Potential implications of intellectual property for access to clean energy technologies.

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Use of IPRs in the transfer of technology under MEAs, Geneva, August 26, 2008.

Relevant provisions of the UNFCCC

"The developed countries and other developed countries in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of or access to environmentally sound technologies and know how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention."…

Article 4.5

"The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments related to financial resources and transfer of technology.."

Article 4.7

The Technology Transfer Framework

- Five key themes and areas are:
  - Technology needs and needs assessments
  - Technology information
  - Enabling environments
  - Capacity-building
  - Mechanisms for technology transfer

The Expert Group on Technology Transfer (EGTT)

- The EGTT
  - was established as part of the technology transfer framework and the Marrakech Accords (decision 4/CP.7) and re-established in Bali (decision 3/CP.13)
  - comprises 19 members (three from each of the Africa, Asia, and the Pacific and the Latin America and the Caribbean regions, two from AOSIS, seven from AI Parties, and three from IGOs (to be invited on issues oriented basis).

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Technology Needs Assessments

- 94 countries conducted technology needs assessments;
- TNAs were so far prepared by 53 countries;
- Synthesis report of TNAs was presented to SBSTA 24;
- Technology needs reported as part of the second NCs of NAI Parties;
- Reporting format - considered by SBI 25.

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Technology Information

- A workshop on technology information was organized in Beijing in 2001;
- The Convention secretariat designed and developed a web-based technology transfer information system/clearing house (TT:CLEAR);
- Complements and works with existing web sites and clearing houses of other relevant international organizations and national/regional technology information centres;

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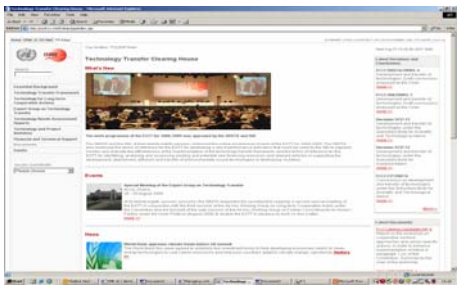
The Technology Transfer Framework



- TT:CLEAR acts as a gateway for access to up-to-date information on the latest technology transfer projects and case studies of technology transfer, ESTs and know-how.

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Enabling Environments for Technology Transfer

- As the component of the technology framework focuses on government actions (fair trade policies, removal of barriers, economic and regulatory framework, transparency);
- Creates a conductive environment to public and private sector technology transfer;
- Purpose – to improve the effectiveness of the transfer of ESTs;

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Enabling Environments for Technology Transfer

- Workshop on enabling environments for technology transfer was organized in Ghent in 2003 and its report was considered at SBSTA 18;
- Technical paper on enabling environments for technology transfer was prepared for consideration by SBSTA 18;
- Working paper on overview of IPR practices for publicly-funded technologies was prepared by EGTT, CTI and US-DOE;

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New Focus on Enabling Environments (Decision 3/CP.13)

- Preparation of technical studies on barriers, good practice and recommendations for developing enhanced enabling environments that accelerate technology development and transfer at national and international levels (to cover trade related issues, technology development, and technology push and market pull factors);
- To encourage Parties to avoid those trade and IPR policies restricting transfer of technology;
- Close cooperation with public and private sector partnerships is the key issue;

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Capacity Building

- Technical paper on capacity-building on technology transfer was developed and was considered by SBSTA;
- EGTT considered capacity-building as cross cutting activities, hence further activities in this area were conducted as integrated activities with other work.

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Key Challenges

- How to transform many good ideas into real and practical actions in particular those referred to actions by Parties, relevant international organizations and the private sector?
- Who could play a catalytic role to make these happen?
- Which actions are sufficient to ensure effective implementation? How to monitor the progress of work?
- EGTT – review of the technology framework and adoption of set of actions @ COP 13

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Technology and international climate policy

- The UNFCCC and its Kyoto Protocol - provide opportunities for cooperation on technology development, deployment and diffusion both for mitigation and adaptation
- The Bali Road Map – two-year process to enhance international response to climate change including enhanced action on mitigation
- Industrialized countries – Measurable, reportable and verifiable (MRV) actions including quantified emission limitation and reduction objectives
- Developing countries – need for nationally appropriate mitigation actions supported and enabled by technology in a MRV manner.

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Technology and international climate policy

- Technology features strongly in the inter-governmental process on climate change and it is the central element that will enable action
- MRV mitigation action by developing countries depends on MRV technological and financial support
- Technology needs a revolutionary push
  - Criticism that insufficient progress has been made
  - Need for an effective international mechanism (removal of barriers, provision of resources)
  - All stages of technology cycle need to be addressed (from innovation to application consider funding and policy for each stage)
  - Some Parties have cited IPR and patent related issues as barriers

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IPRs and technology transfer

- Are IPRs a barrier or an aid to technology transfer?
- Different positions of developing and industrialized countries
- Developing countries:
- IPRs are a barrier and further consideration is needed on:
  - Regulating patent regimes to balance reward and access
  - Removing barriers to accessing technologies in the public domain
  - Increased costs could limit dissemination of ESTs
  - Compulsory licenses

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IPRs and technology transfer

- Are IPRs a barrier or an aid to technology transfer?
- Different positions of developing and industrialized countries
- Industrialized countries:
  - IPRs are needed to stimulate and reward
  - IPRs to promote competition
  - Strong IPRs protection helps deploy advanced technologies
  - Many existing climate friendly technologies are not protected by patents
  - IPRs are a small part of the total capital requirements

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Potential Implications of IPRs for access to ESTs in developing countries

Ongoing discussion:

- Buy down IPRs by governments – granting (purchasing) licences and access to technology - IPRs are assigned to one or more participants in the research process (institution and/or inventor);
- Joint (collaborative) R&D - including capacity building, activities take place in government-owned facilities, private companies and universities;

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Potential Implications of IPRs for access to ESTs in developing countries

- Working paper on overview of IPR practices for publicly-funded technologies:
  - Explored several types of TT pathways for government funded R&D programs in US, ROK, Canada and the UK;
  - Reveals that governments have transferred IPRs to recipient research institutions which resulted in significant increase of licenses;
  - System of compensation to the inventors seems to provide sustainable means for future innovations;
  - Larger technology benefit may be derived from joint R&D;

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Do we need a special patent regime for climate change?

- Public-private partnerships (PPP), with options such as :
  - Purchasing commitments
  - Voluntary buy-out of IPRs
  - Compulsory licensing
- Public ownership of IPRs for technologies
  - Less suitable for existing technologies
  - For energy generation technologies IPR smaller component of cost
  - Agreements with owners

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Do we need a special patent regime for climate change?

- Public ownership of IPRs for technologies (cont.)
  - Possibly more suitable for new technologies
  - Collaborative R&D, IPR as a low cost public good
  - Adaptation technologies with large element of public good
- Need for new inputs (future climate change abatement)
  - Key role of technology development and transfer
  - IPR related issues discussed in a theoretical manner
  - The process needs clarity (where IPRs are barrier)
  - How to handle IPR issues in the international climate change content?
  - Your views?

Thank you for your attention!

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