ICTSD

INTERNATIONAL CENTRE FOR TRADE AND SUSTAINABLE DEVELOPMENT

Climate Change, Technology Transfer and IPRs: Recent Developments and the Way Forward

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Background on the International Centre for Trade and Sustainable Development (ICTSD)

- **ICTSD was established in Geneva in September 1996. Its mission is to empower stakeholders in trade policy through information, networking, dialogue, well-targeted research, and capacity building, with a view towards promoting a sustainable development perspective in the international trade system.**

- **As an independent non-profit NGO, ICTSD engages with broad range of stakeholders, including governmental, non-governmental and inter-governmental actors. It plays a unique role as a provider of original, non-partisan reporting at the intersection of international trade and sustainable development. By helping parties become better informed about each other, ICTSD seeks to builds bridges between groups with seemingly disparate agendas.**

- **After Bali, ICTSD established a Global Platform on Climate Change, Trade and Sustainable Energy which is specifically aimed at contributing to effective international cooperation towards addressing climate change, by advancing analytical capacity of stakeholders and their interaction with policy makers such that effective solutions can be built and agreed by the international community at the Copenhagen COP-15, in December 2009.**

ICTSD's Programme on IPRs and Sustainable Development

- **Established in 1998, ICTSD's Programme on IPRs and Sustainable Development aims at facilitating development oriented outcomes in international trade and IP related negotiations.**

- **Currently, IP programmatic activities focus on:**

  → Integrating development concerns in international processes in the areas of trade and IP;

  → helping to implement IP norms that balance private rights and public interests;

  → maximizing incentives for innovation, creativity and technology transfer to developing countries;

  → promoting greater integration between IP, technology transfer, foreign direct investment and competition policies.

Transfer of technology and IPRs

- **Since early on, ICTSD sought to promote a better understanding of issues relating to transfer of technology and IPRs in order to advance international processes in this area, in particular through evidenced based policy oriented research.**

- **Examples of recent publications on technology transfer include:**

  ***Technology transfer in the TRIPS age: the need for new types of partnerships between the least developed and most advanced economies*, by Dominique Foray, EPFL, forthcoming 2009.**

  ***New Trends in Technology Transfer*, By John H. Barton George E. Osborne Professor Emeritus Stanford Law School, Issue Paper 18, IP and Sustainable Development Series, February 2007.**

  ***Encouraging International Technology Transfer*, by Keith Maskus, Professor of Economics, University of Colorado at Boulder, Issue Paper No. 7, IP and Sustainable Development Series, May 2004.**

  ***Nutrition and Technology Transfer Policies*, by John H. Barton, George E. Osborne Professor Emeritus Stanford Law School Issue Paper No. 6, IP and Sustainable Development Series, May 2004.**

Enhanced transfer of climate friendly technologies : A key element of a global climate change deal

- **The Bali Action Plan called for "enhanced action on technology development and transfer to support action on mitigation and adaptation, including, inter alia, consideration of:**

  (i) Effective mechanisms and enhanced means for the removal of obstacles to, and provision of financial and other incentives for, scaling up of the development and technology to developing country Parties in order to promote access to affordable environmentally sound technologies (EST);

- **Revitalisation of an old discussion about technology transfer between scientifically/technologically proficient and lagging countries, but in a new, much more powerful context.**

- **Since Bali, intellectual property has featured in discussions on technology transfer with diverging views between developed and developing countries on the role of intellectual property rights in technology transfer.**

Input needed

Technology in future climate change abatement

- Enhanced action on technology development and transfer will play a key role
- IPR-related issues have been discussed in a theoretical manner
- The **process needs clarity on where IPRs are a barrier, where not**
  - If they are a barrier, **how can that barrier be overcome**?
  - **How can IPR-issues be handled** in the international climate change context?
- The **role of a Copenhagen agreement**?

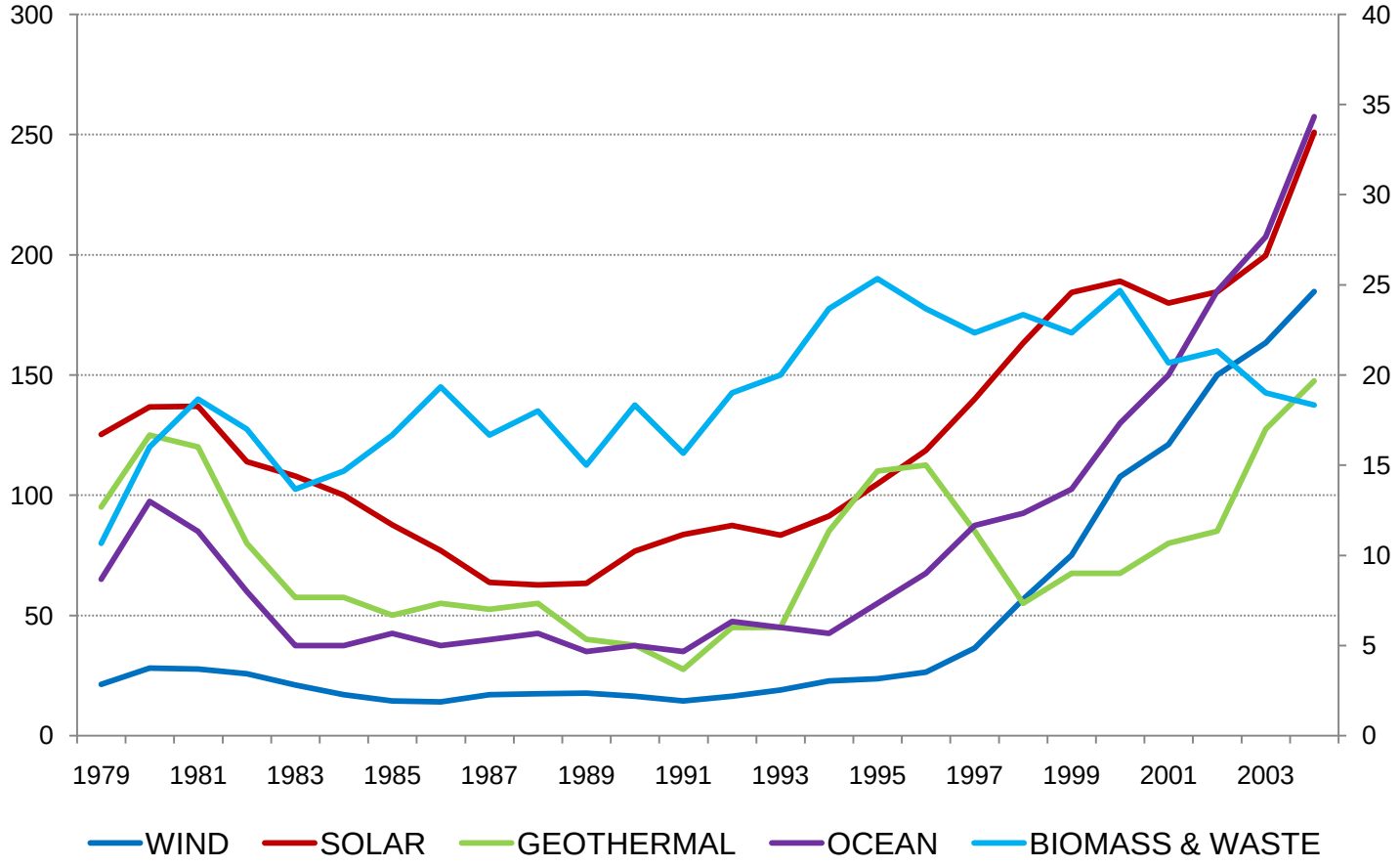
UNFCCC

Main Findings of the Paper by John Barton for ICTSD (*2007*)
IP and Access to Clean Energy Technologies in Developing Countries An Analysis of Solar Photovoltaic, Biofuel and Wind Technologies

- **Study focused on Brazil, China and India.**
- **There seem unlikely to be significant IP barriers to developing nation access to solar, biofuel and wind technologies.**
- **Each of the sectors is organized as an oligopoly at a key level of technology supply. Members of the oligopoly may have IP for which it would like to charge a high royalty, but it will be constrained by competition from the other members of the oligopoly, and, even more, by competition with alternate means of producing electricity or fuel.**
- **Further evidenced based research is needed. Situation and role of IP may become more significant issue with the evolution of market structure and the increase in patenting of clean technologies.**

Renewable Energy Technologies

(Number of EPO patent applications, 3-year moving average)



Note: Geothermal, Ocean, and Biomass/Waste are shown on the right axis.

Limitations of Available Empirical Analysis and Studies in relation to Patents and EST

- Partial coverage of technologies
- Partial coverage of countries
- Exclusive reliance on patent counts
- No specific expertise in patent classification and retrieval of patent information
- No analysis of licensing practices. The number of patents in the area might not be the key issue but rather the licensing practices and whether effective IPR-based markups and royalty rates are likely to be substantial or only a minor portion of overall costs.

ICTSD Initiative on Climate Technology and Trade

- The *Initiative on Climate Technology and Trade* is proposed as an informal mechanism to formulate a research agenda, identify gaps and priorities to be addressed and provide a conceptual framework, with a view to:
  - Examining mechanisms of transfer of technology relevant in the climate change context (including by considering approaches that have been successfully applied in other policy fora/contexts),
  - Identifying obstacles and potential points of intervention to promote the transfer of climate-related technology,
  - On the basis of the above, determine financing and other concrete measures that could be considered in the UNFCCC context.

- Through research and analysis, the *initiative* could generate solutions-focused and policy-oriented outcomes that can be fed into the work of the relevant bodies dealing with climate change technology within the UNFCCC and other climate change related processes.

- The first meeting of the Expert Group under the initiatiev was held in June 2008 and the second in June 2009.

UNEP-EPO-ICTSD
Study on Patents and EST (I)

- October 2008: UNEP and ICTSD jointly approach EPO, proposing collaboration.
- Memorandum of Understanding is signed between the three organisations (publicly announced on April 26, 2009);

- Unique partnership between :
  - UNEP, the UN Environmental Programme, Green Economy Initiative
  - EPO, a leading intergovernmental organization with expertise in patent search and examination which oversees the most widely used global patent database (PATSTAT), European Patent Forum in Ljubljana, May 2008
  - ICTSD, an NGO with a recognized expertise in advancing international policy processes in relation to trade, IPRs and sustainable development, Global Platform on Climate Change, Trade and Sustainable Energy

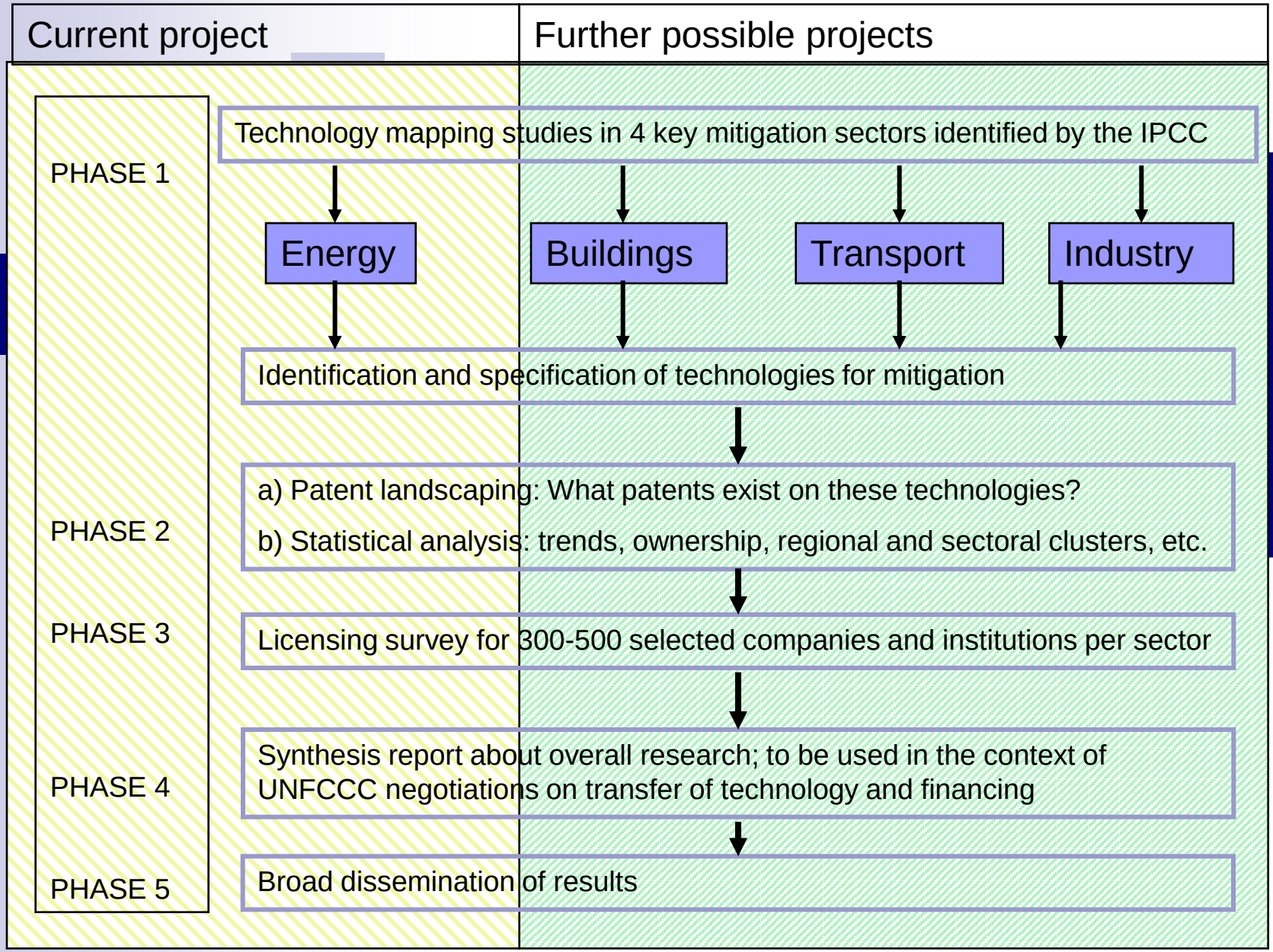
- The scale of the challenge, both in analytical and policy terms, is such that only a broadly based partnership can have success.

UNEP-EPO-ICTSD
Study on Patents and EST (II)

- **Partner organizations recognize that patents is only one element in the wider technology transfer equation.**

- **Will hopefully deliver the most in depth and comprehensive study on patents and EST including a survey and analysis of licensing practices.**

Research and Analytical Steps



PHASE 2 : Patent Landscaping and Statistical Analysis for Renewable Energies

- EPO's core competence in patent classification (internal experts scheme, going much deeper than IPC) is key asset.
- Key question: Which patents are related to renewable energies, according to the technology mapping ?
- A team of EPO examiners have tagged all related patent records worldwide.
- A first comparison with other studies (using IPC for retrieval) showed very significant discrepancies

Phase 3: Licensing survey

- **The second pillar of the project and most complex exercise (big administrative and coordination effort)**
- **How far to go asking for information which could be sometimes regarded as part of business strategy ?**
- **Consultation with industry and business stakeholders indispensable.**
- **Major milestone: consultation at UNEP in Geneva on May 8, 2009 with representatives of major industry/business associations.**
- **Currently, fine-tuning set of questions and accompanying text.**
- **Representatives of major industry/business associations offered concrete help for carrying out the survey in major countries.**

Industry/ business stakeholders involved in Licensing survey

- Licensors Executive Society International (LESI, including its regional branches)
- International Chamber of Commerce (ICC)
- World Business Council on Sustainable Development (WBCSD)
- Business Europe
- National Foreign Trade Council/ Global Innovation Forum (USA)
- US Chamber of Commerce
- Fraunhofer Gesellschaft (survey part in Germany)

Time line until COP15

- Statistical analysis and licensing survey to start and run in parallel from July to end of September.
- Interim reports to be drafted in October.
- Synthesis report, with input from several experts, to be drafted in November. It will be edited and jointly published by UNEP, EPO, ICTSD publication.
- Input into UNFCCC process, COP15.

Further perspectives

- **The MoU between UNEP, EPO and ICTSD runs for 2 years.**

- **Depending on the outcome of COP15, a continuation of this cooperation may be envisaged with the aim to extend the methodology to the other three main technology sectors (buildings, transportation, industrial processes) and carry out more focused, country-specific studies and licensing analysis.,.**

Meetings under the ICTSD Initiative 2008-09

- **Side event on Technology Transfer and IPRs, COP 14 Poznan, December 2008**
- **Three Regional Consultations on "Trade and Climate Change" in Latin America (Brazil), Africa (South Africa) and Asia (Thailand), April-May 2009**
- **Dialogue on "Trade and Climate Change: Development Aspects of Climate Change Policies of OECD Countries", 5 May 2009, Washington DC, USA**
- **Side event on "Innovation and Diffusion of Climate Technologies: What Role for WIPO?" organized in collaboration with Chatham House, 24 March 2009, Geneva, Switzerland**
- **Side event on "Climate Change, Transfer of Technology and IPRs: The Challenge of Evidence-based Policy", 27 March 2009 at the WIPO Standing Committee on Patents (SCP), Geneva, Switzerland**

Menu of options for the nexus
Transfer of Technology/IPRs

- **In relation to IPRs, and taking into consideration results of evidenced based analysis, possible responses :**
  - → **Business as usual approach: difficult to sustain in view of demand for rapid and wide scale diffusion of EST to developing countries**
  - → **Promoting the transfer of EST in the public domain**
  - → **Guidelines on Licensing of EST on fair and reasonable terms for developing countries**
  - → **Arrangements for greater use of alternative innovation models (prizes, patent pools, open innovation etc.) and collaborative R&D**
  - → **Building capacities on EST research and innovation in developing countries**
  - → **Declaration on IPRs and Access to Climate Change Technologies :**

    ***Use of TRIPS flexibilities (Which ones? exclusion from patentability, compulsory licensing, competition policy etc, *Article 31 (f)) problem? * where ? UNFCCC? WTO?)**

Thank you

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