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**Council for Trade-Related Aspects  
of Intellectual Property Rights**

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**CONTRIBUTION OF INTELLECTUAL PROPERTY TO FACILITATING THE  
TRANSFER OF ENVIRONMENTALLY RATIONAL TECHNOLOGY**

**COMMUNICATION FROM ECUADOR**

**1 BACKGROUND**

1. The opening paragraph of the preamble to Marrakesh Agreement Establishing the World Trade Organization (WTO) lists among the guiding principles and objectives of the world trading system the objective of sustainable development together with the protection and preservation of the environment. It also recognizes that the multilateral trading system should take into account the Members' asymmetries and different levels of development. Members reiterated their commitment to these principles at the WTO's Fourth Ministerial Conference, in paragraph 6 of the Doha Ministerial Declaration. Hence the Doha mandates also stress the importance of appropriate coordination between the WTO Agreements and the multilateral environmental agreements (MEAs), as well as the Members' right to promote and protect the environment. The Doha Declaration provides, in paragraph 31(i), for the opening of negotiations on the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements, while in paragraph 33 it recognizes the importance of technical assistance and capacity building in the field of trade and environment to developing countries.

2. Likewise, in the preamble to the Agreement on Trade-Related Aspects of Intellectual Property Rights, Members refer twice to the promotion of technology transfer to developing countries. Furthermore, the provisions on the basic objectives<sup>1</sup> and principles<sup>2</sup> of the TRIPS Agreement recognize the need for the development and transfer of technology in order to create sound and viable technological foundations for protecting public health and nutrition and to promote the public interest in sectors of vital importance to their socio-economic and technological development. In addition, in both letter and spirit these provisions seek to preserve a balance of rights and obligations between intellectual property producers and consumers, and recognize the Members' right to adopt multilateral joint measures and mechanisms in order to "prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology".<sup>3</sup>

**2 JUSTIFICATION**

3. The issue of technology and its transfer is a fundamental aspect of the fight against climate change and adaptation to and mitigation of its harmful effects. Hence the timely dissemination and transfer of technology are essential for achieving that objective, and consequently one of the major challenges facing the international community in its response to this problem.<sup>4</sup>

4. The issue of intellectual property rights and the debate over technological cooperation is becoming a fundamental aspect of how best to adapt to and combat the harmful effects of climate change, particularly for developing countries. Discussions in forums concerned with environmental protection and preservation highlight the fact that lack of information and excessive protection, inappropriate enforcement and abuse of intellectual property rights, and particularly patents,

<sup>1</sup> Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Art. 7.

<sup>2</sup> *Ibid.*, Art. 8.

<sup>3</sup> *Ibid.*, Art. 8.

<sup>4</sup> Carlos M. Correa, "Mechanisms for International Cooperation in Research and Development in the Area of Climate Change", Technical Cooperation and Climate Change: Issues and Perspectives, UNDP, p. 39.

without any consideration for effectively fostering "... social and economic welfare and ... a balance of rights and obligations" between producers and users,<sup>5</sup> can constitute a kind of barrier to access to this kind of technology, particularly for developing countries.<sup>6</sup>

5. This is because they create an exclusive exploitation right for the holder of the invention (product or process) within a specified territory and for a specific period of time, which occasionally creates a monopolistic situation characterised by high prices and a restriction of the dissemination of knowledge for adaptation and use of environmentally-sound technology (EST). There are therefore grounds for arguing that the question of intellectual property rights should also be included in the discussions on mechanisms for the transfer of ESTs.<sup>7</sup>

6. We believe that this is a valid argument, and therefore share some ideas on the options that could be considered with regard to intellectual property rights and climate change in the context of the international trading system, such as: automatic granting of rights through voluntary licensing, use of the TRIPS flexibilities, and regulating licensing costs, *inter alia*. It is unfortunately the case that the increased difficulties of access to renewable energy technologies, i.e. ESTs, are reflected in the restrictive conditions and limitations imposed on acquiring and implementing them, as seen in the imposition of linked clauses, retrocession provisions, export prohibitions and so forth.<sup>8</sup>

7. When considering the principle of common but differentiated responsibilities, development priorities, objectives and circumstances, the countries parties to the United Nations Framework Convention on Climate Change (UNFCCC), most of whom are WTO Members, undertook, in Article 4.1 of the Convention, to promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent emissions of greenhouse gases. It should be emphasized in this connection that despite this affirmation and the recognition in this context of the importance of promoting transfer of ESTs, in the preparatory work for the Cancún Conference and the negotiations during the Conference on Climate Change on 29 November 2010 participants were unable to agree on a proposal submitted by a number of developing countries, including Ecuador for the inclusion of intellectual property provisions in the document. The thrust of the proposal was basically that the countries parties to the Convention should agree on action to exclude ESTs from intellectual property rights protection and fully facilitate the implementation of the "flexibilities" in the TRIPS Agreement, particularly in the case of the more vulnerable developing countries. This failure was in particular the result of strong opposition from the developed countries, led by the United States.

8. Furthermore, in this context the United Nations General Assembly has adopted several resolutions on "Protection of Global Climate for Present and Future Generations of Mankind"<sup>9</sup> and "Promotion of New and Renewable Sources of Energy"<sup>10</sup> in which it both reaffirms the international community's commitment to the UNFCCC objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference in the ecosystem, and also recognizes the fundamental role played by innovative renewable energy technologies in combating and alleviating climate change and its harmful effects. It therefore calls on the international community and the United Nations system to raise awareness with regard to greater support for such technologies, and highlights the importance of continuing the consideration of this major issue and the need to create at all levels the conditions for their promotion and use, including measures to improve access to them.

<sup>5</sup> Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), Art.7, "Objectives".

<sup>6</sup> Soni Preet, Technology Cooperation for Addressing Climate Change, TECHNOLOGICAL COOPERATION AND CLIMATE CHANGE: Issues and Perspectives, UNDP, p. 21. According to Soni, examples would be the patent system, level of competition, selling prices and reasonableness of licensing terms.

<sup>7</sup> Soni Preet points out that, since climate change is a universal problem, it would be ideal to exclude priority technologies relating to climate change from the right to be patented, while establishing institutional mechanisms for information exchange concerning them. *Ibid.*, p.24.

<sup>8</sup> *Idem* 4, p. 43.

<sup>9</sup> Resolutions 43/53 of 6 December 1998, 54/222 of 22 December 1999, 62/886 of 10 December 2007, 63/32 of 26 November 2008, 64/73 of 7 December 2009 and 65/159 of 21 December 2010.

<sup>10</sup> Resolutions 53/7 of 16 October 1998, 54/215 of 22 December 1999, 55/205 of 20 December 2000, 56/200 of 21 December 2001, 58/210 of 23 December 2003, 60/199 of 22 December 2005, 62/197 of 19 December 2007, 64/206 of 21 December 2009 and 65/151 of 20 December 2010.

9. During the United Nations Conference on Sustainable Development in June 2012, the international community evaluated the progress made in development and use of new and renewable sources of energy and related technologies. The Conference addressed two fundamental issues that have a bearing on the subject of this Communication: (a) the green economy in the context of sustainable development and poverty eradication, and (b) the institutional framework for sustainable development. Thus, Member States affirmed that green economy policies should reduce the technological dependence of developing countries and contribute to closing the current technological gap between developed and developing countries;<sup>11</sup> and recognized the fundamental role played by the transfer of renewable energy technologies for sustainable development, poverty eradication, as well as the major challenges and obstacles facing developing countries in accessing, adopting and using such technologies, particularly in combating, adapting to and mitigating the harmful effects of climate change.<sup>12</sup>

10. Accordingly, Ecuador submits this Communication as a contribution by the multilateral trading system to global strategies to enhance access to clean energy, increase energy efficiency and accelerate worldwide implementation of renewable energy technologies from the standpoint of intellectual property. It puts forward considerations for Members to assess the benefits of eliminating or reducing the existing restrictions or barriers and facilitating access to and use of ESTs in the WTO, and specifically in the Council for Trade-Related Intellectual Property Rights.

11. By way of example, according to World Bank data the cost of royalties and licences for the use of intellectual property rights is increasing rapidly: world flows rose from US\$135 billion in 2005 to reach US\$245 billion in 2010. The bulk of these royalties went to the United States (42%), the European Union (36%), Japan (10%) and Switzerland (7%), while most developing countries are net importers, that is to say payers, of royalties and licences.<sup>13</sup>

12. Thus, if the OECD countries represent 78% of total research and development spending while Asia (excluding Japan) accounts for 19%, Latin America 2.4%, the Near and Middle East 1.2%, and Africa 0.7%, then, as Correa puts it,<sup>14</sup> "the world distribution of research and development budgets is indicative of one of the most dramatic asymmetries" existing between developed countries and developing countries in the sphere of technological development in general and ESTs in particular. Moreover, specifically with regard to ESTs, the available information indicates that most patents granted for such technologies belong to firms based in North America, Western Europe and Japan.<sup>15</sup> All in all, OECD data indicates that in 2005 the European Union accounted for 36.7% of renewable energy patents, the United States 20.2% and Japan 19.8%, compared with 2.9% for China and 2.3% for Korea.<sup>16</sup>

13. As a Communication from China and India<sup>17</sup> to the WTO Committee on Trade and Environment (CTE) has already highlighted, intellectual property rights must not become a barrier for transfer of technology to developing countries. There must also be coordination and cooperation between developed countries and the private sector linked with the creation and diffusion of ESTs to facilitate and assist in combating climate change and adaptation and/or mitigation of its harmful effects, particularly as regards technologies designed to reduce and/or eliminate the harmful accumulation of CO<sub>2</sub>.

14. To this end, there must be genuine, real international cooperation that takes the form of fair and balanced trade between countries leading to the creation of fair and reasonable patterns of use and trade of new technologies in the context of a successful green-economy revolution to which we aspire.<sup>18</sup> It is therefore essential to reorient the world intellectual property regime in the context of adaptation and/or mitigation of the harmful effects of climate change, assuming that there is a real intention to support the efforts of the most vulnerable developing countries to adapt

<sup>11</sup> Document **A/CONF.216/L.1 of 19 June 2012, paragraph 58 (i), page 11.**

<sup>12</sup> *Ibid.*, paragraph 269 *et seq.*, pages 56-57.

<sup>13</sup> World Bank, World Bank Development Indicators, royalty and license fees, payments" and "royalty and license fees, receipts", <http://data.worldbank.org/indicator>.

<sup>14</sup> *Idem* 4, p.45.

<sup>15</sup> Martin Khor, "Climate Change, Technology and IPR" Technical Cooperation and Climate Change: Issues and Perspectives, UNDP, p.80.

<sup>16</sup> *Idem* 13, p. 80.

<sup>17</sup> TN/TE/W/79 of 15 April 2011.

<sup>18</sup> *Idem* 4, p.51.

and to mitigate those effects.<sup>19</sup> The WTO Agreement on Trade-Related Aspects of Intellectual Property Rights is the cornerstone of multilateral intellectual property standards and therefore the most important of the international instruments in this field.

15. Finally, in the case of environmentally sound technologies linked to adaptation and/or mitigation of climate change caused by CO<sub>2</sub>, we consider that these must be considered a "public good"<sup>20</sup> since by their nature and purpose they seek to promote global social welfare through adaptation and/or mitigation of the effects of climate change. This welfare is reflected in the adoption of government "public policies" designed to establish remedies and solutions for reducing and/or eliminating the causes of climate change in the context of promoting public and environmental health.<sup>21</sup> Such public policy elements were endorsed in the Doha Declaration on the TRIPS Agreement and Public Health, which states that the TRIPS Agreement "... does not and should not prevent Members from taking measures to protect public health".<sup>22</sup>

### **3 SCOPE OF THE PROPOSAL TO EVALUATE THE TRIPS AGREEMENT FROM THE STANDPOINT OF MITIGATION OF ENVIRONMENTAL PROBLEMS**

16. The evaluation and possible revision of the framework for the protection of intellectual property rights for technological applications would be one of the most important options for developing countries with regard to climate change. The aim is, firstly, to reaffirm the existing flexibilities in the TRIPS Agreement in connection with ESTs, and secondly, to initiate a process of evaluation to enhance the flexibility of disciplines on patentability of ESTs, whose use could produce considerable environmental benefits, thus constituting efficient tools for effective adaptation and/or mitigation as part of developing countries' climate change strategies.

17. As mentioned above, the objectives of this Communication are:

- a. reaffirmation of the existing flexibilities in the TRIPS Agreement so that Members use them in connection with ESTs, for example through a declaration addressing flexibilities in the TRIPS Agreement, climate change and access to ESTs;
- b. initiation of a review of Article 31 of the TRIPS Agreement to determine which of its provisions may excessively restrict access to and dissemination of ESTs, and particularly its paragraph (f) and the need to include provisions on, as the case may be, the transfer of expertise or know-how to implement compulsory licences;
- c. evaluation of the regulation of voluntary licensing and the conditions thereof from the standpoint of the most pressing needs of the most vulnerable developing countries in relation to adaptation to and mitigation of climate change;
- d. recognition that adaptation to and/or mitigation of the harmful effects of climate change should be assimilated to the concept of "public interest", with the adoption of a provision authorizing exemption from patentability, on a case-by-case basis, for inventions whose exploitation is vital for the diffusion of ESTs needed for adaptation and/or mitigation of climate change;
- e. evaluation of Article 33 of the TRIPS Agreement to establish a special reduction in the term of protection for a patent of [X] years in order to facilitate free access to specific patented ESTs for adaptation and/or mitigation of the effects of climate change because of urgent need in the public interest; and

<sup>19</sup> Littleton Matthew, "The TRIPS Agreement and Transfer of Climate-Change-Related Technologies to Developing Countries, p. 1.

<sup>20</sup> Over 100 non-governmental organizations and academics from developed and developing countries back the need for access to environmentally-sound technologies as « public goods », as stated in their open letter on flexibilities for the least-developed countries under Article 66.1 of the TRIPS Agreement entitled : "NGO LETTER TO WTO MEMBERS CONCERNING A FURTHER EXTENSION OF THE LCD TRANSITION PERIOD UNDER ARTICLE 66.1 OF THE TRIPS AGREEMENT".

<sup>21</sup> Idem 4, p. 57.

<sup>22</sup> Ministerial Declaration on the TRIPS Agreement and Public Health, adopted on 14 November 2001 at the Fourth WTO Ministerial Conference in Doha, Qatar, document WT/MIN/(01)DEC/2.

- f. inclusion of a mechanism in the TRIPS Agreement to promote open and adaptable technology licensing for results obtained from research into climate change and ESTs financed through public funds.

In the light of the above points, the application of new flexibilities included in the TRIPS Agreement would be understood to be only in favour of the vulnerable developing countries and least developed countries.

18. It is thus now a question of the WTO, through the TRIPS Council, considering and discussing the concepts outlined above in order to identify the most appropriate mechanisms for effectively promoting and facilitating access by developing countries to technologies applicable for combating climate change and environmental harm. These flexibility criteria are directly related to the protection of human, animal or plant life,<sup>23</sup> owing to the developing and least developed countries' vulnerability to the adverse effects of climate change.

19. For the assertion that "intellectual property rights" guarantee the promotion of innovation and promote the timely and widespread dissemination of the industrial applications of such innovations is questionable.<sup>24</sup> What is clear, however, is that for many countries, especially the most vulnerable countries in which ESTs are most needed for adaptation and/or mitigation of climate change, it may plausibly be asserted that the patent system as currently designed can restrict the dissemination of such technologies through monopolization or abuse of exploitation rights by right holders or excessive additional costs resulting from payment of royalties for voluntary licensing of ESTs.

#### **4 FUTURE STEPS AND ACTIONS BY MEMBERS IN RELATION TO INTELLECTUAL PROPERTY AND CLIMATE CHANGE**

20. To summarize, the foregoing considerations establish a reference framework for launching a discussion and provide the opportunity for defining this issue in relation to the existing "serious environmental harm"<sup>25</sup> that the world ecosystem is currently suffering, in the light of scientific findings on the planet's capacity to effectively reverse the effects which the accumulation of CO<sub>2</sub> could have on the atmosphere, through the use of ecologically rational technologies by developing countries. While there is now some degree of international regulation of global environmental damage, as regards climate change, we do not yet have a binding and enforceable normative reference framework to identify unauthorized atmospheric emissions as environmental harm and sanction them accordingly.

21. It is important to recognize that although the question of climate change falls within the purview of the United Nations Framework Convention on Climate Change, it is closely linked with the WTO through the trade-related effects of response measures. Hence, it should be stressed that the crosscutting between technology transfer and intellectual property rights falls under the TRIPS Agreement, highlighting the need for cooperation and consistency in the actions of both international forums. We should therefore consider the elements outlined above with a view to eliminating or reducing restrictions or barriers to access to ESTs, and consequently facilitating their use by the vulnerable developing countries and least developed countries.

22. For this purpose the TRIPS Council could base its work on past experience that made it possible to achieve a broad consensus on issues of common interest going beyond purely economic considerations and focusing on world "public goods" based on the needs of "public interest" and the policy spaces for tackling situations of *force majeure*, as is the case of action to adapt to and/or mitigate the effects of climate change.

23. Finally, in emulating these positive practices we could consider adopting at the Bali Ministerial Conference a declaration in which Members would enshrine the principle that "nothing in the TRIPS Agreement can minimize or impair the flexibilities provided for in that Agreement, nor

<sup>23</sup> Agreement on Trade-Related Aspects of Intellectual Property Rights, Art. 27.2.

<sup>24</sup> Bernice Lee, Ilian Iliev and Felix Preston (2009), Who Owns Our Low Carbon Future? Intellectual Property and Energy Technologies, Chatham House Report, available at <http://www.chathamhouse.org.uk/publications/papers/view/-/id/775/> (accessed March 2, 2011).

<sup>25</sup> Idem.

prevent or limit Members taking measures they consider necessary to protect their population from the effects of climate change and to make use of "environmentally sound technologies".

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