

# Climate Change and the Debate around Green Technology Transfer and Patent Rules: History, Prospect and Unresolved Issues

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*Climate change is the greatest market failure the world has ever seen. ... The costs of stabilising the climate are significant but manageable; delay would be dangerous and much more costly. ... Action on climate change is required across all countries, and it need not cap the aspirations for growth of rich or poor countries. ... The development and deployment of a wide range of low-carbon technologies is essential in achieving the deep cuts in emissions that are needed. ... And there is some evidence that a more robust IPR [intellectual property rights] regime encourages such transfer. Stern Review<sup>1</sup>*

## Introduction

Today, as scientific literature continues to buttress existing evidence about “anthropogenic climate change”, highlighting the decisive role of human activity in the surge of carbon dioxide emissions, the broad diffusion and transition to environmentally sound technologies (ESTs) appears ever more likely to help the world break the climate stalemate.<sup>2</sup> By answering past human activity with equal ingenuity, it is possible to envisage the world moving towards a low carbon economy. The development and the implementation of ESTs are heavily promoted through many schemes throughout the developed world. However, for a truly global issue such as climate change, the solutions should be deployed all over the world, not only in the Global North (North).

The transfer of ESTs to the Global South (South) is a major issue discussed within the framework of various international conventions, such as the United Nations Framework Convention on Climate Change (UNFCCC)<sup>3</sup> and the Kyoto Protocol.<sup>4</sup> Discussions centre on how “technology-importing countries” could benefit from such transfers in a sustainable way. After an introduction on ESTs, we will see how the discourse on the transfer of ESTs gained momentum, before reviewing the exchanges that have recently agitated the delegates in Durban on the occasion of the Seventeenth Conference of the Parties (COP) in December 2011.

The promotion of ESTs calls for adequate incentive mechanisms. Whilst financial incentives such as state aid and tax benefits will undoubtedly play a major role, patents can also act as strong incentives for companies to invest in certain technologies by allowing them to recoup their investments. The positive

<sup>1</sup> N. Stern, *Stern Review on the Economics of Climate Change* (London: HM Treasury, 2006), available at [http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/sternreview\\_index.htm](http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/sternreview_index.htm) [Accessed March 25, 2012].

<sup>2</sup> UN Department of Economic and Social Affairs, “World Economic and Social Survey 2011: The Great Green Technological Transformation”, available at [http://www.un.org/en/development/desa/policy/wess/wess\\_current/2011wess.pdf](http://www.un.org/en/development/desa/policy/wess/wess_current/2011wess.pdf) [Accessed March 25, 2012].

<sup>3</sup> United Nations Framework Convention on Climate Change 1992 (UNFCCC), entered into force on March 21, 1994.

<sup>4</sup> Kyoto Protocol to the United Nations Framework Convention on Climate Change 1997 (Kyoto Protocol), entered into force on February 16, 2005.

view on patents, as an enhancer of green technologies, posits that the patent system works as a platform around which “green transactions” can be brokered and completed. Accordingly, mechanisms allowing investors in ESTs to benefit from the revenue generated by the exploitation and licensing of patents appears necessary for the markets surrounding those technologies to flourish.

NGOs and civil society groups active in the environmental policy-making, however, share a rather sceptic view on patents, if not an anti-patents rhetoric. This echoes the debate on pharmaceutical patents that led to the Doha Declaration on the TRIPS Agreement and Public Health (Doha Declaration),<sup>5</sup> which aimed primarily at providing access to essential medicines in developing countries. These pressure groups contend that the patent system is a one-way street leading directly to the coffers of large corporations from the developed world while adversely impeding the economic development of the South.

The patent system is thus currently under scrutiny from various actors. The legal debate crystallizes around the “flexible provisions” of the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement) that allow the Member States to somewhat adapt their patent rules to the state of their economy and to their national public policies. The most popular of these flexibilities is the “compulsory license” mechanism provided for by art.31 of the TRIPS Agreement. In the third part, we will review the existing flexibilities and assess whether an additional mechanism is needed to support the promotion of ESTs and their deployment in the South. We will then conclude about what can be expected from COP 18 in Qatar and beyond.

## *I. The definition, types and origins of ESTs*

### **The notion of EST.**

While the issue of technology transfer (TT) agitates the delegates within the international climate change fora, the simple fact that there exists, in parallel, no agreed definition of what falls within the central notion of “green technology” illustrates the lack of understanding surrounding the debate.

The most commonly used definition of ESTs is based on Agenda 21, which arose from the UN Conference on Environment and Development, otherwise known as the Earth Summit, held in 1992. Since then, no unanimous improvements have been made to further develop the outlines of this concept showing the malaise that prevails among the climate change negotiators.

### **Definition of ESTs**

Chapter 34 of Agenda 21 defines ESTs as technologies which:

- protect the environment;
- are less polluting;
- use all resources in a more sustainable manner;
- recycle more of their wastes and products; and
- handle residual wastes in a more acceptable manner than the technologies for which they are substitutes.

ESTs are not just individual technologies. They can also be defined as total systems that include know-how, procedures, goods and services, and equipment, as well as organisational and managerial procedures for promoting environmental sustainability.

<sup>5</sup> World Trade Organization, “Declaration on the TRIPS Agreement and Public Health”, WT/MIN(01)/DEC/2, November 20, 2001, available at [http://www.wto.org/english/thewto\\_e/minist\\_e/min01\\_e/mindecl\\_trips\\_e.htm](http://www.wto.org/english/thewto_e/minist_e/min01_e/mindecl_trips_e.htm) [Accessed March 25, 2012].

Based on these characteristics, the definition of ESTs:

- applies to the transition of all technologies in becoming more environmentally sound;
- captures the full life cycle flow of the material, energy and water in the production and consumption system;
- covers the full spectrum from basic technologies that are adjunct to the production and consumption system, to fully integrated technologies where the environmental technology is the production or consumption technology itself;
- includes closed system technologies (where the goal is zero waste and/or significant reductions in resource use), as well as environmental technologies that may result in emissions; and
- considers technology development within both the ecological and social context.<sup>6</sup>

### **Adaptation v mitigation technology.**

While it has been widely recognized that the climate change challenge called for technological breakthroughs, a distinction needs to be made between at least two types of technologies each relevant in different but complementary areas:<sup>7</sup>

- First, climate change mitigation technology (CCMT) refers to  

“technological change and substitution that reduce energy resource inputs and emissions per unit of output. Although several social, economic and technological policies would also lead to an emissions reduction, for climate change mitigation encompasses implementing policies to reduce greenhouse gas (GHG) emissions and to enhance sinks.”

These technologies cover a vast range of sectors: energy supply, transport, buildings, industry, agriculture, forestry, and waste management.<sup>8</sup>

- Secondly, adaptation technology concerns:  

“Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploit beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation”.

Again, these technologies are useful in many different sectors: agriculture, coastal zone, infrastructure, water resources and hydrology, tourism, finance, biodiversity and health. Moreover, in addition to “soft” technologies, such as crop rotation, “hard” technologies for adaptation include improved irrigation techniques to cope with drought, and new plant varieties which are resistant to drought or salt water.

### **Role of patents for mitigation and adaptation technologies.**

There is evidence showing that the role of patents for adaptation technologies is very different from the role they play for CCMTs. With regard to the former, it seems that the privileged area for their implementation is the Least Developed Countries (LDCs) (i.e. sub-Saharan Africa, Asia and certain small island states) where the impact of patents in general is not likely to be significant, as a patent system is not generally in force or widely used in these countries. On the contrary, there is a large demand for CCMTs in the regions that have had the benefit, at one point of their history, from the industrialization process (European Union, United States, Japan, China, Brazil, India) and where the patent system is viewed as the cornerstone of the recent knowledge-based economy. For that reason,

<sup>6</sup> Agenda 21, Ch.34 (“Transfer of Environmentally Sound Technology, Cooperation & Capacity-Building”), available at [http://www.un.org/esa/dsd/agenda21/res\\_agenda21\\_34.shtml](http://www.un.org/esa/dsd/agenda21/res_agenda21_34.shtml) [Accessed March 25, 2012].

<sup>7</sup> cf. the definitions given by the Intergovernmental Panel for Climate Change (IPCC), available at <http://www.ipcc.ch/pdf/glossary/ar4-wg3.pdf> [Accessed March 25, 2012].

<sup>8</sup> For a list of key mitigation technologies already available and projected to be commercially available before 2030, see <http://www.greenfacts.org/en/climate-change-ar4/figtableboxes/40.htm> [Accessed March 25, 2012].

it is not surprising that the scientific community, in the IP Debate, is focusing on the impact of patents on the access, deployment and transfer of CCMTs at the expense of adaptation technologies that must be discussed in another forum.<sup>9</sup> This assertion reflects the position taken by the European Patent Office (EPO) that recently launched a new classification scheme exclusively for CCMTs under the symbol YO2 aiming at hosting the many cross-sectoral green technologies in one single place.<sup>10</sup> This initiative originates from the joint study launched in 2009 by the United Nations Environment Programme (UNEP) with the EPO and the International Centre for Trade and Sustainable Development (ICTSD) on the role of patents in the transfer of clean energy technologies (CETs).<sup>11</sup> The study expressively stated that “for the purposes of this study, CETs are energy generation technologies which have the potential for reducing greenhouse gas emissions”, i.e. CCMTs.

### **Green-novation: No more the appanage of the North?**

While the European Union (followed by the United States and Japan<sup>12</sup>) has been, for the last three decades, a pioneer in the development and further patenting of green technologies,<sup>13</sup> there is a clear trend that the emerging countries, with China at the head, are rapidly catching up. In fact, it is apparent from many studies done in the sector that patent protection is absent from most of the low-income countries for these technologies.<sup>14</sup> By contrast, the patent protection of climate technologies is increasing exponentially in the emerging markets. In 2009, a study commissioned by the European Commission found that the growth rate of patent registration in emerging countries for the period 2004–2007, compared with 1998–2001, is five times higher than the worldwide growth rate for the same period.<sup>15</sup> Most importantly, while the share of domestic ownership of patents in these countries was close to zero in the late 1990s, the study shows that almost one-third of all patents registered in emerging market economies are presently owned by residents of these countries.<sup>16</sup> This means that local industries have, in theory, the capacity to substitute western technology for their own. In addition, the recent UNEP-EPO-ICTSD Joint Study concluded that

“the worldwide patenting activity is largely dominated by the OECD countries (80 percent of all patent applications)[, but] a number of emerging economies are showing specialization in individual sectors, providing further competition in the field and potentially changing the future of the CET patent landscape.... For instance, such an analysis reveals that India features within the top five countries for solar [photovoltaic], while Brazil and Mexico share the top two positions in hydro/marine. [Moreover], in terms of patent filing trends between countries (structure of

<sup>9</sup> In this regards, it is worth noting that the Cook Islands, in their “letter of non-association to the UNFCCC”, decided not to endorse the Copenhagen Accord, on the ground that “[p]ast experience with the Expert Group on Technology Transfer has shown that mitigation technologies have received far more attention [than adaptation technologies]”. Baskut Tuncak, “Leading the Way towards Carbon Reduction”, Centre for International Environmental Law (CIEL) Blog—“Intellectual Property and Sustainable Development”, available at <http://ipsd.typepad.com/ipsd/green-innovation/> [Accessed March 25, 2012].

<sup>10</sup> See EPO, “EPO Clean Energy”, available at <http://www.epo.org/news-issues/issues/classification/classification.html> [Accessed March 25, 2012].

<sup>11</sup> UNEP-EPO-ICTSD, “Patents and Clean Energy: Bridging the Gap between Evidence and Policy” (2010), p.8, available at [http://documents.epo.org/projects/babylon/eponet.nsf/0/cc5da4b168363477c12577ad00547289/\\$FILE/patents\\_clean\\_energy\\_study\\_en.pdf](http://documents.epo.org/projects/babylon/eponet.nsf/0/cc5da4b168363477c12577ad00547289/$FILE/patents_clean_energy_study_en.pdf) [Accessed March 25, 2012].

<sup>12</sup> cf. UNEP-EPO-ICTSD, “Patents and Clean Energy” (2010), p.31, fig.5.

<sup>13</sup> E.g. “European Strategic Energy Technology Plan” (SET Plan), available at [http://ec.europa.eu/energy/technology/set\\_plan/set\\_plan\\_en.htm](http://ec.europa.eu/energy/technology/set_plan/set_plan_en.htm) [Accessed March 25, 2012]; “EU 2020 Strategy”, available at [http://ec.europa.eu/europe2020/index\\_fr.htm](http://ec.europa.eu/europe2020/index_fr.htm) [Accessed March 25, 2012].

<sup>14</sup> John H. Barton, “Intellectual Property and Access to Clean Energy Technologies in Developing Countries: An Analysis of Solar Photovoltaic, Biofuel and Wind Technologies” (2007) ICTSD Trade and Sustainable Energy Series, Issue Paper No.2, available at [http://www.iprsonline.org/unctadictsd/docs/BARTON\\_DEC\\_2007.pdf](http://www.iprsonline.org/unctadictsd/docs/BARTON_DEC_2007.pdf) [Accessed March 25, 2012].

<sup>15</sup> Copenhagen Economics and the IPR Company, *Are IPRs a Barrier to the Transfer of Climate Change Technology?* (Copenhagen: 2009), study prepared for the European Commission (DG Trade), p.16, available at <http://www.copenhageneconomics.com/Publications/IPR.aspx> [Accessed March 25, 2012].

<sup>16</sup> “At the same time, it should be noted that this phenomenon is very much dominated by China: out of the 7400 climate change technology patents owned by residents of emerging market economies in 2008, 92% are owned in China by Chinese residents. None of the other emerging market economies has taken such a huge step forward in domestic ownership of IPR. It is somewhat surprising then to see China take the lead in the international debate on climate change technology transfers and advocate a more flexible IPR regime.” Copenhagen Economics and the IPR Company, *Are IPRs a Barrier to the Transfer of Climate Change Technology?* (2009), p.25.

patent families), unsurprisingly, the majority of activity is currently taking place in the patent offices of the top six patenting countries. However, China is the next most important filing destination for actors in the top six countries.”<sup>17</sup>

Besides, those countries also reinforced their IP system through strategic collaboration with the EPO, the U.S. Patent and Trademark Office (USPTO) and the Japanese Patent Office (JPO).<sup>18</sup> These partnerships recently took on new amplitude with the launch of the EPO new classification scheme (YO2) specifically designed to identify ESTs’ technical attributes within the “ESP@CENET” system.<sup>19</sup> Because of the “technocratic trust” that prevails between the trilateral offices (USPTO, JPO and EPO) and the rest of the IP offices throughout the world,<sup>20</sup> this new classification will have effect in all of them and, consequently, will accelerate the diffusion and development of ESTs in those countries.<sup>21</sup> As a matter of fact, the EPO rules of procedure and the “ESP@CENET” system serve as models for all other IP Offices which draw inspiration from and sometimes even make a full copy of because of their world-known quality. For all these reasons, to the emerging countries which advocate the weakening of “northern” IP systems, the developed countries may thus reply that the world has changed dramatically.<sup>22</sup>

## II. How TT became an important issue: From the Bali Plan of Action to the Copenhagen Conference

### TT and development.

The North-South debate on the transfer of technology finds its roots in the call for development that arose from the newly independent states in the aftermath of the decolonisation process. It appeared to them that social and economic progress should work hand in hand with technological development. In the 1970s, harnessing this new awareness, developing countries pursued a series of initiatives aiming at rebalancing the gap that segregated the old colonies from their western counterpart—referred to as the “Old Development Agenda” by Peter Yu.<sup>23</sup> Among those initiatives, the international community focused on the establishment in 1977 of an “International Code of Conduct on the Transfer of Technology”<sup>24</sup> under the auspices of the United Nations Conference on Trade and Development (UNCTAD), which was in line with the *Declaration for the Establishment of a New International Economic Order*<sup>25</sup> adopted by the United Nations General Assembly in 1974. This Code was intended

<sup>17</sup> UNEP-EPO-ICTSD, “Patents and Clean Energy” (2010), p.64.

<sup>18</sup> In 2007, the European Commission and the Government of People’s Republic of China launched the EU-China Project on the Protection of Intellectual Property Rights (IPR2) aiming at improving the effectiveness of intellectual property rights enforcement in China, available at [http://www.ipr2.org/index.php?option=com\\_content&view=article&id=44&Itemid=1](http://www.ipr2.org/index.php?option=com_content&view=article&id=44&Itemid=1) [Accessed March 25, 2012].

<sup>19</sup> See EPO, “EPO Clean Energy”, available at <http://www.epo.org/news-issues/issues/classification/classification.html> [Accessed March 25, 2012]. See also the “IPC Green Inventory” scheme that is launched in September 2010 by WIPO and that is “hyperlinked to WIPO’s PATENTSCOPE service to automatically search and show all green international applications under the PCT”. WIPO, “WIPO Launches Tool to Facilitate Green Tech Patent Searches”, September 16, 2010, available at [http://www.wipo.int/pressroom/en/articles/2010/article\\_0031.html](http://www.wipo.int/pressroom/en/articles/2010/article_0031.html) [Accessed March 25, 2012].

<sup>20</sup> More specifically the so-called “Five IP Offices” regrouping the EPO, the Japanese Patent Office, the Korean Intellectual Property Office, the State Intellectual Property Office of the People’s Republic of China, and the United States Patent and Trademark Office: see <http://www.fiveipoffices.org> [Accessed March 25, 2012].

<sup>21</sup> Peter Drahos, *The Global Governance of Knowledge: Patent Offices and Their Clients* (Cambridge: Cambridge University Press, 2010).

<sup>22</sup> Rasmus Lema and Adrian Lema, “Whither Technology Transfer? The Rise of China and India in Green Technology Sectors” in *Innovation and Development, Special Issue on Sustainability-Oriented Innovation Systems in China and India* (forthcoming) (June 2011 draft version, cited with the express consent of the authors).

<sup>23</sup> Peter K. Yu, “A Tale of Two Development Agendas” (2009) 35 Ohio N.U. L. Rev. 465.

<sup>24</sup> “International Code of Conduct on the Transfer of Technology”, December 17, 1985, A/RES/40/184, available at <http://www.un.org/documents/ga/res/40/a40r184.htm> [Accessed March 25, 2012].

<sup>25</sup> “Declaration on the Establishment of a New International Economic Order”, May 1, 1974, A/RES/S-6/3201, available at <http://www.un-documents.net/s6r3201.htm>. For a retrospective analysis of the effects of the Declaration, see UNCTAD, “Transfer of Technology” [2001] UNCTAD Series on International Investments Agreements, IIA Issues Paper Series, available at <http://www.unctad.org/en/docs/psiteitd28.en.pdf> [Accessed March 25, 2012].

to apply to all international transactions involving TT in order to eliminate the numerous clauses in “transfer of technology contracts” (as well as other restrictive foreign investment practices), which were harmful to the economic development of developing countries (such as provisions on grant-back, exclusive dealing and price-fixing). Unfortunately, mostly because of the economic slump of the late 1970s and early 1980s, the support for the Code progressively disappeared, even within the developing country community, and the negotiation stopped in 1985.<sup>26</sup>

This episode reminds us that the transfer of technology, while being widely promoted in the current climate talk, has already suffered in the past from a lack of understanding and goodwill on the part of the world leaders. A more constructive approach is needed for the transfer of ESTs. But the task is complex, as TT is a very comprehensive process. According to Rubens Ricupero and Carlos Correa:

“There are two relevant categories of knowledge that are essential for economic progress and competitiveness. The first consists of knowledge embodied in machines and equipment which makes it possible to control sophisticated processes for producing goods and services and marketing them at a profit. The other category, to some extent still elusive, consists of tacit knowledge, that is, knowledge embodied in the organizational routines and collective expertise or skills of specific production, management, research and development and marketing. It is the first type of knowledge that people generally have in mind when discussing today’s knowledge-intensive economy and the transfer and diffusion of technology. However, as knowledge becomes a more decisive factor, and a more critical commodity, its acquisition and diffusion will require that the two aspects of knowledge be considered as an integral part of knowledge transfer. This makes the process of technology transfer more than ever a continuous and uninterrupted learning process.”<sup>27</sup>

### **TT is a treaty commitment.**

While the overall issue of TT, as mentioned above, far outreaches the climate talk and has been the subject of endless discussion in the past, the particularities of the “green challenge” calls for a differentiated treatment of the transfer of ESTs. Indeed, the global commitments of the States (Annex I States)<sup>28</sup> to reduce their GHG emissions are enshrined in various multilateral environmental agreements such as the UNFCCC<sup>29</sup> (not legally-binding) and the Kyoto Protocol<sup>30</sup> (legally-binding). Both instruments emphasize the crucial role of technology-exporter countries in the mitigation of climate change. All in all, TT fell out of the humanitarian discussions to become a real treaty commitment.

<sup>26</sup> “The activist developing countries’ legislation, which had inspired numerous provisions in the draft code, was called into question by the countries’ own lawmakers and subsequently amended to reflect new economic realities. These trends, which became evident in the early eighties, led most developing countries to lose interest in the code effort.” Susan K. Sell, *Power and Ideas: North-South Politics of Intellectual Property and Antitrust* (Albany: State University of New York Press, 1998).

<sup>27</sup> Rubens Ricupero and Carlos Correa, “Preface” in Surendra J. Patel, Pedro Roffé and Abdulqawi A. Yusef (eds), *International Technology Transfer: The Origin and Aftermath of the United Nations Negotiations on a Draft Code of Conduct* (The Hague: Kluwer Law International, 2001). This broad definition of “technology transfer” draws inspiration from the IPCC vision on TT unanimously recognized by the international community: Technology Transfer is “a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders such as governments, private sector entities, financial institutions, non-governmental organizations and research/education institutions”. IPCC *Special Report on Methodological and Technological Issues on Technology Transfer* (Geneva: 2000), available at <http://www.ipcc.ch/pdf/special-reports/spm/srtp-en.pdf> [Accessed March 25, 2012].

<sup>28</sup> The Convention divides countries into three main groups according to differing commitments: Annex I, Annex II and Non-Annex I. Annex I Parties include the industrialized countries that were members of the OECD (Organisation for Economic Co-operation and Development) in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European States. More information is available at [http://unfccc.int/parties\\_and\\_observers/items/2704.php](http://unfccc.int/parties_and_observers/items/2704.php) [Accessed March 25, 2012].

<sup>29</sup> UNFCCC arts 4.1(c), 4.3, 4.5, 4.7, 4.8 and 4.9.

<sup>30</sup> Kyoto Protocol art.10.

In 2007, 15 years after the ratification of the Convention and one year after the entry into force of the Kyoto Protocol, the Expert Group on Technology Transfer (EGTT)<sup>31</sup> wrote a report regarding the implementation of the Convention by the Member States in which it concluded that “discussions relating to technology transfer in the UNFCCC should evolve to a more practical, result-oriented actions in specific sectors and programs”.<sup>32</sup> In other words, the expected results, announced by the international community, with regard to the transfer of ESTs, were far from being attained, and the EGTT, on this occasion, called the group of developed countries to reaffirm their commitments through practical and efficient initiatives.<sup>33</sup>

### **The Bali Plan of Action and Beyond: The call for enhanced action on TT.**

As a direct consequence of the 2007 report of the EGTT, the Member States and parties to the UNFCCC gathered in Bali for COP 13 under the Convention and, determined to take their responsibilities, established the renowned “Bali Plan of Action” (BPA). By doing so, they decided to

“launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision at [COP 15]”.<sup>34</sup>

The BPA put TT in the spotlight by insisting on the need to

“enhance action on technology development and transfer to support action on mitigation and adaptation” for the benefit of the developing countries. Paragraph 1(b)(ii) emphasized the importance that TT represented in the overall action on mitigation of climate change and stated that such action needed to be “Measurable, Reportable and Verifiable”.

While para.1(d) called for the Member States to “further complement this by pushing for more effective and enhanced modalities for technology transfer to be agreed upon and implemented as part of the negotiated outcomes of the Bali Action Plan”.<sup>35</sup>

The BPA raised the awareness of the international community about the need to create clear mechanisms facilitating the flow of green technologies needed in the South. Having this in mind, the Copenhagen Accord in 2009 provided for the establishment of a “Technology Mechanism” (TM) aimed at addressing all aspects of cooperation on technology research, development, diffusion and transfer in accordance with arts 4.1(c), 4.3, 4.5 and other relevant articles of the UNFCCC. Further, the Accord stated that the TM would consist of two components: the “Technology Executive Committee” (TEC) and the “Climate Technology Centre and Network” (CTC&N). The outline and specific functions of the TM were further developed in the text negotiated under the Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA) in Copenhagen and during subsequent

<sup>31</sup> The EGTT was established at COP 7, with the objective of enhancing the implementation of art.4, para.5 of the Convention, including by analysing and identifying ways to facilitate and advance technology transfer activities: see <http://unfccc.int/tclear/jsp/EGTT.jsp> [Accessed March 25, 2012].

<sup>32</sup> UNFCCC, *Expert Group on Technology Transfer: Five Years of Work* (Bonn: 2007), p.12, available at [http://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/egtt\\_en\\_070523.pdf](http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/egtt_en_070523.pdf) [Accessed March 25, 2012].

<sup>33</sup> This assertion must be put into perspective as quite some work has been done by the Global Environmental Facility (GEF) instituted by the UNFCCC (art.11). The GEF “over its 17-years of history, has extensive experience in the transfer of climate change mitigation and adaptation technologies. A total of around 2.5 billion dollars has been allocated to support climate change projects in over 100 countries. These catalytic projects have addressed more than 30 technologies and leveraged 15 billion dollars in co-financing.” Global Environment Facility, *Transfer of Environmentally Sound Technologies: the GEF Experience* (Washington: 2008), available at [http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF\\_TTbrochure\\_final-lores.pdf](http://www.thegef.org/gef/sites/thegef.org/files/publication/GEF_TTbrochure_final-lores.pdf) [Accessed March 25, 2012].

<sup>34</sup> UNFCCC, “Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007”, March 14, 2008, FCCC/CP/2007/6/Add.1, available at <http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf> [Accessed March 25, 2012].

<sup>35</sup> The South Centre, “Accelerating Climate-Relevant Technology Innovation and Transfer to Developing Countries: Using TRIPS Flexibilities under the UNFCCC”, August 2009, SC/IAKP/AN/ENV/1, SC/GGDP/AN/ENV/8, available at [http://www.southcentre.org/index.php?option=com\\_docman&task=doc\\_download&gid=1692&lang=en](http://www.southcentre.org/index.php?option=com_docman&task=doc_download&gid=1692&lang=en) [Accessed March 25, 2012].

sessions throughout 2010. In Cancùn, the parties agreed on a decision<sup>36</sup> consisting of operational provisions (i.e. the establishment of the TM, including the TEC mandate, composition and operationalisation) and process provisions (i.e. a work program for 2011 on unresolved issues). Paragraph 128 of the decision mandated the following COP in Durban, South Africa (held in 2011) to resolve the following: (a) the relationship between the TEC and the CTC&N and their reporting lines; (b) the governance structure and terms of reference for the CTC&N and how the CTC will relate to the Network, drawing upon the results of a workshop authorized by the Cancùn decision; (c) the procedure for calls for proposals and the criteria to be used to evaluate and select the host of the CTC&N; (d) the potential links between the TM and the financial mechanism of the Convention; and (e) consideration of additional functions for the TEC and CTC&N. The scene is set but the effective outcome of the Durban conference on TT issues remains uncertain and will need further work in the future.<sup>37</sup>

### **IP in a post-Kyoto perspective: The real challenge.**

There exist three major factors that need to be tackled when dealing with IP in the context of climate change.

First, IP would not be on the agenda if the developed countries had not failed to fulfil their TT commitments under the UNFCCC and the Kyoto Protocol. Indeed, while developing countries were supposed to overcome (to some extent) the technological divide that separates them from the developed world before the end of the Kyoto Protocol in 2012, much still needs to be done. According to developed countries, patents act as a catalyst for the transfer of technologies and must be promoted internationally to facilitate trade among states. In their view, the TRIPS Agreement is a tool for development. In practice, though, developing countries fail to observe any improvement in the transfer of technologies following the implementation of the TRIPS Agreement and argue in favour of the weakening of the IP system worldwide.

Secondly, the transition period for LDCs under art.66.1 of the TRIPS Agreement is about to expire in 2013. This will bring the obligation for LDCs to come on board and to implement the controversial TRIPS provisions in their national legal order although they are often far from being able to cope with those requirements and even further away from deriving any benefit from those rules.

Last but not least, while the last decade witnessed the emergence of new economical powers in the South (China, India and Brazil ahead), the new climate deal that might be ratified by the parties in the coming years (in a post-Kyoto perspective) will, most certainly, include new stringent GHG commitments for Non-Annex I countries. The prospect of being subject to those GHG obligations lead many countries to request that they should at least have access to the most efficient technologies available for doing so. This eventually has prompted a call by the same countries for an in-depth reform of the TRIPS Agreement.

<sup>36</sup> Decision 1/CP.16, "The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (Section IV.B.)", March 15, 2011, FCCC/CP/2010/7/Add.1, available at <http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2> [Accessed March 25, 2012].

<sup>37</sup> Climate Justice Now, "Movement of Technology Mechanism in Durban Outcome", December 23, 2011, available at <http://www.climate-justice-now.org/movement-of-technology-mechanism-in-durban-outcome/> [Accessed March 25, 2012].

### The progressive IP awareness: From Bali to Copenhagen.

The appearance of IP-related issues within the environmental discussions is relatively recent. Until now, there existed no specific references to IP in the various multilateral environmental agreements and, as a result, no clear consensus on how to deal with this matter in the environmental community.<sup>38</sup> An OECD study conducted by Keith Maskus in 2010 corroborates this finding by stating that

“to date there is little systematic evidence that patents and other IPRs restrict access to ESTs, which largely exist in sectors based on mature technologies in which there are numerous substitutes among global competitors. This situation may change as new technologies based on biotechnologies and synthetic fuels, which are likely to be more dependent on patent protection, become more prominent.<sup>39</sup> At present, however, there is little evidence to support significant limitations on the issuance and use of IPRs in this area. In particular, it is unlikely that an international agreement on a compulsory licensing regime could achieve significant ITT [international technology transfer] benefits, while it may raise considerable costs”.<sup>40</sup>

In 2007, during COP 13 in Bali, a group of countries (China, Indonesia, Cuba, Tanzania and India) requested the parties to put this question on the Agenda in order to assess and further legislate on the role of IP in the overall access, deployment and transfer of ESTs.<sup>41</sup> This claim was supported, at that time, by the European Parliament that passed a French MP’s motion calling for

“a study on possible amendments to the WTO Agreement on Trade Related Aspects of Intellectual Property Rights in order to allow for the compulsory licensing of environmentally necessary technologies”.<sup>42</sup>

This sudden expression of interest gave rise to a series of negotiations within the AWG-LCA, in the hope of integrating an IP Compromise in the Climate Deal.<sup>43</sup> The Group of 77, supported by China, prompted the developed countries to revise the flexible provisions of the TRIPS Agreement on the occasion of the UNFCCC Climate Talks. As a result of this “snowball effect”, Ch.IV of the AWG-LCA negotiating text on “Enhanced Action on Development and Transfer of Technology” was remodelled countless times with the aim of proposing a balanced approach to the delegates for approbation. In Copenhagen, representatives of developing countries took language from the Doha Declaration and made two proposals on this basis: first, “any international agreement on intellectual property [IP] shall not be implemented in a manner that limit or prevent any party from taking any measure to address climate adaptation or mitigation”; secondly, “developing countries have the right to make use of the full flexibilities contained in the TRIPS Agreement, including compulsory licenses”.<sup>44</sup>

<sup>38</sup> The first reference to IP in a multilateral environmental agreement can be found in Ch.34 of Agenda 21 on “Transfer of Environmentally Sound Technology, Cooperation and Capacity-building”.

<sup>39</sup> On this matter, see Jerome Reichman, Arti K. Rai, Richard G. Newell and Jonathan B. Wiener, “Intellectual Property and Alternatives: Strategies for Green Innovation” (2008) Chatham House, Energy, Environment and Development Programme (EEDG), Paper No.08/03, available at [http://www.chathamhouse.org/sites/default/files/public/Research/Energy%2C%20Environment%20and%20Development/1208eedp\\_duke.pdf](http://www.chathamhouse.org/sites/default/files/public/Research/Energy%2C%20Environment%20and%20Development/1208eedp_duke.pdf) [Accessed March 25, 2012].

<sup>40</sup> Keith Maskus, “Differentiated Intellectual Property Regimes for Environmental and Climate Technologies” (2010) OECD, Environment Working Papers No.17, available at <http://dx.doi.org/10.1787/5kmfwjvc83vk-en> [Accessed March 25, 2012].

<sup>41</sup> Sangeeta Shashikant and Martin Khor, “Intellectual Property and Technology Transfer Issues in the Context of Climate Change” (2010) Third World Network, Intellectual Property Rights Series No.14, p.14, available at <http://www.twinside.org.sg/title2/IPR/pdf/ipr14.pdf> [Accessed March 25, 2012].

<sup>42</sup> “European Parliament Resolution on Trade and Climate Change”, November 29, 2007, 2007/2003 (INI), available at <http://www.europarl.europa.eu/sides/getDoc.do?Type=TA&Reference=P6-TA-2007-0576&language=EN> [Accessed March 25, 2012].

<sup>43</sup> In its seventh session, in Barcelona, the AWG-LCA integrated for the first time a sub-section on IP Rights (albeit in brackets) in its negotiated text. From this time being, the IP debate has never left the negotiation table until the recent development in Cancun. See ss.33-36 of the AWG-LCA negotiating text.

<sup>44</sup> Jayashree Watal, “Trade, Technology and Climate Change”, presentation at the Side Event of the Conference of Copenhagen, Faculty of Law, University of Copenhagen, December 16, 2009, available at [http://jura.ku.dk/english/webcast\\_wto/](http://jura.ku.dk/english/webcast_wto/) [Accessed March 25, 2012].

On the other side, developed countries acknowledged the inefficiencies of the current technology framework and stressed the need for the engagement of the private sector. With regard to IPR, the United States recalled that IPR is “an essential component” in the market of innovation, including green innovation. For that reason, it is important to be clear on IPR costs. In their view, the IPR costs in the energy sector are marginal.<sup>45</sup> On this matter, a 2006 UNFCCC report on the priority needs and economic barriers to TT for non-Annex I respondents found that IPR is a factor of minimal significance. Other factors, such as a lack of financial resources, high investment costs, subsidies and tariffs were considered greater barriers to accessing technologies.<sup>46</sup> Moreover, empirical studies showed that competition existed in the market for green technologies and that basic approaches to solving the specific technological problems in ESTs have long been off-patent.<sup>47</sup> On that basis, the United States and the other major developed countries (the European Union and Japan) advocated for the maintenance of a “status quo” with regard to IP in the climate negotiations. Accordingly, due to the continuous misunderstanding on the role of IP in the transfer of green technology (barrier or incentive?) and the generalized lack of goodwill from all the governments, the delegates left with this issue pending, hoping for a favourable outcome the following year for COP 16 in Cancun.

#### IP chapter in the AWG-LCA negotiating text<sup>48</sup>

Any international agreement on intellectual property shall not be interpreted or implemented in a manner that limits or prevents any Party from taking any measures to address adaptation or mitigation of climate change, in particular the development and enhancement of endogenous capacities and technologies of developing countries and transfer of, and access to, environmentally sound technologies and know-how;

Specific and urgent measures shall be taken and mechanisms developed to remove barriers to the development and transfer of technologies arising from intellectual property rights protection, in particular:

- (a) Creation of a Global Technology Intellectual Property Rights Pool for Climate Change that promotes and ensures access to intellectual property protected technologies and the associated know-how to developing countries on non-exclusive royalty-free terms;
- (b) Take steps to ensure sharing of publicly funded technologies and related know-how, including by making the technologies and know-how available in the public domain in a manner that promotes transfer of and/or access to environmentally sound technology and know-how to developing countries on royalty-free terms;

Parties shall take all necessary steps in all relevant forums to exclude from Intellectual Property Rights protection, and revoke any such existing intellectual property right protection in developing countries and least developed countries on environmentally sound technologies to adapt to and mitigate climate change, including those developed through funding by governments or international agencies and those involving use of genetic resources that are used for adaptation and mitigation of climate change;

Developing countries have the right to make use of the full flexibilities contained in the Trade Related Aspects of Intellectual Property Rights agreement, including compulsory licensing;

The Technology Executive Committee shall recommend to the Conference of the Parties international actions to support the removal of barriers to technology development and transfer, including those arising from intellectual property rights.

<sup>45</sup> The lack of infrastructure is often seen as the main challenge to applying ESTs in developing countries. “Many developing countries simply do not have some of the infrastructure requirements in place to apply promising new technologies. Importation, fabrication and assembly may be quite difficult, for example. Therefore, less-developed countries may tend to implement clean technology in whatever form is readily available—the existence of a patent or a license are likely irrelevant with respect to ultimate value.” Mark V. Muller and Annemarie Meike, “Patents and Licensing as Metrics of Technology Transfer: An Example from Clean Technology”, *Les Nouvelles* (Licensing Executives Society International), December 2011, pp.319-322.

<sup>46</sup> UNEP-EPO-ICTSD, “Patents and Clean Energy” (2010), p.20.

<sup>47</sup> Barton, “Intellectual Property and Access to Clean Energy Technologies in Developing Countries” (2007) ICTSD Trade and Sustainable Energy Series, Issue Paper No.2.

<sup>48</sup> AWG-LCA negotiating text, twelfth session, Tianjin, October 4-9, 2010, FCCC/AWGLCA/2010/14, available at <http://unfccc.int/resource/docs/2010/awglca12/eng/14.pdf> [Accessed March 25, 2012].

### IP kicked out of the climate deal in Cancun.

In the run-up to COP 16, and in reaction to the agitation around IP in Copenhagen, both the United States and the European Union made it clear that they would not agree on any UNFCCC decision that would interpret or weaken the international IPR regime; it is a red line for them.<sup>49</sup> In their view, IPR is not a barrier to TT, but on the contrary a pre-requisite for innovation. This vision goes in conjunction with the concept of “green growth” that is abundantly used in the developed countries and that induces the protection of green jobs while promoting the creation and diffusion of environmentally-sound inventions.<sup>50</sup> In this vein, three US Congressional bills expressively prevented the US administration to relax IPR rules or enforcement in the global climate talks, in line with the US Chamber of Commerce policy.<sup>51</sup> The latter, in a letter to the President of the European Commission, M. José Manuel Barroso, urged the European Union to follow its path and to join their forces in order to oust the G77 proposal that was on the table.<sup>52</sup> Additionally, the unconditional support of the developed countries to the patent system coupled with their commitment to dramatically reduce their emissions of GHG gave birth to a so-called “accelerated procedure” for green inventions in various parts of the world, with the United States and the United Kingdom leading.<sup>53</sup> The fast tracking of green invention reflects the prevailing ideology in the developed countries: the patent system, when appropriately applied, is an inescapable tool to promote, develop and transfer green technologies throughout the world.

### *III. Are the TRIPS flexibilities sufficient or is there a need for special rules in the context of ESTs?*

Article 27 of the TRIPS Agreement states “patents shall be available for any inventions ... in all fields of technology”, thus including the field of green technologies. While being neutral at first sight, some observers from the South have argued that art.27 unjustifiably impedes the access, deployment and transfer of clean technology contrary to the objective of “widest possible cooperation” required by the UNFCCC

<sup>49</sup>“Joint Resolution of BUSINESS EUROPE, IIPPF [International Intellectual Property Protection Forum, Japan] and the Global Intellectual Property Center [US] on Climate Change, Technology Transfer and Intellectual Property Rights”, September 28, 2009, available at <http://www.thecied.org/files/2010/10/FinalJointGreenTechnologiesClimateChangeStatementSept2809.pdf> [Accessed March 25, 2012].

<sup>50</sup> Copenhagen Economics, Clean Technology and European Jobs (Copenhagen: 2009), study prepared for the Coalition for Innovation, Employment and Development, available at <http://www.thecied.org/files/2010/10/CleanTechandEuroJobsFullReportFINAL1.pdf> [Accessed March 25, 2012]. See also Garten Rotkopf, *Intellectual Property Protection and Green Growth: Analysis and Implications for Climate Negotiations* (Washington: 2009), report for the Global Intellectual Property Center, available at [http://www.thecacp.org/sites/default/files/reports/documents/gartenrothkopf\\_ipr\\_greengrowth\\_0.pdf](http://www.thecacp.org/sites/default/files/reports/documents/gartenrothkopf_ipr_greengrowth_0.pdf).

<sup>51</sup>“Of concern are three laws: The American Clean Energy and Security Act 1978 (amended 2009), the Foreign Operations and Related Programs Appropriations Act 2010, and the Foreign Relations Authorizations Act for fiscal year 2010 and 2011, recently approved by the House of Representatives and pending in the Senate.” Sangeeta Shashikant, “Climate-Technology Protectionism and IPRs: Three US Congress Bills Prevent the US Administration from Agreeing to relax IPR Rules or Enforcement in the Global Climate Deal, Thus Posing Barriers to Technology Transfer” (2009) 40 South Bulletin 10, available at [http://www.southcentre.org/index.php?option=com\\_content&task=view&id=1086&Itemid=279](http://www.southcentre.org/index.php?option=com_content&task=view&id=1086&Itemid=279) [Accessed March 25, 2012].

<sup>52</sup>“Clean technology, moreover is key to European economic recovery, growth and jobs. Indeed, in your recently announced ‘Political guidelines for the next Commission’ you argue that ‘first-mover advantages can be gained by exploiting the potential of EU environmentally-friendly industries, services and technology through fostering their uptake by enterprises, especially [small and medium enterprises], and designing the appropriate regulatory environment.’ This can only occur if the incentives to innovate in this field are fostered and if IP rights are effectively protected.” American Chamber of Commerce to the European Union (AmCham EU), “Position Letter on Protection of IPR in Climate Change-Related Technologies”, September 29, 2009, available at [http://www.amchameu.eu/Documents/DMXHome/tabid/165/Default.aspx?Command=Core\\_Download&EntryId=4467](http://www.amchameu.eu/Documents/DMXHome/tabid/165/Default.aspx?Command=Core_Download&EntryId=4467) [Accessed March 25, 2012].

<sup>53</sup> These procedures include the “Accelerated Examination” in the United States (<http://www.uspto.gov/patents/process/file/accelerated/index.jsp>) and the “Green Channel” in the United Kingdom (<http://www.ipo.gov.uk/p-pn-green.htm>). Similar initiatives have been launched in Japan ([http://www.jpo.go.jp/torikumi/t\\_torikumi/souki/greensouki.htm](http://www.jpo.go.jp/torikumi/t_torikumi/souki/greensouki.htm)), South Korea ([http://hanyanglaw.com/eng/news/newsletter\\_preview.asp?curPage=1&ca=116](http://hanyanglaw.com/eng/news/newsletter_preview.asp?curPage=1&ca=116)), Australia ([http://www.ipaustralia.gov.au/patents/process\\_expedited.shtml](http://www.ipaustralia.gov.au/patents/process_expedited.shtml)), Israel ([http://www.israel-patents.co.il/index.php?page\\_id=272](http://www.israel-patents.co.il/index.php?page_id=272)) and Canada (<http://www.cipo.ic.gc.ca/eic/site/cipointernet-internetopic.nsf/eng/vr02462.html>) [Accessed March 25, 2012].

in its Preamble.<sup>54</sup> They claim that IP is a barrier that must be overcome by relinquishing the rights of the IP holder in the public domain. The positive or negative effect of the TRIPS framework rules is thus under discussion.

### TRIPS Agreement v TT.

The TRIPS Agreement, in its attempt to set a minimum standard of IP protection, took care to not focus excessively on the protection and enforcement of IPR, but tried to maintain an eye on the promotion of other public policy objectives, such as the transfer of technology. This approach was indeed necessary in order to avoid sub-optimal situations where the scope or the level of protection of IP is such that it may stifle innovation or make access to knowledge more difficult or costly. The so-called “balancing feature” of the TRIPS Agreement stems principally from arts 7 and 8(2), both of which appreciate the protection of IP in the light of the TT requirement.<sup>55</sup> Furthermore, art.66.2 imposes explicit obligations on the developed nations aiming at facilitating the transfer of technology to LDCs Members via a scheme of incentives directed to their national industry “in order to enable them to create a sound and viable technological base”. In 2003, following the repeated criticisms made by the LDCs on the misuse or insufficient use of art.66.2 by the developed countries,<sup>56</sup> the TRIPS Council took a Decision on the Implementation of Article 66.2 of the TRIPS Agreement.<sup>57</sup> This document specifically required developed country members to submit

“full reports on activities undertaken to meet the obligations [of Article 66.2] every three years, beginning in late 2003, with annual updates to be provided in intervening years”.<sup>58</sup>

Unsurprisingly, while very persuasive in theory, some observers have stressed the considerable gap that exists between the intentions expressed by the parties and the resulting actions.<sup>59</sup> Last but not least, the “exhaustion principle” set forth in art.6 of the TRIPS Agreement may aid or hinder the transfer of technology depending on the model the Members may adopt. The “universal exhaustion scheme” nurtures the public domain on a global scale and is actively promoted by the developing countries. Whereas the “territorial exhaustion regime” extensively limits the scope of this principle and is vigorously defended by international corporations, and thus developed countries, they fear the

<sup>54</sup> The preamble of the UNFCCC notes: “[T]he global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions.”

<sup>55</sup> Article 7 of the TRIPS Agreement states that the objective of the protection and enforcement of IP should be to contribute “to the promotion of technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare”. Article 8 also recognizes that measures “may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which ... adversely affect the international transfer of technology”.

<sup>56</sup> “Many developing countries have stressed the difficulties that they have faced in putting into practice the massive legislative changes required by the TRIPS Agreement, and the little support received from developed countries. In this context, the issue of the implementation of Article 66.2 to the benefit of LDCs has been raised by Egypt (WT/GC/W/109), India (WT/GC/W/147) and the African Group, which noted that no concrete steps have been demonstrated by developed countries with regard to the fulfilment of their obligations under that article (WT/GC/W/302).” Carlos Correa, “Review of the TRIPS Agreement: Fostering the Transfer of Technology to Developing Countries” (1999) 2(6) *Journal of World Intellectual Property* 939.

<sup>57</sup> See Council for Trade-Related Aspects of Intellectual Property Rights, “Implementation of Article 66.2 of the TRIPS Agreement—Decision of the Council for TRIPS of February 19, 2003”, IP/C/28, available at [http://www.wto.org/english/tratop\\_e/trips\\_e/techtransfer\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/techtransfer_e.htm) [Accessed March 25, 2012].

<sup>58</sup> Suerie Moon, “Meaningful Technology Transfer to LDCs: A Proposal for a Monitoring Mechanism for TRIPS Article 66.2” (2011) CTSD Programme on Innovation, Technology, and Intellectual Property, Policy Brief No.9, p.2, available at <http://ictsd.org/downloads/2011/05/technology-transfer-to-the-lDCs.pdf> [Accessed March 25, 2012].

<sup>59</sup> “The country reports do describe a range of programmes that certainly may benefit LDCs. However, they do not provide sufficiently detailed data to determine whether article 66.2 led to any additional incentives beyond business as usual foreign aid”. See Suerie Moon, “Does TRIPS Art. 66.2 Encourage Technology Transfer to LDCs? An Analysis of Country Submissions to the TRIPS Council (1999–2007)” (2008) UNCTAD-ICTSD Project on IPRs and Sustainable Development, Policy Brief No.2, p.8, available at [http://www.unctad.org/en/docs/iprs\\_pb20092\\_en.pdf](http://www.unctad.org/en/docs/iprs_pb20092_en.pdf) [Accessed March 25, 2012].

abusive use of parallel imports in the first scenario. In between these two factions are the calls to establish a system of “regional exhaustion” that would reconcile the two opposite views mentioned above.

### **The in-built flexibilities of the TRIPS Agreement.**

Around 75 per cent of the parties to the UNFCCC are also parties to the TRIPS Agreement. This sole finding explains why so much emphasis has been put on the flexible provisions of the TRIPS Agreement in the climate negotiations. Generally speaking, some tend to consider that the TRIPS Agreement found quite a good balance between the obligations it imposed on the Member States and the leeway it conceded to them. On the one hand, the TRIPS Agreement instituted minimum standards of IP protection applicable to all Member States. On the other hand, some provisions, best known as the “TRIPS flexibilities”, allow them to frame their IP national regimes in accordance with their public policy objectives and priorities—in this case, the protection of the environment. Nevertheless, the recourse to these flexibilities has not proven easy in the past,<sup>60</sup> and the WTO-TRIPS panels have yet to clarify the scope of these flexibilities.<sup>61</sup>

There exist three main “flexibilities” in the TRIPS Agreement, namely: (a) the “morality clause”; (b) the “unauthorized use exception”; and (c) the “compulsory license”.

#### **(a) Article 27.2 — the “morality clause”.**

This provision allows the Member States to exclude from patentability, within their borders, every invention that might cause some “serious prejudice to the environment”. While very useful at first sight, this flexibility is too vague, for now, to be effectively put in practice because it fails to specify the level of prejudice that might be actual or potential, as well as the degree of seriousness required to take action against an inventor. This loophole stems from the fact that this provision has never been tried by a WTO panel, leaving the Members in their uncertainty as to the risk of implementing it the wrong way.<sup>62</sup> Beyond that assertion, patent offices of the Member States that would successfully incorporate the content of art.27 into their own legal orders would have the opportunity to exclude CO<sub>2</sub> emitting inventions on this sole basis.<sup>63</sup> It must be noted that this alternative is actively promoted by the Group of 77 and China within the climate talks.<sup>64</sup>

<sup>60</sup> ICTSD, “Climate Change, Technology Transfer and Intellectual Property Rights”, presentation at the Trade and Climate Change Seminar, June 18–20, 2008, Copenhagen, Denmark, p.7, available at [http://www.iisd.org/pdf/2008/cph\\_trade\\_climate\\_tech\\_transfer\\_ipr.pdf](http://www.iisd.org/pdf/2008/cph_trade_climate_tech_transfer_ipr.pdf) [Accessed March 25, 2012].

<sup>61</sup> How far-reaching the flexibilities are in practice has only been tried in a few cases. The WTO-TRIPS panels have rather confirmed the scope and strength of IP right. For more information, see Bruno de Vuyst, Alea M. Fairchild and Gunther Meyer “Exceptions to Intellectual Property Rights: Lessons from WTO-TRIPS Panels” (2003) 10(4) *Murdoch University Electronic Journal of Law*, available at [http://www.murdoch.edu.au/elaw/issues/v10n4/meyer104\\_text.html](http://www.murdoch.edu.au/elaw/issues/v10n4/meyer104_text.html) [Accessed March 25, 2012].

<sup>62</sup> The EPO, on the other hand, in its role of the watchman of the European Patent Convention (EPC), has already been confronted several times with disputes where environmental considerations took the precedence over the rights of the patent owner in accordance with art.53(a) of the Convention. In *Plant Cells/Plant Genetic Systems*, it asserted that “applying these principles to global warming, it could mean that the cost-benefit analysis test could be used only if there is evidence that a specific invention causes actual damage or disadvantage to the environment. In that case, if the risk outweighs its benefit(s) to society, then it should not be patentable under Article 53 (a) of the EPC ... but only to the extent that the damage is ‘sufficiently substantiated at the time the EPO makes its decision to revoke the patent’”. *Plant Cells/Plant Genetic Systems* (T-356/93) [1995] OJ EPO 545.

<sup>63</sup> Please note that the requirement of seriousness will be appraised in significantly differing ways depending on the interpretation advanced by the Members: A broad view would lead the Member States to exclude from patentability ANY inventions that emit CO<sub>2</sub>, while a more restrictive and reasoned view would encourage the States to make a “cost-benefit analysis” in terms of the value of the invention for society and the level of CO<sub>2</sub> emitted. The last one seems more appropriate and was shared by the EPO on several occasions. Estelle Derclaye, “IP and Global Warming” (2008) 12(2) *Marq. Intell. Prop. L. Rev.* 270.

<sup>64</sup> See s.13 of the Copenhagen version of the AWG-LCA negotiating text: “Parties shall take all necessary steps in all relevant forums to exclude from Intellectual Property Rights protection ... in developing countries and least-developed countries on environmentally sound technologies to adapt to and mitigate climate change”. UNFCCC, “Report of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention on its eighth session, held in Copenhagen from 7 to 15 December 2009”, FCCC/AWG/LCA/2009/17, available at <http://unfccc.int/resource/docs/2009/awglca8/eng/17.pdf> [Accessed March 25, 2012].

(b) **Article 30 — the “unauthorized use exception”.**

Article 30 of the TRIPS Agreement highlights the fact that the exclusive rights conferred to the patent owners are not absolute by nature and that WTO Members may provide “limited exceptions” to them. This means that countries may, under certain circumstances, automatically allow the use of the patented invention by a third party without consent of the patent holder. An example is provided by the “experimental use exception”, which permits use of the patented invention for research or experimental purposes by parties other than the patent owner. This exception, which has been incorporated in most European patent laws, illustrates the latitude conferred by the TRIPS Agreement. But it might not be helpful for developing countries as it presupposes that there is some local capability in the technological field. This might not be the case for all ESTs but other difficulties might occur: even if they can be locally produced in the South, there might be some bottlenecks in the technology or some components which require more sophisticated processes that are not available outside a few developed countries. For instance, the basic technology for solar panels is quite simple and no longer protected by patents, but there might be a bottleneck as the process for enriching silicium needed for the solar cells is still very complex and only a very few companies can efficiently perform this.<sup>65</sup>

(c) **Article 31 — the provision on “compulsory license”.**

This provision covers various situations where the patent owner has expressly refused to license its invention to a third party that “has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time”. In this situation, art.31 requests the Member State to provide for a mechanism specifically designed to grant compulsory licences on certain conditions—conditions left to the discretion of the States. Consequently, by leaving to the States the latitude to define the grounds for which a compulsory licence could be granted as well as to determine what constitutes national emergency or other circumstances of extreme urgency, this provision provides technology-dependent nations with a significant means to gain access to patented ESTs. However, the implementation of the compulsory license scheme has proven to be very controversial in the past and has encountered vivid reactions from the European Union and the United States in the context of climate change negotiations.<sup>66</sup> Advocates of this corrective mechanism argue that compulsory licensing is a common practice in many countries; they highlight the fact that the United States has various provisions in its own legislation,<sup>67</sup> which have the same effect as a compulsory license. The same mechanism is also enshrined in various European laws.<sup>68</sup> One of the myths

<sup>65</sup> Arnaud de la Tour, Matthieu Glachant and Yann Ménière, “Innovation and International Technology Transfer: The Case of the Chinese Photovoltaic Industry” (2010) CERNA, Working Paper Series No. 2010-12, p.14, available at [http://www.cerna.enscm.fr/images/DocumentsWP/cerna\\_wp201012.pdf](http://www.cerna.enscm.fr/images/DocumentsWP/cerna_wp201012.pdf) [Accessed March 25, 2012].

<sup>66</sup> Business Europe, IIPPF, and the US Chamber of Commerce, “Joint Resolution of Business Europe, IIPPF, and the US Chamber of Commerce on Restrictions of IP rights and Compulsory Licensing”, December 9, 2008, available at <http://www.jetro.go.jp/theme/ip/iipff/pdf/press081222.pdf> [Accessed March 25, 2012].

<sup>67</sup> The US Clean Air Act (42 U.S.C. s.7608) specifies that the United States can require the owner of a patented technology necessary to enable another party’s compliance (i.e. technology needed to meet agreed standard) to license the technology in exchange for a reasonable royalty set by a federal court. The same way, the “march-in rights” disposition under the Bayh-Dole Act (35 U.S.C. s.203) provides that the government may, under a set of specific circumstances, march in and take over rights from the patent holder, which developed a drug, device, therapy, or technology using government funds.

<sup>68</sup> “Compulsory licensing is permitted in Europe (called ‘public interest’ compulsory license) but there are no recorded examples of its use, as it is generally regarded as a ‘nuclear option’ by both governments and business, who will come to an agreement without its use being invoked.” Ian Harvey, “Intellectual Property Rights: The Catalyst to Deliver Low Carbon Technologies” (2009) The Climate Group, Braking the Climate Deadlock, Briefing Paper, available at [http://www.theclimategroup.org/\\_assets/files/Intellectual-Property-Rights.pdf](http://www.theclimategroup.org/_assets/files/Intellectual-Property-Rights.pdf) [Accessed March 25, 2012].

defended by those advocates and some countries of the South is that “technology transfer can occur in a one way flow”,<sup>69</sup> referring to the assumption that the removal of the alleged IP barrier would extensively foster the transfer of ESTs. Under this view, IPRs obstruct the access to green technologies and the urgency of the situation calls for the application of compulsory licenses. This vision has been translated into the wording of para.13 of the AWG-LCA negotiating text: “Developing countries have the right to make use of the full flexibilities contained in the TRIPS Agreement, including compulsory licensing” (see box p.12). Nevertheless, compulsory licensing is not necessarily the right solution because ESTs are capital and labour intensive, and a lot of transformations—in terms of capacity building, for example—should happen before some ESTs can be transplanted and work properly. Similarly, compulsory licensing only applies to patented technology, but in many areas, one knows that the real value might reside in the know-how surrounding the invention. Imposing a compulsory licence might thus sever the access to this know-how, potentially limiting the usefulness of the technology. The ready-made mechanism of compulsory licensing, which might be attractive at first sight, is thus not the panacea, and its overall efficiency in promoting a true transfer of technology remains unlikely.<sup>70</sup>

### **ESTs are very different from pharmaceuticals.**

Member States of the South have advocated the amendment of the TRIPS Agreement in the same way as for the access to medicine through the Doha Declaration.<sup>71</sup> The effectiveness of the new compulsory licensing schemes for certain medicines following the Doha Declaration is not yet clear—this is a complex issue that goes well beyond the present contribution. A transposition of compulsory licensing in the context of ESTs raises even more problems. The products (medicines v ESTs) and the markets have distinctive features that may call for a different treatment. Let us just point to some of the differences. Unlike pharmaceuticals, climate technologies are not a stand-alone product, they are a “bulk product”. Contrary to the “single-supply business model” that predominates in the pharmaceutical market where small volume pills may be sent worldwide from one single place of production, climate technology has to be done locally in cooperation with local industries. ESTs generally form part of a larger product or unit of operation such as a car, a power station or even the energy grid which integrates various elements that should best work together. The transfer of ESTs is thus not likely to produce the expected results if the larger product or unit cannot be adequately produced or replicated. For many ESTs, the technology is already in the public domain, and patents are not relevant at all. For patented technologies, it is likely that patents do not exist in many countries—in particular, in less developed countries (contrary to the pharmaceutical sector where innovative substances tend to be patented in many countries). Relying on compulsory licenses for ESTs is thus not likely to produce a “quick fix” to the problems for many reasons.

<sup>69</sup> Cynthia Cannady, “Access to Climate Change Technology by Developing Countries: A Practical Strategy” (2009) ICTSD Intellectual Property and Sustainable Development Series, Issue Paper No.25, available at <http://ictsd.org/i/publications/58385/> [Accessed March 25, 2012].

<sup>70</sup> Maskus, “Differentiated Intellectual Property Regimes for Environmental and Climate Technologies” (2010) OECD, Environment Working Papers No.17, pp.26–27.

<sup>71</sup> Very recently, India contended that “[a]dequate commitments are also required in order to ensure that IPRs in themselves do not become a barrier for transfer of technology ... To give effect to this commitment especially in the context of critical EST required by a WTO Member, innovative mechanisms would need to be conceptualized to allow for compulsory licensing for export of such technology to another Member. The Doha Declaration on Public Health could provide the basis of one such innovative mechanism.” WTO Committee on Trade and Development, “WTO Negotiations on Environmental Goods and Services: Addressing the Development Dimension for a ‘Triple-Win’ Outcome: Communication from China and India”, April 15, 2011, TN/TE/W/79.

### The concept of special and differential treatment.

While the TRIPS flexibilities outlined above are available to all countries, the special and differential treatment provisions (SDTs) offer alternatives specifically designed for the developing and least developed country members and only available to them. The idea behind the “differential and more favourable treatment provisions” that transcend both the GATT, the WTO Agreements and many multilateral environmental agreements (including the UNFCCC and the Kyoto Protocol)<sup>72</sup> is that the developing countries and LDCs should benefit from a different set of rules allowing them to reach a sufficient level of economic development before being subject to stringent international obligations. Applied to the TRIPS Agreement, this would mean that developing countries and LDCs-friendly provisions should adequately balance the rights and obligations applicable to them with their less favourable economic situation. The TRIPS Agreement contains four references to the SDTs that can be regrouped under two headings: first, the extension of the implementation periods (called the “transition period”—arts 65 and 66.1 of the TRIPS Agreement) for the above-mentioned countries; secondly, the various commitments by developed countries to promote TT and technical and financial assistance to developing countries (arts 66 and 67 of the TRIPS Agreement).

| Summary of the provisions contained in the TRIPS Agreement for the differential and more favourable treatment of developing countries and LDCs <sup>73</sup> |                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Article                                                                                                                                                      | Provision for developing country members                                                                                                                                                                                                                                                                                    | Provision specifically for least-developed country members                                                                                                                         |
| Preamble                                                                                                                                                     | Recognition that objectives of national systems of IP protection include developmental objectives.                                                                                                                                                                                                                          | Recognition of special interest of LDCs in respect of maximum flexibility in implementation of domestic regulations in order to enable the creation of a sound technological base. |
| 65.2 and 65.4                                                                                                                                                | Four year transitional period additional to one year available to all original members (applicable to most but not all TRIPS obligations). Further five year extension in cases where Agreement requires extending product patent protection to areas of technology not so protectable by end of general transition period. |                                                                                                                                                                                    |
| 66                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                             | Delay for up to 10 years for most TRIPS obligations. Possibility of extension following duly motivated request.                                                                    |
| 66.2                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                             | Developed country members to provide incentives to enterprises and institutions in their territories for purpose of encouraging transfer of technology to LDCs.                    |
| 67                                                                                                                                                           | Provision by developed members of technical and financial cooperation.                                                                                                                                                                                                                                                      |                                                                                                                                                                                    |

<sup>72</sup> Principle 7 of the Rio Declaration states: “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.” Similarly, the Preamble of the UNFCCC states that Parties should act to protect the climate system “on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities”. Krishna Ravi Srinivas, “Climate Change, Technology Transfer and Intellectual Property Rights” (2009) Research and Information System for Developing Countries, Discussion Paper, p.29, available at [http://www.ris.org.in/images/RIS\\_images/pdf/dp153\\_pap.pdf](http://www.ris.org.in/images/RIS_images/pdf/dp153_pap.pdf) [Accessed March 25, 2012].

<sup>73</sup> World Trade Organization, “Annex II: Summary of Provisions Contained in the Uruguay Round Agreements for the Differential and More Favourable Treatment of Developing and Least Developed Countries”, available at [http://www.wto.org/english/tratop\\_e/devel\\_e/annexii\\_e.doc](http://www.wto.org/english/tratop_e/devel_e/annexii_e.doc) [Accessed March 25, 2012].

The SDTs remind us that different levels of development call for adequate and differentiated level of IP protection. To be fair, the TRIPS provisions should have taken into account the specificities of each Member States before determining the length of the “transition period” while, at the same time, creating a solid and effective framework for the “technical and financial cooperation” supposedly coming from the developed countries.<sup>74</sup> In the climate change context, it is no longer the idea of development that justifies such SDTs, but more the observation that countries have “common but differentiated responsibilities” that justify the setting up of different stages of GHG commitments. Unlike in the TRIPS-alike debate, the interests at stake are crucial for every country; it is no longer about an asymmetrical balance of economic and political power that distorts the rules of the game. As a matter of fact, while the transfers of ESTs will be, unsurprisingly, the cornerstone of any climate deal in the near future, such transfers are, through the “Mechanisms” instituted by the Kyoto Protocol, not only environmental-friendly, but also, and mainly, commercially viable. Indeed, each time a green technology is transferred through these mechanisms, a reward, in terms of GHG emissions (e.g. “carbon credit”), is given to the Member State involved.<sup>75</sup>

Therefore, aside from the stringent commitments imposed on the historically most polluting nations, there is room for SDT measures that would favour both the technology-dependent nations by way of transfer of ESTs and the transferors through the decrease of the GHG commitment. With this in mind, the delegates of the States could, on the occasion of the UNFCCC Climate Negotiations, draw inspiration on the TRIPS Agreement and discuss further SDTs with regard to IP and the transfer of ESTs. This, in turn, would allow some differentiation in the global IP framework at a time when the adverse effect of the TRIPS harmonization are experienced in various parts of the world in a multi-disciplinary landscape (public health, environment, and traditional knowledge). More importantly, in a post-2012 scenario, the developing countries and the LDCs, which were previously exonerated from any GHG commitments, will be asked to participate in the global effort to mitigate the effect of climate change. All in all, there is an urgent need to create IP-friendly mechanisms for the benefit of the technology-dependent nations in order to allow the leapfrogging of various stages of technological evolution (i.e. get access directly to the most advanced ESTs). We might question why an IP-related tool is not yet attached to the existing “Mechanisms” in order to bring back the cost of IP to the IP-exporter countries that would earn GHG credit from the operation while opening new markets to their national industries.<sup>76</sup>

## Prospects: Can we expect something on IPR from the COP in the future?

### COP 15: “Hopenhagen” and the onset of climate Realpolitik.

The presence and personal investment of the world leaders in the decision-making process at the “Copenhagen Summit” featured the international recognition and consecration of global warming as an inescapable challenge. Many Heads of State realized that

<sup>74</sup> Constantine Michalopoulos, “Special and Differential Treatment of Developing Countries in TRIPS” (2003) Quaker United Nations Office, International Affairs Programme, TRIPS Issues Paper No.2, available at <http://www.uno.org/geneva/pdf/economic/Issues/Special-Differential-Treatment-in-TRIPS-English.pdf> [Accessed March 25, 2012].

<sup>75</sup> UNFCCC, “The Mechanisms under the Kyoto Protocol”, available at [http://unfccc.int/kyoto\\_protocol/mechanisms/items/1673.php](http://unfccc.int/kyoto_protocol/mechanisms/items/1673.php) [Accessed March 25, 2012].

<sup>76</sup> It must be noted that this idea is in line with the creation of a “Green Technology Package Programme” proposed by the Japan Intellectual Property Association (JIPA), under the auspices of the World Intellectual Property Organization (WIPO)—also known as the “WIPO Green Programme”. This project has been presented on the occasion of the Conference on Innovation and Climate Change organized by WIPO in Geneva on July 11–12, 2011 (<http://www.wipo.int/climate/en/>). The basic idea is to give carbon credit to country members that would, in exchange, partially finance the acquisition of IP licences by developing country companies to developed country licensors, the latter obtaining the full royalty prices ultimately through tax reductions. For more information, see Dr Rama Rao, “WIPO Green: the Sustainable Technology Exchange”, presentation at the Conference on IP and Green Tech: “Accelerating Commercialization & Promoting Global Innovation”, organized by the USPTO and Diplomacy Matters Institute, Alexandria, US, June 1, 2011, available at [http://www.diplomacymatters.org/programs/ip\\_greentech/index.php](http://www.diplomacymatters.org/programs/ip_greentech/index.php) [Accessed March 25, 2012].

“there is more at stake at Copenhagen than the climate.... [T]his is the most important forum in several years. What seems to be an environment discussion is more a political and economical negotiation”.<sup>77</sup>

The many Head of States have planted, in Copenhagen, the foundations of a long-term oriented agreement on the basis of which further commitments can be grafted. Indeed, even if the “Copenhagen Accord” had no legally binding force for the States because it only constitutes a “statement of intent”, it was the first time that the issue of climate change outreached the level of NGOs or delegates of the governments.

### **COP 16, COP 17: The TM and the Green Climate Fund, no mention of IP.**

From the time the Copenhagen Accord was decided, the setting up of the financial mechanism and a parent institution on TT and development were at the heart of the many discussions that animated debates in the various climate fora throughout the world. During 2010, two meetings took place in Bonn<sup>78</sup> where

“it appeared that some issues—such as REDD-Plus, the Technology Mechanism, Capacity Building and, to some extent, financing—were coming together faster than others and some countries consider these could be early harvest items for Mexico, should parties then not be ready for a full package deal”.<sup>79</sup>

The two Bonn meetings served as a barometer to assess the feasibility of the above-mentioned treaty project in the short-term. Yvo de Boer, the former UNFCCC chief, invited “countries to put their money where their mouths are”.<sup>80</sup> Having this in mind, it was crucial to reach an agreement in Cancun on how to operate what had already been decided, but not unanimously approved in Copenhagen with regard to those two institutions. The “Cancun Accord”, by setting aside the many contentious issues (IP was one of them), resolved to focus exclusively on short-term practical achievements that would propel the negotiations on a higher stage. Again, according to de Boer, “developing countries especially would want to see what an agreement would entail for them before they are willing to turn it into a legally-binding treaty”. This statement was further reflected in the outcomes of the Durban Agreement the following year, which included a decision by parties to adopt a universal legal agreement on climate change as soon as possible, and no later than 2015. Moreover, in Durban, parties agreed on key arrangements to make the TM fully operational in 2012.<sup>81</sup>

### **IP in the future: A dormant opposition on the lookout for a call for justice.**

TT and the protection of IPR have, from the outset, been associated with the climate change negotiations. The Bali Plan of Action, which called for enhanced action on TT, already resulted in the creation of the IP minimalist movement that asserts the need for a more adequate IP regime in relation to climate issues. However, the recurrent criticisms of various groups of countries (Group of 77, BASIC countries<sup>82</sup> and BRIC countries) have not led so far to concrete references to IP in the numerous texts that have been negotiated by the delegates of the Parties to the UNFCCC. As time

<sup>77</sup> Morten Andersen, “Copenhagen Was More Than the Accord”, available at <http://www.denmark.dk/en/menu/Climate-Energy/COP15-Copenhagen-2009/Selected-COP15-news/Copenhagen-was-more-than-the-accord.htm> [Accessed March 25, 2012].

<sup>78</sup> Bonn Climate Change Talks, April 9–11, 2010, available at [http://unfccc.int/meetings/intersessional/bonn\\_10/items/5533.php](http://unfccc.int/meetings/intersessional/bonn_10/items/5533.php) [Accessed March 25, 2012]; Bonn Climate Change Talks, May 31–June 11, 2010, available at <http://unfccc.int/meetings/sb32/items/5573.php> [Accessed March 25, 2012].

<sup>79</sup> ICTSD, “Climate Deal in Cancun in Question as Bonn Gets Underway”, *Bridges Trade BioRes*, May 31, 2010, available at <http://ictsd.org/i/trade-and-sustainable-development-agenda/76950/> [Accessed March 25, 2012].

<sup>80</sup> ICTSD, “Climate Deal in Cancun in Question as Bonn Gets Underway”, *Bridges Trade BioRes*, 2010.

<sup>81</sup> UNFCCC, “Outcome of the Work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention”, Draft decision [/-CP.17], available at [http://unfccc.int/files/meetings/durban\\_nov\\_2011/decisions/application/pdf/cop17\\_lcaoutcome.pdf](http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_lcaoutcome.pdf) [Accessed March 25, 2012].

<sup>82</sup> BASIC countries refer to the combination of Brazil, South Africa, India, and China.

goes by, *from Bali to Copenhagen, from Copenhagen to Cancùn, via Bonn*, there are no apparent signs of a solution to the IP debate. Bolivia, one of the strongest opponents to the inequities stemming from the TRIPS Agreement voiced strong objections in Cancùn and challenged the UN Climate Deal on the grounds that it was not encouraging the spread of clean technology by weakening IP rights.<sup>83</sup> By standing alone and strongly insisting on the weakening of the IP system as a prerequisite to any climate deal, Bolivia made sure that IP will not be so easily removed from the UN Climate Agenda.<sup>84</sup> A few months later, India followed Bolivia's lead and issued a proposal for the inclusion of additional agenda items in the provisional agenda of COP 17, including IP-related items such as the treatment and delivery of climate technologies and their IPRs as public good.<sup>85</sup> To conclude, although it seems very unlikely that a decision on the role of IP in the transfer of ESTs will be adopted in the short term (COP 18 in Qatar in 2012), this issue will most certainly remain the subject of a series of informal meetings in the future. We have barely seen the tip of the iceberg, IP and TT must go hand in hand in the climate discussion.

<sup>83</sup> Other countries, such as Venezuela, Ecuador and Cuba, first supported this vision, but backed down at the last moment because they realized they were standing in the way of a historic agreement. Simon Crompton, "Bolivia Rejects Cancun Deal on IP Grounds", *Managing IP*, December 15, 2010, available at <http://www.managingip.com/Article/2737358/Bolivia-rejects-Cancun-deal-on-IP-grounds.html> [Accessed March 25, 2012].

<sup>84</sup> See the speech made by Ambassador Pablo Solon of the plurinational State of Bolivia at the Cancùn Conference, December 4, 2010, available at <http://boliviaun.net/cms/?p=1889> [Accessed March 25, 2012].

<sup>85</sup> UNFCCC, "Proposals by India for inclusion of additional agenda items in the provisional agenda of the seventeenth session of the Conference of the Parties (item 11: Accelerated access to critical mitigation and adaptation technologies and related intellectual property rights)", September 21, 2011, FCCC/CP/2011/INF.2, available at <http://unfccc.int/resource/docs/2011/cop17/eng/inf02.pdf> [Accessed March 25, 2012].