Former SBSTA Chairman
Director General,
Malaysian Meteorological Department

characterised the best role of government as "the conductor of the orchestra", but not "playing the instruments." The government can find its best role by keeping the orchestra in tune and following the music.



**CTI/Industry Joint Seminar on Technology Diffusion in Eastern Europe and Central Asia
Vienna, Austria 2003**

Implementation Activities

The CTI has been facilitating technology implementation activities identified during the technology needs assessment process.

Specific examples of CTI collaboration with partners to advance clean energy technology transfer include working with sugar mill cogeneration plants in Mauritius to identify near-term combined heat and power project

opportunities and to jointly address barriers to advancing these projects. In addition, CTI worked closely with colleagues in Senegal to provide specific training on analysis tools and methods to support national rural electrification efforts and to advance local markets for clean energy technologies such as photovoltaic and biomass systems. Both of these activities grew from technology prioritisation processes and serve as models of how the private sector and donor community can effectively work with partner governments to facilitate technology transfer.

Developing a strategy for eliminating institutional, informational or other barriers to establishing the necessary enabling environment for effective and lasting technology transfer are key outcomes from these market-oriented activities.

Training Courses

Thirty-one (31) training courses have been organised in collaboration with relevant international organisations, with a focus on the special requirements and circumstances of the target countries. It is estimated that approximately 1,600 people participated in these training courses.

"Attending CTI capacity building seminars has allowed me to share experiences with other experts from countries in the region on their use of climate friendly technologies and practices. This has greatly improved my learning curve and the ability to build internal capacity when I return home."

Dr. Igor A. Bashmakov
Executive Director
Center for Energy Efficiency
Moscow, Russia

Training Courses

Date	Event Title	Location	Participants
Oct-05	CTI Capacity-building Seminar "Climate Technology and Energy Efficiency - Sustainable Pathways to Climate Change Mitigation Policies and Management"	Leipzig, Germany	71
Sep-05	8th CTI Workshop on Energy Efficiency for Asian Countries	Yokkaichi, Japan	14
Oct-04	5th CTI Capacity-building Seminar "Climate Technology and Energy Efficiency - Using the Kyoto Mechanisms"	Leipzig, Germany	55
Feb-04	Workshop on "The Clean Development Mechanism and its Possible Contribution to Sustainable Energy Policy"	Mexico City, Mexico	107
Oct-04	7th CTI Workshop on Energy Efficiency and Cleaner Production for Asian Countries	Yokkaichi, Japan	12
Nov-03	CTIP Tanzania Cogeneration Workshop	Dar es Salaam, Tanzania	20
Nov-03	6th CTI Workshop for Asia on energy efficiency	Yokkaichi, Japan	15
Sep-03	CTI Capacity Building Seminar for CEE/FSU Countries "Climate Technology and Energy Efficiency - Challenges and Chances for Climate Technology"	Tutzing, Germany	61
Jan-03	International Workshop on Energy Efficiency in the Philippines	Manilla, the Philippines	80
Dec-02	Africa Climate Technology Information and Needs Assessment Workshop	Dakar, Senegal	43
Dec-02	Workshop on Energy Efficiency and Environmental Management Systems	Hanoi, Vietnam	46
Nov-02	CTI Capacity Building Seminar for CEE/FSU Countries: "Climate Technology and Energy Efficiency - From "Best Practice" Experiences to Policy Diffusion"	Tutzing, Germany	65
Nov-02	Appliance Energy Efficiency Early Adoption Project Workshop	Berlin, Germany	16
Oct-02	5th CTI Workshop on Energy Efficiency and Cleaner Production	Yokkaichi, Japan	15
Oct-02	Accelerating the deployment of renewable energy/distributed generation in the Baltics	Riga, Latvia	50
Sep-02	CTI/UNDP/GEF Regional Climate Technology Information Training Workshop	Beijing, China	100
Sep-02	CTI Workshop on Energy Efficiency and Technology Diffusion	Jakarta, Indonesia	50
Dec-01	CTI Capacity Building Seminar for CEE/FSU Countries: "Climate Technology and Energy Efficiency - Disseminating "Best Practice" Experience "	Ostritz, Germany	62
Nov-01	IEA/CTI Workshop on Regulatory Framework for Energy Third Party Financing in Central Europe	Budapest, Hungary	40
Oct-01	4th CTI Workshop on Energy Efficiency and Cleaner Production	Yokkaichi, Japan	14
Aug-01	Co-Operative Technology Implementation Plan: Workshop on Action to Stimulate Clean Technology Investment in the Southern Africa Region	Gabarone, Botswana	50
May-01	CTI Seminar on Effective Means of Transferring Climate Technologies and Practices	Szentendre, Hungary	60
Mar-01	Latin America and Caribbean Training Course on Standards and Labelling	Buenos Aires, Republic of Argentina	115
Feb-01	Workshop on Policies to Accelerate Renewable Energy Market Deployment	New Delhi, India	150
Sep-00	CTI Capacity Building Seminar: Climate Technology & Energy Audit as a Tool for Improved Energy Efficiency	Tallin, Estonia	72
Sep-00	3rd CTI Workshop on Energy Efficiency and Cleaner Production	Yokkaichi, Japan	15
Aug-00	CTI Latin America Regional Workshop on Energy Efficiency Standards and Labels	Mexico City, Mexico	55
May-00	Southern Mediterranean Training Course on Climate Friendly Technologies	Naples, Italy	19
Dec-99	CTI Capacity Building Seminar: Best Practice in Climate Technology and Energy Efficiency in Central and Eastern Europe	Ostritz Germany	66
Sep-99	2nd CTI Energy Efficiency Workshop	Yokkaichi, Japan	15
Sep-99	Southern African Development Community (SADC) Climate Change Workshop	Gabarone, Botswana	100
Mar-99	CTI Training Course on Energy Efficiency, Information, Generation, End-Use, and Transportation Technologies-Training Course for the Caribbean Region, Central America, and Mexico	Tampa, Florida, USA	45
Oct-98	1st CTI Energy Efficiency Workshop	Yokkaichi, Japan	14

*Some figures are estimated.

Total **1,653**

Over the years, the training courses have become one of the most important and effective activities of the CTI. The subject matter of these courses evolved from general to specific in order to best reflect the needs of the target countries. The CTI will continue to offer these courses in different regions of the world and to cover a range of subjects that reflect the CTI mission.



**CTI Seminar on Technology Transfer and Diffusion
India New Delhi, India 2004**

The participants at the training courses appreciated the work undertaken by the CTI and urged it to continue this activity as these courses support the creation of appropriate conditions for investments in clean energy and energy efficiency and stimulate a stable policy and legal environment, including a contractual infrastructure. Also, they urged that the CTI continue to organise seminars that bring together government officials, representatives from the

financial sector and project developers to identify barriers and measures that address them.

The CTI recognises that the strengthening of technological, human and institutional capacity is essential for successful transfer of climate-friendly technologies and practices.

Information Dissemination

One objective of the CTI is to facilitate information dissemination amongst governments, industry, academia and relevant international and other organisations.

The CTI Awards Program, in place from 1999 to 2002, recognised individuals and organisations that have demonstrated outstanding achievements in furthering the goals of technology transfer under the UNFCCC.

The CTI organises side events at UNFCCC conferences to share experiences and lessons learned from CTI-supported technology transfer activities in collaboration with developing and transition country partners. These side events have been well-received by many and are viewed as providing vital forums for exchanging views among key stakeholders.



Information Dissemination			
Date	Event Title	Location	Participants
May-05	CTI Side Event at the 22th Subsidiary Body Meetings "Transfer of climate-friendly technologies: two case studies in China-Japan steel industry cooperation, and GTZ's energy project in India"	Bonn, Germany	40
Dec-04	CTI Side Event at the 10th Conference of the Parties: Climate friendly technologies: roles of the governments, business and finance sector	Buenos Aires, Republic of Argentina	50
Jun-04	CTI Side Event at the 20th Subsidiary Body Meetings: Climate friendly technologies: the role of governments, business and the finance sector	Bonn, Germany	40
Dec-03	CTI Side Event at the 9th Conference of the Parties: Incorporating Adaption Issues in the Technology Needs Assessment Process	Milan, Italy	50
Jun-03	Side Event at the 18th Subsidiary Body Meetings: CTI Country Experiences with Technology Needs Assessments and Steps Toward Operationalizing Opportunities Identified	Bonn, Germany	50
Oct-02	2002 CTI Awards Ceremony at the 8th Conference of the Parties	New Delhi, India	50
Oct-02	Side Event at the 8th Conference of the Parties: Technology Transfer Experiences	New Delhi, India	50
Jun-02	Side Event at the 16th Subsidiary Body Meetings: Country Experiences with Technology Needs Assessments and Technology Transfer Implementation	Bonn, Germany	40
Nov-01	2001 CTI Awards Ceremony at the 7th Conference of the Parties	Marrakesh, Morocco	50
Nov-01	Side Event at the 7th Conference of the Parties "Technology Transfer Methods and Country Experiences"	Marrakesh, Morocco	50
Nov-00	2000 CTI Award Presentation Ceremony at the 6th Conference of the Parties	The Hague, Netherlands	100
Nov-00	Side Event at the 6th Conference of the Parties: Uncovering Truths and Dispelling Myths Case Studies of Successful Climate-Friendly Technology Transfer	The Hague, Netherlands	120
Nov-00	Side Event at the 6th Conference of the Parties: International Collaborations on Research and Development in the Field of Energy and Environment	The Hague, Netherlands	100
Sep-00	Side Event at the 13th Subsidiary Body Meetings: Technology Transfer Experiences & Methods	The Hague, Netherlands	60
Nov-99	Side Event at the 5th Conference of the Parties: Technology Transfer Experiences	Bonn, Germany	50
Nov-99	1999 CTI Award Presentation Ceremony at the 5th Conference of the Parties	Bonn, Germany	89
Oct-99	Side Event at the 5th Conference of the Parties: International R&D Collaboration on Energy and Environment	Bonn, Germany	70
Jun-99	Side Event at the 10th Subsidiary Body Meetings: International Collaborative Activities on Research and Development in the Field of Energy and Environment	Bonn, Germany	46
Jun-99	Side Event at the 10th Subsidiary Body Meetings: CTI Technology Diffusion Seminar	Bonn, Germany	50
Nov-98	Side Event at the 4th Conference of the Parties: Climate Technology Initiative Information Session	Buenos Aires, Republic of Argentina	70
*Some figures are estimated.		Total	1,225

Future Work of the CTI

During the past ten years, the development surrounding the UNFCCC process has called for enhanced cooperation among all stakeholders to accelerate development and diffusion of climate-friendly technologies and practices. Given such circumstance, the CTI has renewed its commitment to work closely with both the public and the private sectors.

Enhancing the transfer of climate-friendly technologies, or encouraging foreign direct investment and trade flows into climate-friendly directions, is challenging but possible.

The CTI plays its most valuable role as a facilitator, offering a liaison between governments, donors, industry, financiers, and other stakeholders. Through seminars and workshops, the CTI will continue promoting policies and institutional changes that can lead to the removal of barriers and increase the market penetration of climate-friendly technologies.

"As the Climate Technology Initiative (CTI) commemorates its Tenth Anniversary, I recall with pride having been presented in 1999 with one of the First Climate Technology Leadership Awards in recognition of my pioneering role in the development and diffusion of world class renewable energy technologies in India. This recognition provided a stimuli to me to continue to provide leadership in enhancing the role of renewable energy technologies with regards to confronting the threat of climate change and overall contributing to providing a cleaner and greener environment. I would also like to take this opportunity to compliment the CTI on the excellent work done by it, over the last many years, with regards to promoting the diffusion of clean energy technologies especially from the developed countries to the developing countries."

Rakesh Bakshi
Chairman, RRB Consultants and Engineers Pvt. Ltd., India

CTI Member Countries

Austria
Canada
Denmark
Finland
Germany
Japan
Norway
United Kingdom
United States of America

Publications

Recent CTI publications include the following:

- Methods for Climate Change Technology Transfer Needs Assessments and Implementing Activities: Experiences of Developing and Transition Countries
- Technology Without Borders: Case Studies of Successful Technology Transfer
- Key challenges in stimulating diffusion of clean technologies in Latin America (also available in Spanish)

How to contact CTI?

For more information about the CTI and participating in its activities:

- consult the website
<http://www.climatetech.net/>
- contact the Chairman of the CTI Executive Committee, Mr. Elmer Holt, at elmer.holt@hq.doe.gov
- contact one of the Vice-chairmen of the CTI Executive Committee,
Mr. Terry Carrington, at terry.carrington@dti.gsi.gov.uk, or
Mr. Toshi Sakamoto, at sakamoto-toshiyuki@meti.go.jp
- contact the CTI Programme Secretariat, Mr. Taiki Kuroda, at kuroda@icett.or.jp

Website

For details on any of the above CTI activities and an up-to-date list of events, please consult the CTI website: <http://www.climatetech.net/>.

Climate Technology Initiative

The Climate Technology Initiative is one of the International Energy Agency's Implementing Agreements, within the IEA's Framework for International Energy Technology Cooperation. The CTI's objective is to foster international co-operation for accelerated development and diffusion of climate friendly technologies and practices.

For more information - see www.climatetech.net.