



WTO OMC

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

**EXTRACT FROM MINUTES OF
MEETING OF THE
COUNCIL FOR TRADE-RELATED ASPECTS OF
INTELLECTUAL PROPERTY RIGHTS**

HELD IN THE CENTRE WILLIAM RAPPARD ON 11 JUNE 2014

**ITEM 11 CONTRIBUTION OF INTELLECTUAL PROPERTY TO FACILITATE THE TRANSFER
OF ENVIRONMENTALLY RATIONAL TECHNOLOGY**

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AGENDA ITEM 11: CONTRIBUTION OF INTELLECTUAL PROPERTY TO FACILITATE THE TRANSFER OF ENVIRONMENTALLY RATIONAL TECHNOLOGY

11.1 Ecuador

1.1. Ecuador once again wishes to thank other Members for participating in the consideration of the proposal on the "Contribution of Intellectual Property to Facilitate the Transfer of Environmentally Rational Technology", addressed at the Council's meetings in June and October 2013 and February 2014. At these meetings Ecuador emphasized that facilitating access to environmentally rational technology is critical to ensuring a transfer of technology that helps mitigate climate change, which is a phenomenon that affects all Members.

1.2. One of the reasons that prompts Ecuador to continue insisting that this issue should be addressed is that not one single Member has spoken out against the latent concern at the harmful effects of climate change. As we said before and emphasize again today, positions differ as to the way in which the problem should be tackled.

1.3. Ecuador shares the view that the rapid development and dissemination of technology for mitigation and adaptation purposes is a fundamental component of the global response to climate change, in which IPRs are a prerequisite for the transfer of technology.¹ It is accordingly necessary to prevent excessive protection from affecting the dissemination of such technology. Ecuador, as indeed other Members, has taken part in the Technology Needs Assessment Project for Climate Change, identifying the priority sectors for adaptation to and mitigation of climate change, which highlights a real interest on Ecuador's part in using ecologically rational technology as part of the development of these priority sectors. On the other hand, Ecuador has been working on national programmes aimed at promoting access to and the development of ecologically rational technology, including projects designed to encourage technology transfer.

1.4. It will be recalled that at the last meeting Ecuador requested Members to agree that the WTO and WIPO Secretariats should undertake a study of the new elements that could provide ideas and enrich the debate on this topic. Unfortunately, no agreement was reached.

1.5. In an entirely constructive spirit, Ecuador now proposes that a briefing session be held in which experts from the Intergovernmental Panel on Climate Change (IPCC) and the International Centre for Trade and Sustainable Development (ICTSD) would provide new elements to assist the Membership in further clarifying this problem. Both the IPCC and the ICTSD are fully competent and have all the necessary technical and scientific knowledge in respect of climate change mitigation mechanisms, and the information they would give us may prove an effective tool for decision-making in this Council. This briefing session could be held before the next meeting of the Council, with the WTO Secretariat providing the staff needed to arrange it.

1.6. With these considerations in mind, Ecuador emphasizes its intention to formulate new elements and include information that further supports the proposal submitted. It accordingly requests the Members of this Council to discuss the proposal in depth at its next meeting in October and to examine the new elements that Ecuador is currently working on. The proposal will incorporate any elements that may be added at the briefing session by the IPCC and ICTSD representatives suggested by Ecuador.

1.7. Ecuador hopes that its new suggestion will be endorsed by all Members, because, as we said before, this is an issue that closely concerns both developed and developing countries.

11.2 Chairman

1.8. I understand that Ecuador made two suggestions, first that an information session be organized prior to the October meeting, and secondly that there would be a discussion on the basis of a proposal which it will circulate for the next Council meeting.

¹ ICTSD: Programme on Innovation, Technology and Intellectual Property – Policy Brief No. 11, November 2011.

11.3 United States

1.9. We again thank Ecuador for sponsoring this agenda item, which provides an additional and important opportunity to discuss the positive relationship between IPRs and the environment, including but not limited to climate change.

1.10. This morning, we want to discuss success stories. Today, we will provide real world examples of how IPR protection can be a tool for promoting innovation and transfer of environmentally-friendly technologies. We have found a variety of inspiring and geographically diverse stories that add another dimension to this on-going dialogue.

1.11. The case studies we will describe today demonstrate the power of human ingenuity and the importance of innovative solutions to address global problems, such as energy conservation, environmental protection and climate change mitigation and adaptation.

1.12. These are the stories of hardworking scientists, engineers, and entrepreneurs, who have all championed the environment, and used IPRs as one among many tools to make a difference in peoples' lives – to contribute to the common good through technologies that provide sustainable and cleaner energy, reduce pollutants in water and soil and many other benefits. Of course, these are just a few examples. There are many more. But, we wanted to emphasize these role-model innovators in order to add a new dimension to what is already a multi-dimensional discussion of the numerous positive contributions of IPR to environmental technology innovation and transfer.

1.13. As delegations will recall, in past meetings of this Council under this item, we have discussed the economic data and related analysis in considerable detail supporting the position that IPR and green technology innovation and transfer are mutually re-enforcing. We note that we have yet to see data submitted by the sponsor of this item, or other Members that supports the sponsor's position, and look forward to Ecuador updating its paper in this regard.

1.14. In addition to data, we have discussed needs. Specifically, in October of 2013, we discussed the Technology Needs Assessments submitted under the United Nations Framework Convention on Climate Change. These TNAs submitted by 31 developing and least developed countries identified numerous non-IPR obstacles standing in the way of our joint goal of promoting innovative solutions to our shared climate imperative.

1.15. As a UNFCCC Technology Executive Committee report confirmed, very few of those TNAs even mentioned IPRs. And when IPR was mentioned in a few select cases, IPR was not identified among the priority issues to be addressed.

1.16. And turning from needs to solutions, in February of this year we discussed several mechanisms that facilitate green technology innovation and technology transfer that rely on IPR solutions to address environmental needs.

1.17. As we discussed, these mechanisms target both financial and non-financial obstacles to green technology innovation and transfer, and offer the opportunity to overcome several of the barriers identified in the UNFCCC TNAs, while respecting IPR. These mechanisms included the US Association of University Technology Managers or AUTM, including its Better World Project and Global Technology Portal, the US Department of Commerce's Environmental Solutions Exporters Portal, WIPO's Development Matchmaking Database and WIPO GREEN, and the Asia Development Bank's low-carbon technologies marketplace, which is funded by the UNFCCC Global Environment Facility.

1.18. So, today, we want to focus on successes. In particular, we will focus on three success stories from around the world, which underscore the truly global nature of innovation. While specific chapters of these success stories find their heroes achieving great things in India, Switzerland, Uganda and the United States, many of these stories await new chapters and new successes in many as-yet unknown locations.

1.19. The first two success stories are included in WIPO GREEN and its sustainable technology marketplace.

1.20. One story highlights Simpa Networks' Progressive Purchase Technology for Home Solar Systems. As the WIPO GREEN case study indicates, an estimated 1.3 billion people around the world do not have any access to electricity and additional 1 billion lack reliable electricity.

1.21. Simpa Networks has taken a significant step in responding to this troubling reality, and is doing so in an environmentally-sustainable and technologically cutting-edge manner. Simpa has developed an innovative Progressive Purchase technology that brings affordable solar energy to poor consumers. The technology consists of a combination of product-embedded hardware and cloud-based software. The hardware, called the "Simpa Regulator", is a tamper-proof device that is connected to a solar home system, or SHS. The Simpa Regulator turns the SHS on when payments are made and a code is entered, and locks the system temporarily when credits run out.

1.22. The Simpa Regulator works in conjunction with the "Simpa Revenue Management System", a centralized software solution in the cloud that is accessible by SMS or online and which manages payment processing and accounts settlement. Progressive Purchase technology was developed for the Indian market, where there is not currently an easy way to send money using mobile networks.

1.23. It takes between 1 and 3 years to pay off the system, at which point it unlocks permanently and produces solar energy to be used by the family for the rest of its 10-year life. Progressive Purchase hardware and software were developed by engineers in the United States and in India. First established in the United States, Simpa Networks is now also a registered Indian company, with offices in Bangalore. Simpa is currently selling Progressive Purchase across India in several states.

1.24. Simpa Networks has WIPO Patent Cooperation Treaty and US Patent and Trademark Office patent applications for the Progressive Purchase system are pending. These applications, together with essential know-how, have been important to investors and channel partners who invest and rely on Simpa's technology and processes.

1.25. In part because of its IP portfolio, Simpa Networks has been fully capitalized and is now scaling up sales and distribution. The company has already received over 100 requests for technology licenses, from all parts of the world. Simpa Networks has uploaded its Progressive Purchase technology to WIPO GREEN and is open to license, offer services, for a research and development collaboration or joint venture.

1.26. Our second story starts here in Switzerland. In fact, the technology transfer office of the University of Geneva as well as a start-up just down the lake in Lausanne are key players in an ingenious method of addressing water contamination without using chemicals.

1.27. In this instance, the need was to reduce contamination in water from pesticides used by farmers and gardeners. The environmentally-friendly technology solution achieves an efficient process for degrading pesticides by treating them with diluted water and cycling them through vertical green biobeds, consisting of mixtures of soil, organic material and plants.

1.28. This innovation was refined by a team at the University of Applied Sciences of Western Switzerland, which created the vertical biobed, by applying expertise in agronomy to develop a more effective filter. The Vertical Green Biobed – VG Biobed™ -- is a wall made of a steel structure containing a special substrate, which was developed to enhance the biodegradation efficiency of pollutants by microorganisms and the good development of plants.

1.29. The VG Biobed, which is based on an automated system with specialized software, can be used to treat more than 800 to 1000 liters of effluent per square meter of wall annually. As the VG Biobed does not use any chemicals, it is a green way to address the risk posed by pesticides to local water supplies. The various innovative features of the VG Biobed, including the automated monitoring mechanism and software, are IP-protected in Switzerland – including through trademark and patent protection. A patent application is also pending at the European Patent Office. The University of Applied Sciences of Western Switzerland owns the patents, which are managed by UNITEC, the technology transfer office of the University of Geneva.

1.30. A Swiss start-up – ecaVert Sàrl – which is based near Lausanne, has been granted an exclusive license to the Swiss patent, to engage in further research and development in order to refine, improve, and test the effectiveness of the technology.

1.31. Our third story was featured as part of the U.S. Association of University Technology Managers Better World Project.

1.32. Like so many inspirations for innovation, this story began with a specific problem to be solved – that is, how to keep fresh milk cold in environments where energy supplies and power sources are in short supply. The inventor is William Kisaalita, a Ph.D., professor and tissue engineer at the University of Georgia in the United States. He and others invented a milk cooler about the size of a dishwasher to assist farmers along Uganda's "cattle corridor," which a 50,000-square-mile area, that is home to more than 2.5 million dairy farms.

1.33. Farmers milk their cows, which produce an average of 50 liters of milk a day. During the day, farmers sell the milk to local vendors, who transport the milk to cooling stations. But those stations are closed at night, leaving farmers with no way to cool their milk at night. This meant that farmers often lost 40 percent of their revenue every single night. This is where Dr. Kisaalita and 15 of his undergraduate students entered the story. They invented a power-independent cooler for short-term milk storage. The cooler uses a vacuum system and a mineral called zeolite to help keep the milk cold.

1.34. Yet, although this was a great idea, with significant economic and environmental potential, delivering this benefit to Uganda farmers would not have been possible without financing. And this important achievement was recognized by a variety of contributors. Dr. Kisaalita received research funding from a number of sources, including the University of Georgia Research Foundation Inc., the World Bank, U.S. National Science Foundation, U.S. Department of Agriculture and U.S. Environmental Protection Agency.

1.35. In addition to funding, this project also benefitted greatly from technology transfer. We understand that the first prototype of the cooling technology was not sufficient to market successfully. To solve that problem, Dr. Kisaalita partnered with an unlikely ally – a German company called Cool-System KEG GmbH, which had designed a self-cooling keg for beer drinkers. Cool-System helped redesign Dr. Kisaalita's cooler and produced an improved configuration called CoolChurn. The keg-like cooler chills 15 liters of milk within three or four hours, and keeps it cold for a full day.

1.36. Here we see not only technological innovation responding to environmental challenges, but innovation actually driving entrepreneurship that is both environmentally-friendly as well as revenue-generating.

1.37. In conclusion, these compelling stories are only chapters in a narrative that spans many volumes. They demonstrate in a very real and practical way, the opportunities innovation present, when properly fostered and incubated.

1.38. As we have discussed, and will discuss in more detailed under the next agenda item, innovation is fragile and critical work. IPR provides much needed nourishment of and protection for fledgling ideas.

1.39. To deliver progressive purchase technology and solar home systems to Indian families as Simpa Networks does, IPR is critical. In order for vertical green biobeds to degrade pesticides effectively without chemicals, IPR is vital.

1.40. Likewise, for Dr. Kisaalita and Ugandan ranchers to cool milk without electricity, IPR is essential. Conversely, the lack of strong IPR protection and enforcement can have significant negative environmental impacts. Without such IPR protection, Simpa Networks may not have been capitalized and may have been subsequently prevented from delivering solar energy to India.

1.41. In the absence of adequate IPR protection, the University of Applied Sciences of Western Switzerland may not have been able to secure its partnership with ecaVert Sàrl and may not have

been able to achieve those significant technological refinements that allowed the vertical green biobed to be deployed in Switzerland and beyond.

1.42. Take effective IPR protection away, and Dr. Kisaalita may not have secured funding from so many diverse sources, or may never have been able to receive much needed technology transfer from a keg-maker in Germany.

1.43. But, today we are talking about successes stories. Their success, both economic and environmental, as well as the related technology transfer and uptake by consumers, is due in part because of IPRs.

1.44. As the WTO Members in this room consider their environment-related innovation policies and the role of IPR therein, it is critical to remember these and other success stories. They teach us that more environmental innovation does not require less IPR protection, as Ecuador suggests. In fact, the opposite is true.

1.45. Lastly, regarding Ecuador's proposals introduced today, given that we have just heard the proposals, we cannot support the proposals at this time and would need to consult in capital first.

11.4 Switzerland

1.46. Switzerland fully agrees with Ecuador in that it is vital to find practical solutions in the combat against the harmful effects of climate change. Switzerland firmly believes that the international IP system in combination with other, non-IP related measures, can make a positive impact on innovation and the transfer of such technologies. In our view, the IP system plays a key role in the promotion, encouragement and dissemination of green energy technologies and can thus make a positive contribution in the fight against climate change.

1.47. As regards the transfer of ESTs, my delegation would like to emphasize the important information function that the international IP system has. As already noted, when applying for a patent, the applicant must disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art. WTO Member States may also require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date (see Art. 29 of the TRIPS-Agreement).

1.48. The United Nations Environment Programme (UNEP) and the European Patent Office (EPO) noted in their joint report "Patents and Clean Energy Technologies in Africa" of 2013 that the global patent information system is successful in that it:

- fosters "the dissemination of technological information by legally obliging inventors to publicise their inventions";
- allows R&D activities to build on existing inventions;
- helps to prevent that investments are put into the development of technologies that already exist, thus preventing a waste of resources and duplication of efforts, and
- enables technology developers to protect their investments;
- sets a framework for technology transfer both at a local and global level through licensing.

1.49. We agree with Ecuador that the topic of disclosure is closely linked to the issue of patent quality. To ensure patent quality is first and foremost the task of examining national patent offices. At the international level, patent quality is a topic proposed for discussion at WIPO's Standing Committee on Patents (SCP). Switzerland supports discussing the issues of patent quality at the SCP. My delegation hopes that countries like Ecuador, who flag their concerns about patent quality in the WTO but so far object to discussing the topic at WIPO's SCP, will in the future lend their support to the proposed substantive work on patent quality at WIPO's SCP.

1.50. Further, my delegation would be interested to learn more from Ecuador and its national policies and measures it has adopted to address the "information gap" it refers to in general terms and with regard to the issue of disclosure more particularly? For instance, are Ecuador's companies

using the publicly available search tools of EPO such as the "Espacenet public database" with some 88 million published patent documents and the "Patent Translate"? These tools enable the retrieval of technological information and multilingual access of knowledge in fields such as green energy technologies and other areas. Is Ecuador aware of the "Green Growth Knowledge Platform" and "WIPO Green database" which bring together suppliers and consumers of green energy technologies?

1.51. Having emphasized now the information function and disclosure regime of the patent system, it is crystal clear to my delegation that the patent system on its own is not enough for tech transfer to successfully happen, whether in the area of EST or any other field of technology.

1.52. Additional ingredients need to be added to the invention such as know-how, i.e. the knowledge how to operate and maintain/service the transferred technology, as well as technical instruction and continuous training. These additional elements need to be carried out within a capacity-building framework between the technology transferor and the recipient. This means that a cooperative partnership between the inventor and/or licence holder and the recipient of the respective technologies must be set up since very often the recipient may not possess the necessary skills and infrastructure to successfully carry out or operate the transferred technology on his own. We therefore agree with what Chile said at the last TRIPS Council in February, namely, that a coercive approach will be counterproductive rather than beneficial for the technology transfer of ERT and would also have a chilling effect on investment into the development of new and better environmental technologies".

1.53. In this regard, we would like to draw Members attention to the UN Framework Convention on Climate Change (UNFCCC) which offers a framework in which capacity-building can take place and climate technology needs for developing countries be addressed. John Ouma-Mugabe, professor of science and innovation policy at the University of Pretoria Graduate School of Technology Management, South Africa, examined the functioning of the UNFCCC Framework from an African perspective. In a recent article, Prof. Ouma found that the UNFCCC's Technology Mechanism "can play a critical role in supporting African countries' efforts to engage in climate-change adaptation and mitigation. According to him, "most of these countries possess relatively limited capabilities for developing, acquiring, adopting and using existing and new climate technologies." Making use of the UNFCCC's Technology Mechanism would help them develop their scientific and technological capacities and help them design as well as implement modern policies for research and innovation. Prof. Ouma's conclusions may not apply to African countries only but also to other developing countries. My delegation would be interested to know whether Ecuador is making use of the strategic support services that the UNFCCC's Technology Mechanism offers regarding the development and transfer of technologies for climate change mitigation and adaptation?

1.54. Coming now to the questions of the global distribution and who owns innovative ERT. In his study, John Ouma-Mugabe finds that "some developing countries are sources of new climate change mitigation and adaptation technologies. For example, Brazil is the world's leader in biofuel research and development and related technological innovation activities. South Africa is one of the leaders in coal-to-synfuels technology development. In short, some developing countries are among the world leaders in the production of a wide range of climate-friendly technologies." He concludes that "encouraging bilateral and multilateral technology cooperation between African and Asian countries and between African and Latin American countries can help promote climate technology development, transfer, and acquisition."

1.55. This confirms that the transfer of ESTs is not so much a north-south issue as it is sometimes portrayed, since a number of developing countries are today major players in this field.

1.56. At the last TRIPS Council meetings, my delegation presented the "Green Goods Trade Initiative" which was launched in Davos, Switzerland, in January 2014. This encouraging cooperation initiative seeks to promote trade in green goods and to foster the transfer of green technologies so as to achieve the move towards a green economy. A group of 14 WTO Members, including Switzerland, has agreed to pursue a global free trade in environmental products by eliminating tariffs on a broad list of green goods like wind turbines and solar panels. The Group envisages a pact that is based on the most-favoured-nation rule and hopes that as many WTO Members as possible will join in so that in the end all WTO-Members can profit from better access to the goods and technologies that protect our environment. We invite Ecuador and other

developing countries to join this promising Green Goods Trade Initiative as one way of promoting trade and the transfer in green technologies.

1.57. Finally, on the two proposals made by Ecuador in today's intervention: Should Ecuador table this agenda item again at a next TRIPS Council meeting, Switzerland is ready to continue discussing and contribute substantively to the Council addressing the issue of IP and ERT.

1.58. As concerns Ecuador's proposal that the TRIPS Council or WTO Secretariat organize a dedicated event with external stakeholders on IP and ERT: my delegation would need more information and details on what Ecuador exactly envisages and what the contents and purpose of such an event would be, before my delegation could support such a proposal.

11.5 Cuba

1.59. Cuba thanks Ecuador for its contribution and supports continuing the debate on document IP/C/W/585. The issues it raises are highly relevant given their link with IPRs and especially patents, with the transfer of environmentally sound technologies.

1.60. Cuba underlines the need to hold the briefing proposed by Ecuador and to continue discussing the matter based on the update that will be submitted in October 2014.

11.6 Ecuador

1.61. We would like to thank the US and Switzerland for their statements, and Cuba for its support of our proposal. While we take note of all of the cases mentioned by the United States, in my statement I asked us to postpone the discussion until the Council's October meeting where we intend to put forward another document with new elements that are currently being studied in the capital by an inter-institutional group.

1.62. The information session that I suggested could be quite short, perhaps just two hours long, and should include experts from the IPCC, because they have scientific technological expertise that we could use in our proposal. I think the Council could take a decision on it with a need to hold consultations with capitals. At previous meetings, Ecuador asked for examples of green licences granted to developing countries and we heard a great list of examples, but in reality we are not being told what number of licences have been granted to developing countries, or if there have been figures or statistics that show that this transfer of technology is actually taking place. In spite of the number of international commitments to promote technology transfer related to climate change to developing countries, these transfers are not taking place at a sufficiently rapid pace in order to allow these countries to mitigate and adapt to the effects of climate change.

11.7 Japan

1.63. This delegation would like to thank Ecuador for proposing this agenda item again and welcomes the opportunity to discuss this important issue in this Council.

1.64. First of all, this delegation is convinced that the existing IP system does not constitute a barrier to technology transfer. Rather, this delegation firmly believes that the current international frameworks that have been set up to handle IPRs can provide a solid and stable foundation for technology transfer. IPRs play a key role in terms of attracting investors, facilitating entry into new markets and enabling effective collaborations.

1.65. In order to show this, this delegation would like to touch upon one case, which, we believe, is worth sharing with other Members.

1.66. Takino Filter, a Japanese SME, is trying to green Indonesia with its environmentally rationale technology. The company developed a soil protection sheet containing water-shedding polyester. With its water retention capability, the protection sheet can prevent soil erosion.

1.67. What is noteworthy about this exemplar case is that this company, expecting that their technology could contribute to addressing environmental issues in other countries prone to natural disasters, started a series of field research in Indonesia to understand and identify their unique

challenges while filing patent applications abroad. They have also been collaborating with Japanese universities, as well as being financed by the Development Bank of Japan by using their patents as collateral. In cooperation with the Japan International Cooperation Agency (JICA) and a university in Indonesia, this company has been studying how to adapt their technologies to local conditions.

1.68. This delegation agrees that climate change is one of the defining challenges which we have to address, and that environmentally rationale technology is essential for making a suitable response.

1.69. In this regard, the WIPO provides various tools and platforms that enable developing countries and LDCs to use environmentally rationale technology.

1.70. Among others, this delegation would like to make a brief remark regarding WIPO GREEN, which is an industry-driven initiative in the field of environmentally rationale technology, as the United States and Switzerland have already mentioned. Since its official launch last November, WIPO GREEN has been making steady progress. In the database, around 800 technologies are currently available for search by individuals or companies so that they can find and commercialize green technologies therein. Further development is expected for this initiative, accompanied by successful green technology transfers.

1.71. The Government of Japan has been providing various means of support in these areas through the WIPO/Japan Funds-in-Trust. For instance, the "Workshop on Climate Change and Innovation in Africa" held in Kenya last June was partially funded by the WIPO/Japan Funds-in-Trust. This Workshop served as a means for building relationships among concerned parties, including IP experts, technology providers, research and development organizations, and investment institutions. It also succeeded in raising awareness on effective ways to use IP and licensing.

1.72. Again, this delegation would like to emphasize that the IP system can provide an important basis for promoting and encouraging technology transfer. This delegation is also of the view that we need to carefully consider appropriate ways and means for implementing technology transfer, by conducting a detailed analysis of the situation in each country.

1.73. Finally, this delegation reserves the right to make comments on Ecuador's proposals.

11.8 Chile

1.74. Regarding this proposal, as we have said before, we agree with the need to make use of the TRIPS flexibilities regarding technologies that seek to reduce the harmful effects of climate change.

1.75. Likewise, we agree about the need to reduce barriers to access to the transfer of environmentally sound technologies.

1.76. We believe that there are already some TRIPS-consistent tools that could be used to achieve this goal, for example the negotiation of licences in relevant technological areas, and so we feel that the debate should focus on finding appropriate and efficient channels to apply these alternatives in practical terms. In the last session we cited a successful example of licence negotiation or patent pool, as is the Medicines Patent Pool (MPP) in the field of health.

1.77. Given the importance of the transfer of technology for countering the effects of climate change, we consider it pertinent to continue exploring the application of TRIPS flexibilities and tools in this matter, together with the different experiences that Members can share regarding the contribution of the IP system as a whole. We are therefore pleased that this topic is being kept on the Council's agenda for discussion and await the submission of Ecuador's new proposal.

11.9 European Union

1.78. A number of countries claim that IPRs constitute a barrier to green development. Nevertheless, only a minute proportion of patents for climate change mitigation technologies (CCMT) are actually filed in developing countries.

1.79. Ecuador has highlighted today the importance of bringing "new elements" to this important debate. The EU would like to present such new elements to inform the discussion of this matter. According to two recent studies conducted jointly by the European Patent Office (EPO) and the United Nations Environment Programme (UNEP), less than 1% of all patent applications relating to CCMT from the last 30 years (1980 to 2009) have been filed in Africa and less than 2% of worldwide CCMT patent applications are filed in Latin America². These studies highlight that Africa & Latin America have a huge untapped potential for generating clean energy. They also show that IPR does not hamper the use and dissemination of climate-related technologies in developing countries and cannot be seen as an obstacle to technology transfer. On the contrary, most of the more than 720.000 inventions for climate change mitigation technologies made in the last 30 years are part of these (developing and least-developed) countries' public domain and can be exploited without any IP related authorisation. Additionally, approximately 2 million patent documents relating to climate change mitigation are made available via the internet on offices' patent information services and can be freely used for R&D purposes³.

1.80. For instance – referring to the countries that took the floor today - in Ecuador were identified 8 patents for CCMTs, in Cuba 14, in Chile 6 and in El Salvador 3.

1.81. Therefore, filed patent rights are unlikely to be a major consideration in any decision to exploit CCMTs. Other factors, such as lack of financial resources, high investment costs, subsidies and tariffs are much greater barriers to accessing technology. According to a study conducted by the EPO, favourable market conditions and a favourable investment climate are also considered significantly attractive conditions in the decision to enter into licensing agreements⁴. Moreover, IPR do not inherently make green technologies more expensive, as R&D costs only account for a small proportion of costs compared to manufacturing expenses.

11.10 El Salvador

1.82. We would like to thank Ecuador for its contribution, which is a good basis for us to continue to explore existing flexibilities within the TRIPS Agreement, particularly with regard to the environmentally sound technologies. While we also begin an assessment process so as to bring greater flexibility to the patentability disciplines, these could be effective tools in order to adapt or effectively mitigate climate effects that developing country Members have adopted in their climate change strategies. We are interested in continuing to review this topic. We are looking forward to the new proposals that Ecuador has announced. We would also express our thanks to the delegate of the EU for the figures responding to the pending question on how many patents had been granted. In my country's case, the number given is three, which I will be checking with my national office. The number of patents does indeed show the interest in innovation that does exist for such technologies. We believe that an information session proposed by Ecuador would be very useful.

11.11 Canada

1.83. I would like to thank the delegation of Ecuador for bringing this issue to the Council's agenda once again. The patent regime is used as a driver furthering innovation, and many clean technology companies continue to rely on the patent regime as an important part of their business model. Canadian companies continue to be involved in developing sustainable technologies such as renewable energy and many of these companies depend on IP rights, financing and international engagement to succeed. Many factors impact the transfer of environmentally rational technology. An effective approach would be to rather focus on removing tariffs and non-tariff barriers, as for example, the on-going initiative on environmental goods. We would also like to highlight that there is a wide array of enabling factors such as domestic regulatory frameworks, foreign direct investment and international trade in general that promote environmentally sound technologies. An open non-discriminatory trade and investment regime, backed by national conditions that reward innovation are core requirements for technology transfer to occur. We would point to joint

² "Patents and clean energy technologies in Africa", EPO & UNEP, 2013 <http://www.epo.org/news-issues/issues/clean-energy/patents-africa.html> and ongoing study on "Patents and climate change mitigation technologies in Latin America" conducted by EPO & UNEP http://www.oecd.org/site/stipatents/2013%20PSDM%20Agenda_final.pdf

³ "Patents and clean energy technologies in Africa", EPO & UNEP, 2013

⁴ "Patents and clean energy: bridging the gap between evidence and policy", EPO & UNEP, 2010

ventures amongst company as an effective method of transferring technology on mutually agreed-upon terms.

1.84. We do not see the need for more regulation under the TRIPS Agreement for technology licensing. The development and promotion of environmentally sound technology can and should result from mutually agreeable arrangements between those involved in technology licensing. Moreover, several studies clearly demonstrate that IP rights are not an obstacle to technology transfer, and as others have highlighted in past meetings. Under the UNFCCC, the Technology Executive Committee Synthesis Report reveals that IP rights are not among the key barriers for technology transfer. Not a single Member has pointed to IP as an obstacle in this context. We thus fail to see the need for reviews of environmentally sound technologies under, for example, Article 31 of the TRIPS Agreement.

1.85. Any compulsory licensing of environmentally sound technologies would likely create long-term problems by reducing investment in this sector and, in turn, reduce the development of innovative technologies.

1.86. Finally, Canada is very concerned with assertions of special reduction of the term of protection under Article 33 of the TRIPS Agreement. IP protection encourages development of technologies that that public need and bring these innovations to the public realm in a timely manner.

11.12 Brazil

1.87. Brazil would like to thank the delegation of Ecuador for raising this important debate on climate change and technology transfer in the context of the IP system's contribution to adaptation and mitigation efforts. Brazil welcomes the debate and would like to present some considerations on the relationship between climate change and the TRIPS Agreement.

1.88. Brazil would like to recall the principle of common but differentiated responsibilities that has led the international community in the debates on the UNFCCC. We also understand that developing countries have an important role to play in fighting climate change.

1.89. The TRIPS Agreement is the result of negotiations that struck a delicate balance between the objectives of fostering innovation and promoting public interest in sectors of vital importance to socioeconomic and technological development. One basic principle of the Agreement is that the protection of IP should contribute not only to technological innovation, but also to the transfer and dissemination of technology, to the mutual benefit of producers and users of technological knowledge and in a conducive manner to the social and economic well-being. In this sense, the use of flexibilities provided for in the TRIPS Agreement is essential to safeguard that these objectives (social and economic well-being) will be reached. In the same line, the latest UN report on climate change *Climate Change 2014: Mitigation Of Climate Change* stated that although strong IP rights may force green technology developments and transfer in developed countries, there is a lack of evidence to support the strengthening of IP in developing countries. It also mentions that problems could arise if new, very broad patents were granted that impede the development of future, more efficient technologies.

1.90. Taking into account the large number of questions raised by Members on the subject, Brazil could go along with the proposal of Ecuador of revisiting their proposal in light of the discussions we have had in the TRIPS Council.

11.13 China

1.91. China thanks Ecuador for raising this important issue again at the TRIPS Council. In order to fight against climate change for the common interests of the whole world, the principle of common but differentiated responsibilities has been established as the basis for closer international cooperation. Due to developing Members' low development level and shortage of capital and technology of the developing members, developed country Members should provide support to developing Members.

1.92. IPRs are an important element concerning the development and utilization of the environmentally rational technologies. According to the TRIPS Agreement, the promotion of technological innovation and to the transfer and dissemination of the technology are the objectives of the protection and enforcement of IPRs, and the abuse of IPRs by right holders or the resort to practices which adversely affect the international transfer of technology should be prevented. So, IPRs should contribute to, but not become a barrier to, the transfer and dissemination of environmentally rational technologies.

1.93. Nothing in the TRIPS Agreement prevents its existing general flexibilities from its application to the environmentally rational technologies. We hope the discussions on this matter could further identify the problems and find the most appropriate solution for effectively promoting and facilitating developing country Members' access to environmentally rational technologies, and provide a better environment and policy space for the transfer and dissemination of environmentally rational technologies from developed country Members to developing country Members.

11.14 WIPO

1.94. WIPO would like to thank the TRIPS Council for the opportunity to present WIPO's contribution in the area of green technology transfer. We would first like to highlight our Platform WIPO GREEN in the area of Intellectual Property and Transfer of Environmentally Sensitive Technologies.

1.95. WIPO GREEN is an interactive marketplace that connects green technology providers and those seeking innovative solutions to combat environmental challenges. It is an entry point for WIPO services in facilitating green technology transfer. We work on two principal components. The first one is the WIPO GREEN DATABASE which is freely accessible and offers a broad listing of needs for products, processes, know how transfer, collaboration and finance. It also offers products, services and IP assets. The technologies and needs cover: Administrative, Design or Regulatory Aspects, Agriculture / Forestry, Alternative Energy Production, Energy Conservation, Transportation and Waste Management.

1.96. The second of the principal components is the WIPO GREEN NETWORK that connects green technology providers and seekers, catalyzes mutually beneficial commercial transactions and offers other resources and services.

1.97. WIPO GREEN Charter has provisions on WIPO GREEN's Mission and Principles. WIPO GREEN is governed by the WIPO Secretariat and the WIPO GREEN Advisory Board. WIPO GREEN Advisory Board is composed of Partners. To become partners, organizations will have to agree in writing to the WIPO GREEN Charter and specify their contributions.

1.98. To list the benefits of WIPO GREEN when you join the network: you can get connected with large and small companies, intergovernmental and non-governmental organizations, universities, innovators and governmental agencies from around the world; identify green technology needs in different regions; find solutions to your needs; promote technologies; partner with others to develop, adapt and/or commercialize technologies; and access WIPO and third party resources and services to accelerate transactions and enter new markets.

1.99. WIPO GREEN addresses the following challenges: climate change and sustainable development along with achieving socially inclusive growth, enhancing the environment for innovation while enabling more efficient adaptation and deployment of green solutions and helping the public and private sectors stimulate innovation and technology diffusion. Another challenge is to reach out to different parts of the world with our mission.

1.100. The WIPO GREEN Network connects green technology providers and seekers and aims to catalyze mutually beneficial commercial transactions. The WIPO GREEN network features services offered by WIPO and third parties such as arbitration and mediation, roster of consultants and facilitators, links to funding opportunities, learning & training opportunities, IP management resources, opportunities to network, case studies illustrating tech transfer and collaborations, newsletter and twitter feeds.

1.101. The partner list of WIPO GREEN is growing continuously and as of today we have 47 partners. On WIPO GREEN our current emphasis is to facilitate deal making, broaden types of technologies and needs available on the database, integration with other platforms (e.g. AUTM, SS-GATE, HKTDC, Danish Patent & Trademark Office, etc.) and raise the profile of WIPO GREEN amongst the green tech community.

1.102. I would also like to inform you briefly on another platform, WIPO Re:Search. We at the Global Challenges Division have created this platform for sharing IP assets and resources (catalyzing R&D on NTDs, malaria, and tuberculosis) and work "beyond patents" with compounds, technologies, know-how, data, research facilities, hosting arrangements, etc.). BVGH, as the partnership hub administrator, actively facilitates specific collaborations between WIPO Re:Search Members. The broad aims of this platform are stimulating and sharing innovation to catalyze tech transfer and collaborations, reduce transaction costs, build on comparative advantages of multi-stakeholder approaches, and facilitate access to WIPO and third party services (e.g. Arbitration & Mediation) and constructively contribute to the global policy discourse. This is based on the recognition that IP rights are tools, not objects or objectives *per se* and users typically seek access to technologies, not just patent rights.

1.103. To summarize: WIPO Re:Search, encourages relevant public and private sector entities to join as providers and/or users, encourage national IP offices (or other relevant public entities) to join as supporters and funds-in-trust for hosting and training/capacity building. On the other hand WIPO GREEN informs public and private sector entities to use the platform to advertise their technologies or their technology needs, encourage relevant public and private join as partners to further develop the network and encourage national IP offices and organizations with relevant patents and products to cross-link data records.

1.104. The activities carried out by the Global Challenges Division find their basis on the following instruments: Agreement between the United Nations and the World Intellectual Property Organization(1974) - Article 1 of this Agreement provides that "The United Nations recognizes the World Intellectual Property Organization (hereinafter called the " Organization ") as a specialized agency and as being responsible for taking appropriate action in accordance with its basic instrument, treaties and agreements administered by it, inter alia, for promoting creative intellectual activity and for facilitating the transfer of technology related to industrial property to the developing countries in order to accelerate economic, social and cultural development.....". Similarly, the Agreement between the World Intellectual Property Organization and the World Trade Organization was signed in 1995 for a mutually supportive relationship between WIPO and the WTO. The Agreement provides cooperation in three main areas, namely notification of, access to and translation of national laws and regulations, implementation of procedures for the protection of national emblems, and technical cooperation.

1.105. The United Nations Framework Convention on Climate Change (1992) by Article 4.5 requires that the developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention. In this process, the developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties. Other Parties and organizations in a position to do so may also assist in facilitating the transfer of such technologies.

1.106. Within WIPO's Mandate, we work to contribute to global policy discussions at the interface of IP and climate change as well as facilitate green technology transfer in accordance with the UNFCCC (art 4.5). Within this mandate, Strategic Goal VII of WIPO addresses IP in relation to global policy issues. Program 18's goal is the functioning platform for uptake and diffusion of green technologies.

1.107. The development of the health and climate related platforms are also in line with WIPO Development Agenda Recommendation 2 which is on promoting the transfer of technology to the benefit of developing countries.

1.108. In light of the above, the Global Challenges Division was established in 2010 to deal with climate change, public health and food security. Our objective is to emphasize the positive

relationship between innovation and IP, and show how IP can best be used for economic and social development. We participate as an observer at the UNFCCC meetings and organize side events on IP related issues. WIPO is also a forum for discussion - in July 2011 WIPO organized the Conference on Innovation and Climate Change in Geneva. We prepared a report on Global Challenges on Intellectual Property and the Transfer of Environmentally Sound Technologies.

1.109. Other activities outside the Global Challenges Division as far as technology transfer is concerned are the following: WIPO provides patent information. WIPO GOLD is a free public resource which provides a one-stop gateway to WIPO's global collections of searchable IP data. It aims to facilitate universal access to IP information. WIPO also has prepared patent landscape reports on climate change and energy on specific areas like the Report on Desalination Technologies and the Use of Alternative Energies for Desalination, Patent-based Technology Analysis Report – Alternative Energy Technology, Solar Cooking and Electronic waste recycling.

1.110. WIPO provides capacity building support for the management and transfer of green technologies, including assisting in drafting IP clauses in technology transfer agreements. Technology and Innovation Support Centers (TISC) are established to provide innovators in developing countries with access to locally based, high quality technology information services and other related services.

1.111. In addition to the above, WIPO recently became a CTC Network member. WIPO GREEN will act as the entry point for assistance requests from developing countries on IP and transfer of green technologies through CTCN. UNEP/CTCN is also a WIPO GREEN partner.

1.112. The Climate Technology Centre and Network (CTCN) is the operational arm of the UNFCCC Technology Mechanism and it is hosted and managed by UNEP in collaboration with UNIDO and with the support of 11 Centres of Excellence located in developing and developed countries. The CTCN promotes accelerated, diversified and scaled-up transfer of environmentally sound technologies for climate change mitigation and adaptation, in developing countries, in line with their sustainable development priorities. As defined by the Intergovernmental Panel on Climate Change (IPCC) climate technologies cover any piece of equipment, technique, practical knowledge or skills for performing a particular activity that can be used to face climate change.

1.113. There is also the WIPO Development Agenda, which was initiated to ensure that development considerations form an integral part of WIPO's work. The effective implementation of the Development Agenda, including the mainstreaming of its recommendations into our substantive programs, is a key priority. There are 6 different clusters of Development Agenda recommendations. One of the clusters is on Technology Transfer, Information and Communication Technologies (ICT) and Access to Knowledge.

1.114. The relevant Development Agenda recommendations for our activities can be listed as follows:

- DA recommendation 19. To initiate discussions on how, within WIPO's mandate, to further facilitate access to knowledge and technology for developing countries and LDCs to foster creativity and innovation and to strengthen such existing activities within WIPO.
- DA recommendation 25. To explore IP -related policies and initiatives necessary to promote the transfer and dissemination of technology, to the benefit of developing countries and to take appropriate measures to enable developing countries to fully understand and benefit from different provisions, pertaining to flexibilities provided for in international agreements, as appropriate
- DA Recommendation 28. To explore supportive IP -related policies and measures Member States, especially developed countries, could adopt for promoting transfer and dissemination of technology to developing countries. To include discussions on IP -related technology transfer issues within the mandate of an appropriate WIPO body.

11.15 Peru

1.115. Peru would like to thank the Secretariat of WIPO for their useful presentation on WIPO GREEN. We would urge WIPO to also report to us on the negotiations taking place at the IGC, since this would enrich the Council's discussion under items 5 and 6.

11.16 Brazil

1.116. I would just like to add my voice to that of my colleague from Peru in thanking the WIPO Secretariat for sharing information on its activities related to technology transfer. We regret that TRIPS Council Members could not hear how WIPO reports on the work undertaken under the IGC despite of the request of a diverse range of Members.

11.17 Ecuador

1.117. I would also like to thank the delegate from WIPO for the very important information that she conveyed to us. You will remember that Ecuador has asked at previous meetings for this kind of information. because WIPO, in light of the agreement with the WTO, could provide studies on technology transfer. This is something that we withdrew because we saw that the discussion needed to continue and we will reserve the right to bring that up in the future. This kind of study is really helpful in enriching the discussion.

11.18 India

1.118. I would also like to thank the WIPO Secretariat for briefing us on this particular issue. Of course, we feel that it is not a balanced presentation in the sense that there are two views on this particular issue and WIPO Secretariat has a certain view. It is in our interest to understand what WIPO is doing on green technologies. In this regard I would also like to support the statement made by Peru to have a similar briefing from WIPO on IGC developments.

11.19 China

1.119. China would like to echo the comments by Peru and Brazil. The introduction by the WIPO is beneficial for the discussion under this item. We also believe that it would be helpful if WIPO, as an observer to the TRIPS Council, could introduce the recent development of the ongoing work taken by the IGC.

11.20 El Salvador

1.120. We would also like to join in thanking WIPO for this very succinct presentation. I would also like to join Peru, Ecuador, India, China and others in suggesting that WIPO could perhaps in the future provide information on the work that is taking place within the IGC on traditional knowledge and genetic resources.

11.21 Bolivarian Republic of Venezuela

1.121. I am just taking the floor to support those who came before me, and also to ask through yourself that the work of this Council could be more balanced and whenever any Member asks for some kind of information from another organization they could come here and give a presentation without needing to open up a long discussion on whether it is possible or not, or with arguments such as the fact that WIPO has a permanent observer status, I think it would be transparent and fair to request that WIPO would also report on what is taking place at the IGC.

11.22 Nigeria, on behalf of the African Group

1.122. Let me thank WIPO for their presentation which was informative. Most developing countries that are trying to get access to some of these green technologies. Regarding the proposal coming from Peru, given that it is new, we would need some time to reflect on it.

11.23 Chairman

1.123. My impression is that we did not achieve convergence on Ecuador's proposal for an information session. We will have to continue discuss bilaterally outside this meeting to explore it and see whether we could bring it up for further discussions and solution. Another point is the desire to continue discussions on this subject at the Council's next meeting, which would also benefit from Ecuador's updated or revised paper.

11.24 United States

1.124. I just wanted to clarify that, as we indicated in the Council's discussion in February, we would welcome a new or revised paper that Ecuador might wish to submit. But we are not in a position at this time, like at the February meeting, to agree to a Council decision on the inclusion of that item on the agenda for the Council's next meeting. If Ecuador would like to submit a request under the normal working procedures of the Council to have that item on the agenda, we would certainly support it.

11.25 Ecuador

1.125. I would like to have it recorded that Ecuador will respect the working procedures and we will make an official request for the topic to be included in the next meeting.

11.26 Chairman

1.126. The last point is the suggestion that the WIPO Secretariat provide information to the Council on the on-going work of the WIPO IGC. Since it is has an observer status in the Council, WIPO Secretariat could request the floor whenever it deems necessary.
