# Center ق Global Development

Intellectual Property Rights and Climate Change: Principles for Innovation and Access to Low-Carbon Technology

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# CGD Notes

Disagreement surrounding IP rights threatens the longterm prospects of the climate change negotiations. Further development of necessary clean technologies requires a workable IP framework. As the United Nations Framework Convention on Climate Change (UNFCCC) meeting convenes this month in Copenhagen, Denmark, intellectual property (IP) rights remain a highly contentious issue that threatens the long-term prospects of these negotiations. Meaningful and sustainable reductions in global greenhouse gas emissions necessitate further innovation and deployment of low-carbon ("clean") technologies to avoid cuts in energy consumption that are politically infeasible and undermine economic development in developing countries.<sup>1</sup> Further development and dissemination of clean technologies requires a workable IP framework.

Views in the UNFCCC process, however, remain divided, largely along north-south lines, over whether IP rights are a significant potential barrier to the international transfer of clean technology or necessary to induce its development and effective deployment. Failure to reconcile these two positions could derail the negotiations and diminish chances for effective climate control. A new approach is needed.

This note will (1) describe the need for consensus on IP rights in the UNFCCC negotiations; (2) suggest principles for addressing the challenges and opportunities presented by IP in this context; and (3) put forward the broad outline of an approach that would facilitate the uptake of clean technologies, preserve incentives for privately financed innovation, and allow the Parties to address and move past the issue of IP rights in the UNFCCC negotiations.

# The Current Role of Intellectual Property Rights in the UNFCCC Negotiations

Intellectual property is not expressly referenced in UNFCCC or Kyoto Protocol provisions on transfer of technology. Nevertheless, concerns regarding the role of IP in international technology transfer, which rose to prominence in disputes over developing countries' access to patented medicines, have resurfaced in these UNFCCC negotiations.

These concerns have led to a standoff, depressingly familiar to those who follow international IP issues, in which developing countries, led by China and India, have argued that IP rights increase the cost of clean technologies and hinder their transfer to developing countries, while developed countries, such as the United States and Australia, have maintained that stronger protection for IP rights is necessary to induce the development of clean technologies and enable their diffusion and transfer to developing countries. Such disputes have bedeviled and derailed multilateral and bilateral trade and health discussions in the past and have the potential to do so again here. While there has been promising movement recently, with developing countries moving away somewhat from technology transfer guarantees and toward technology cooperation, protection of IP rights remains a sticking point.

Early research suggests that the role of IP rights in addressing climate change is more nuanced than the polarized UNFCCC negotiations would suggest. Enforcement of IP rights has not driven

The views expressed are those of the author and should not be attributed to the board of directors or funders of the Center for Global Development.

<sup>1.</sup> See Nancy Birdsall and Arvind Subramanian, "Energy Needs and Efficiency, Not Emissions: Re-framing the Climate Change Narrative," CGD Working Paper 187 (Center for Global Development, 2009), http://www cgdev.org/content/publications/detail/1423191.

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significant amounts of private research investment in clean technologies.<sup>2</sup> Patent and other IP rights alone do not guarantee effective demand for clean technologies any more than they do in the case of medicines for neglected diseases. Governments have needed to subsidize clean technology research and development heavily.

Conversely, patents do not appear to be barring innovation or transfers of technology to emerging markets. Technology diffusion is linked to economic growth and depends on the quality of governance, infrastructure, property rights, education, and other factors.<sup>3</sup> Protection for IP rights helps support marketbased transfers of patented technology to countries, including middle-income and emerging economies, which have significant capacity to reverse engineer, manufacture, and adapt technologies to local conditions.<sup>4</sup>

Indeed, in settings where the market conditions are favorable (e.g. in India, China, and Brazil) robust clean technology industries do exist-in many instances, employing foreign-licensed IP.<sup>5</sup> Furthermore, there is much follow-on innovation for platform technologies-solar photovoltaic cells, biofuels, and wind-power generators-which have long been off patent.<sup>6</sup> China holds a large proportion of the global patents on that follow-on innovation in solar energy and fuel cells.<sup>7</sup> Finally, meeting

emissions-reduction targets does not depend on the use of a particular clean technology but requires a portfolio of clean technologies. Competition within and between clean technology sectors has driven down IP licensing costs to be a small component of the costs of clean technology products.<sup>8</sup>

Also, IP rights are not responsible for the lack of transfer of clean technology to least developed countries, and improved IP protection alone would not encourage technology transfer to these markets. Few patents are filed in those countries. Transfer of such technologies is limited by insufficient expertise and capacity to produce and absorb technologies locally, insufficient market size to justify local production, insufficient resources and purchasing power to acquire innovative products, and lack of governance for effective technology transfer and investment.9

In sum, IP rights appear not to have been a significant incentive or barrier to clean technology innovation and transfer to date. That said, IP considerations might play a more significant role in the future development, diffusion, and dissemination of certain clean technologies in some settings. This is for several reasons.

First, the battleground in global warming is rapidly expanding beyond developed countries to major emitters in the developing world-both because their burgeoning production of greenhouse gas emissions and because of their growing capacity to shoulder the financial and political responsibility for these pollutants. Many of the least developed countries are still in the transition period under the WTO Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) but will, unless there is an extension of this period, be obliged to

<sup>2.</sup> See Keith Maskus, "Differentiated Intellectual Property Regimes for Deerkeim Maska, interestinates interestinate interestinate interestinates interesti which he argues that, given the difficulty in reverse engineering most clean technologies, patent protection will not be an ex ante inducement to R&D investment for those technologies, even though firms may register patents ex post to protect their investment; see also Richard Levin, "Appropriating Returns from Industrial Research and Development," Brookings Papers on Economic Activity 18(1987): 783-832.

<sup>3.</sup> World Bank, Global Economic Prospects 2008: Technology Diffusion in the Developing World [The International Bank for Reconstruction and Development / The World Bank , 2008). 4. Keith Maskus, "Encouraging International Technology Transfer," UNCTAD/

ICTSD Project on Intellectual Property Rights and Sustainable Development, Issue Paper No. 7 (ICTSD and UNCTAD, 2004).

John H. Barton, Intellectual Property and Access to Clean Energy Technologies in Developing Countries: An Analysis of Solar Photovoltaic Cells, Biofuel, and Wind Technologies (International Centre for Trade and Sustainable Development 2007). 6. Ibid.

<sup>7.</sup> Copenhagen Economics and the IPR Company, Are IPR a Barrier to Transfer of Climate Change Technology? Report to Directorate of Trade European Commission [The European Commission [DG Trade], 2009].

<sup>8.</sup> Barton, Intellectual Property.

<sup>9.</sup> Maskus, Differentiated IP Regimes; James Shepherd, "The Future of Technology Transfer under Multilateral Environmental Agreements," Environmental Law Review 10547(2007); see also World Bank, Global Economic Prospects 2008, which finds that that successful technology diffusion is linked to economic growth and depends on the quality of governance, infrastructure, property rights, education, and other factors

implement its minimum standards for IP protection on July 1, 2016.10

Second, many of the second-generation biofuels and synthetic fuels are likely to be replicable at low cost.<sup>11</sup> Thus, patent protection will be important to the creation of such fuels but may also limit their diffusion, particularly to countries with significant capacity to reverse engineer and manufacture these technologies.

Third, if a high price is set for carbon (either through cap-and-trade or carbon taxes), new precompetitive or platform clean technologies may emerge; patents and other IP rights could limit follow-on innovation of those technologies.

Fourth, changes in national environmental regulatory standards could disproportionately favor a particular, patented clean technology.

Fifth, if the UNFCCC process establishes joint or multilateral research projects on clean technology, it will be necessary to determine the ownership and management of any IP developed.

Even if the role that IP rights play in the future development and transfer of clean technologies is modest in scope, it may have an important impact. Significant and sustainable global reductions in greenhouse gas emissions require further innovation and deployment of clean technologies. Meeting consensus goals on global emissions reductions with current clean technology would require cuts in energy consumption that are politically infeasible and undermine economic development in developing countries.<sup>12</sup>

The UNFCCC negotiations must establish a robust framework in which science, innovation, and global diffusion and adaptation of new clean technologies can flourish. Effective management of IP can play an important part in that framework.

## **Designing an Approach to Intellectual Property Rights in the UNFCCC Process**

The goals for an agreement on IP rights in the UNFCCC should be

- (1) to establish a framework that harnesses IP. where relevant, to promote the diffusion and uptake of clean technologies while preserving incentives for privately financed innovation; and
- (2) to provide the assurances necessary to allow the Parties to address and be able to move beyond the issue of IP rights in climate change.

Achieving those goals will require an approach that reflects the following realities.

# No one structure for innovation or pathway for technology diffusion will satisfy all UNFCCC Parties' needs regarding climate change.

The role that IP plays in technology development and diffusion will vary significantly depending on the market for which the product is being developed, the nature of the technology, the stage at which the technology is in its development lifecycle, the entities involved along the value chain and their goals and relationships to one another, and the country in question. Technologies that address climate change are quite heterogeneous. The application of these technologies likewise will vary significantly depending on local conditions. Developing countries' needs are unlikely to remain static. These variables are difficult to predict.

Mandating particular technology sharing arrangements ex ante and across clean technologies is likely to be counterproductive. Voluntary technology sharing

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<sup>10.</sup> TRIPS Agreement, Art. 66.1. The TRIPS Agreement incorporates the United Nations definition of least developed countries, which currently includes Kashara Kanana Kashara Kashar Kashara Kas

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arrangements-open-licensing schemes, pools to share patents on publicly funded technologies, and funds to purchase IP and license it to developing countries at discounted rate-can be useful, but their utility is situation specific, depending on the nature and scope of the technologies covered, the nature and purpose of the arrangement, and the incentives for rights holders to participate.

Patent pools or joint licensing schemes, for instance, worked for audio and video technologies because rights holders had a strong common incentive to share technologies. Without a common incentive to share technologies, such pools do not work. Compelling participation in an international patent pool through compulsory licenses is impractical (compulsory licenses may only be issued by national governments and are national in scope) and may deter private investment and innovation. Patent pools are also not without risks; they can be anticompetitive and restrict innovation.

For similar reasons, it is not advisable to require that all IP generated pursuant to public, multilateral, or joint research funding result, in all cases, in IP dedicated to the public domain or jointly owned by funders. There may be circumstances where that IP has value as an incentive for private partners to develop, commercialize, or adapt technologies for developing countries or in creating a basis for controlling how the clean technology is distributed and used. Funders should retain the flexibility to harness that value where appropriate.

#### Broad commitments on international technology transfer do not work

There is a long, dismal history of commitments in trade and environmental agreements that exhort developed countries to transfer technology to developing countries.<sup>13</sup> Such commitments are difficult to implement and enforce and have done

little to improve the incentives or rate of technology diffusion and uptake.<sup>14</sup> For instance, Article 66.2 of the TRIPS Agreement requires developed countries' governments to provide incentives for their companies to transfer technology to least developed countries. This provision has resulted in little meaningful technology transfer to poor countries.

#### Solutions requiring changes in the international regulation of IP will not work in UNFCCC

Many of the current proposals on IP rights in the UNFCCC negotiations would require changes to the TRIPS Agreement. Such proposals include continued exemptions (beyond 2016) for least developed countries from obligations to patent climate-related technologies; banning patents on genetic resources and plant and animal varieties to the extent they are important for adaptation to climate change; and precluding patents altogether on clean technologies.

The merits of these particular proposals aside, it would be difficult to maintain that such changes to the international regulation of IP, once made, should not be extended to address concerns regarding developing countries' access to patented medicines and other patented technologies relevant for development. It is highly unlikely that developed countries would agree to any such changes given their heavy investment in IP. According to the U.S. Patent and Trademark Office, IP in the U.S. is now worth more than \$5 trillion and is responsible for the employment of 18 million U.S. workers.<sup>15</sup> More than two-thirds of the assets of U.S. publicly traded companies are now intangible. The recent recession and still precarious global economic situation will only make developed countries more vigilantly protect the IP rights of their companies.

<sup>13.</sup> Shepherd, "The Future of Technology Transfer."

<sup>14.</sup> Fredrick Abbott, "Innovation and Technology Transfer to Address Climate Change: Lessons from the Global Debate on Intellectual Property and Public Health," Intellectual Property and Sustainable Development Series Issue Paper 24 (International Centre for Trade and Sustainable Development, 2009). 15. David Kappos, Under Secretary of Commerce for Intellectual Property and Director of the U.S. Patent and Trademark Office, Remarks to APLA Annual Martine, October 16, 2000, serial black and Software for Intellectual Property and Director of the U.S. Patent and Trademark Office, Remarks to APLA Annual

Meeting, October 15, 2009, available at http://www.uspto.gov/news/ speeches/2009/2009oct16.jsp.

Also, as noted above, there is insufficient evidence to prove that changes in the international regulation of IP are necessary or useful for encouraging clean technology transfer.

# Solutions requiring agreement on compulsory licensing are unnecessary

International trade law is already fairly permissive with respect to compulsory licensing. TRIPS imposes conditions and procedural requirements, but not subject matter restrictions, on the issuance of compulsory licenses. In other words, the use of compulsory licensing is not limited to treatments for diseases such as HIV/AIDS, malaria, or tuberculosis; a member state may issue a compulsory license on any patent, including patents for clean technologies, provided that member state satisfies the conditions and procedural requirements of the TRIPS Agreement. These conditions and procedural requirements are not numerous and largely undefined.<sup>16</sup> Indeed, the only procedural step that a state must take before issuing such a license is to negotiate with the patent holder. There are exceptions to that prior negotiation requirement in instances of a "national emergency," "public noncommercial use," and upon the finding of anticompetitive behavior by a competent judicial authority. The remaining TRIPS requirements apply to the scope of the license itself (its being nonexclusive, non-assignable, and predominantly for use in the country that issued the license) and the remuneration that the state must pay the patent holder (it must be adequate and be subject to judicial review).

While a multilateral agreement calling for widespread use of compulsory licensing might have modest benefits increasing access, it would deter foreign direct investment and technology transfer in emerging markets where IP can support such transfer. Moreover, compulsory licenses cannot compel transfer of the know-how or knowledge necessary to adapt or employ clean technologies. Finally, compulsory licensing is not useful in the poorest countries where the technology is unpatented and the domestic capacity to produce the product is insufficient.

## Negotiation of a Doha-type Declaration on IP and Climate Change is, at best, a solution of last resort

In his speech to the UNFCCC Conference of the Parties in Bali, the Brazilian foreign minister proposed adopting as part of the UNFCCC agreement a statement on IP and climate change like the WTO Doha Declaration on TRIPS and Public Health. Other Parties have subsequently echoed this call.

The Doha Declaration recognizes the importance of IP protection for the development of health products as well as the concern regarding the potential effect of IP on the prices of those products. The declaration reaffirmed the right of WTO members to use the flexibilities in TRIPS to balance those considerations in achieving public health objectives. TRIPS establishes minimum standards of IP protection for its signatories, but it also affords countries substantial flexibilities with respect to compulsory licensing and in the application of competition law and patentability standards.

The utility of negotiating an analogous declaration of IP rights and climate change would be limited. The Doha Declaration itself was controversial and tortuous to negotiate. It has not itself resulted in widespread exercise of TRIPS flexibilities or reduced international pressure on the countries that seek to exercise them. It did not add new flexibilities to the TRIPS agreement. The Doha Declaration did, however, help reduce the pressure to renegotiate TRIPS in order to address the controversy over access to medicines. Accordingly, a similar approach may be useful as a strategy of last resort to resolve a stalemate over IP rights in the UNFCCC negotiation. Confirmation that TRIPS flexibilities apply to clean technologies may provide comfort to some Parties even if it does not result in any change to the international regulation of IP. Negotiation of a Doha-type Declaration on IP and Climate Change is, at best, a solution of last resort.

<sup>16.</sup> See TRIPS Agreement, Art. 31.

The UNFCCC process should focus on creating economic incentives and establishing an environment conducive to the innovation and transfer of clean technology. Such a declaration should include a formulation that recognizes the important benefits as well as the challenges presented by IP in international technology transfer. The Parties would need to resolve questions regarding the legal relationship of such a declaration, as adopted as part of the UNFCCC negotiation, to the WTO TRIPS agreement.<sup>17</sup>

# Principles of Access: A Proposal for Addressing IP in the UNFCCC Negotiations

Clean technology development and transfer will be not be driven by environmental benefits alone. The majority of clean technology R&D occurs in the private sector with the support of national governments. Those investments are motivated, in part, by industrial policy and international competitiveness considerations; national governments cannot be expected to perform a similar role internationally. Developed-country governments cannot mandate, as a matter of law or politics, that private companies supply technologies to developing countries.

The UNFCCC process should focus on creating economic incentives, facilitating market mechanisms, and establishing an environment conducive to the innovation, diffusion, and adaptation of clean technology to developing countries. Enabling policies are needed, including carbon pricing, effective emissions standards, and initiatives to improve the governance and absorptive capacity of developing countries. Financing mechanisms supporting the particular technology and adaptation needs of most poor and vulnerable countries are essential.

There is momentum to establish one or more multilateral or intergovernmental funds to support the development and delivery of clean technologies that specifically address the needs of developing countries. Multilateral mechanisms for transferring environmental technology to developing countries have had some success in this role—most notably, the Multilateral Fund of the Montreal Protocol.<sup>18</sup> Numerous multilateral financing mechanisms for controlling climate change—the Global Environmental Facility (GEF) and the World Bank Clean Technology Funds (CTFs)—already exist and could be developed further.

In the UNFCCC negotiations, many developingcountry Parties have proposed new multilateral financing mechanisms for clean technology cooperation, development, and transfer. Outside experts have likewise called for fiscal supports and other financing mechanisms to support clean technology development and transfer to developing countries.<sup>19</sup> Given the scale of greenhouse gas emissions and the need for clean technologies in developing countries, such public funds cannot be the sole vehicle for technology transfer.<sup>20</sup> If appropriately targeted to induce increased private investment and leveraged to support existing market mechanisms, a multilateral financing mechanism could make a significant contribution.

Effective management of IP can play an important part in that success. Existing multilateral financing mechanisms, however, provide little guidance on this subject. The Montreal Protocol Multilateral Fund, the GEF, and CTFs do not have frameworks or public policies in place for their management of IP;<sup>21</sup> technology development was not the focus of their

<sup>17.</sup> Abbott, "Innovation and Technology Transfer."

<sup>18.</sup> Shepherd, "The Future of Technology Transfer."

<sup>19.</sup> See for example Maskus, Differentiated IP Regimes, in which he calls for a global health emissionsreduction fund (GERF) that functions like the Global Fund to Fight AIDS, Tuberculosis and Malaria and creates incentives for developing solutions to the specific mitigation needs of developing countries. My colleagues David Wheeler and Matt Hoffman are developing a promising proposal to extend the concept of an Advance Market Commitment and other types of market-pull mechanisms to low-carbon technology promotion. See, e.g., Ruth Levine et al., Making Markets for Vaccines: Ideas to Action (Center for Global Development, 2005), in which the authors explore, in depth, how such an Advance Market Commitment would work to support the development of vaccines.

<sup>20.</sup> The International Energy Agency estimates that an additional global energy investment of \$9.3 trillion would required between 2008 and 2030 to keep atmospheric CO2 below 450 part per million. See Martin A. Weiss and Jeffrey Logan, The World Bank's Clean Technology Fund (CTF), Congressional Research Report for Congress (Congressional Research Service, 2008).

Research Report for Congress (Congressional Research Service, 2008). 21. Charles Ebinger, "Transferring Environmentally Sound Technologies in an Intellectual Property Friendly Framework," Energy Security Initiative Policy Brief 09-08 (Brookings Institution, 2009), describes the role of IP in the GEF and CTFs.

efforts and, as noted above, IP has played only a modest role to date in the creation and dissemination of clean technologies.<sup>22</sup> The treatment of IP in UNFCCC Parties' fund proposals has been polarized, with a few, such as Mexico's World Climate Change Fund (Green Fund), avoiding the subject entirely and many others, such as the China / G-77 proposal for a Multilateral Climate Fund, requiring significant changes in the international regulation of IP and liberal use of compulsory licensing. Other Parties have proposed more simply that, irrespective of the specific funding vehicle, multilateral investment in clean technology must lead to any resulting IP being dedicated to the public domain. For the reasons outlined above, proposals to ignore IP or to change the TRIPS agreement are unlikely to prevail, and blanket prescriptions for sharing clean technology IP are counterproductive. A new approach is needed.

The Parties, as part of the current negotiations, should agree to have new and existing UNFCCC-affiliated, multilateral funding mechanisms adopt "global access principles"—guidelines to govern these funds' management of IP for the purpose of incentivizing the development and delivery of clean technologies specific to the needs of developing countries. Publicprivate health-product development partnerships (PDPs), such as the Medicines for Malaria Venture, have successfully used similar public guidelines as a tool to provide transparency to potential collaborators and ensure a consistent and strategic approach to IP management.<sup>23</sup>

Universities and government IP managers, like the U.S. National Institutes of Health's Office of Technology Transfer, have similarly adopted "humanitarian licensing clauses" to govern their technology transfer activities.<sup>24</sup> These clauses promote access to health and agriculture product innovations among poor and disadvantaged groups, particularly in low-income countries.

In the UNFCCC context, each fund should develop its own global access principles to ensure they address the particular challenges, authorities, and mandate of that institution. Topics addressed in such access principles could include conditions for managing existing and developed IP, when and whether IP generated pursuant with fund resources should be subject to patent or dedicated to the public domain, whether the fund will insist on retaining exclusive licensing rights or ownership of IP, royalties, pricing to least developed countries, as well as transferability and exclusivity of program IP. These principles would govern the activities of that fund and be a condition of private and nonprofit entities receiving its resources. These principles would ensure a consistent and transparent approach to IP management. They would, thus, assure UNFCCC Parties and potential nonprofit and private-sector collaborators of the role that IP would play in the fund's development and deployment of future clean technologies to beneficiary developing countries.

Global access principles should set out strategic framework for IP management with private and public collaborators, but afford tactical flexibility and space for private partners to make a profit in for-profit markets—particularly, those in the developed world. Private-sector participation, resources, and know-how are critical to the success of multilateral efforts to support innovative clean technology development and uptake in the developing countries. IP management techniques can create incentives for private investment in technology development and deployment to developing countries. IP rights such as patents, trade secrets, copyright, plant The Parties should agree to have all UNFCCC-affiliated multilateral funding mechanisms adopt guidelines to govern their management of IP to incentivize the development and delivery of clean technologies specific to the needs of developing countries.

<sup>22.</sup> The International Centre for Trade and Sustainable Development, Climate Charge, Technology Transfer, and Intellectual Property Rights (ICTSD, 2008), notes that IP was not a significant factor in the activities of the Montreal Protocol's Multilateral Fund.

<sup>23.</sup> See, e.g., Medicines for Malaria Venture, "MMV and Intellectual Property Rights," (Medicines for Malaria Venture, 2007) available at http://www.mmv. org/IMG/pdf/MWV\_IP\_Statement\_FINAL\_2\_\_12june07\_.pdf.

<sup>24.</sup> See Amanda Brewster et al., "Facilitating Humanitarian Access to Pharmaceutical and Agricultural Innovation," *Innovation Strategy Today* 113):203–216.

Global access principles are not just tools which could usefully apply to any fund developed pursuant to the UNFCCC. They are also the best way to move the negotiations out of the current logjam on IP rights. breeders' rights—define the ownership, control, and responsibilities that drive technologies from discovery to delivery, establishing the roles, relationships, and incentives of the multitude of Parties that must provide investment, know-how, and services at each step of that value chain.

Contractual agreements for access, ownership, and exploitation of IP can provide the incentives, clarity, and predictability necessary for private-sector partners to invest their financing, technology, and know-how to develop and deliver a clean technology. Contractual territorial and geographic limitations on the exclusivity of IP can slice up markets to create differential pricing arrangements in which exclusive profitable markets cross-subsidize nonexclusive, less profitable ones. Licensing and collaboration agreements may include provisions such as march-in rights, interim development targets, or milestone payments to ensure the continued diligence of private-sector partners in developing clean technologies products, product quality, adequate supply, and accessibility.

The UNFCCC negotiations should set a deadline by which each UNFCCC-affiliated fund must develop and submit its global access principles for UNFCCC Conference of Parties (COP) approval. The COP should establish a committee of outside and independent IP, clean technology, and technology transfer experts to evaluate these global access principles, request revisions, if necessary, and approve them.

Once adopted, the global access principles of each fund should be made public. Each fund should be required to report back to the COP committee on a regular basis to ensure adequate implementation and adherence to its global access principles. This regular, centralized reporting mechanism would have the additional benefit of providing a means for UNFCCC funds to learn from the most successful IP management practices of other funds and to adapt their global access principles accordingly. Global access principles are not, however, just a tool which could usefully apply to any fund developed pursuant to the UNFCCC that supports clean technology development and transfer to developing countries. They are also the best way to move the UNFCCC negotiations out of its current logjam on IP rights.

This global access principles approach avoids the need for agreement in the UNFCCC negotiations on changes to the TRIPS Agreement or compulsory licensing. These principles would not govern all IP, just the IP developed with the resources of that multilateral fund. Private entities would not be required to collaborate or accept the resources of such funds. If, however, a private company chooses to do so, that collaboration or grant would be governed by the global access principles of that fund.

A multilateral fund is not a national government; it cannot issue compulsory licenses. The global access principles approach is also not mutually exclusive of a Doha-type declaration on IP and climate change, should the Parties agree one is necessary. On the other hand, given the significant potential resources of such UNFCCC funds, the effect of such global access principles would be significant. Accordingly, this approach could do more than just avoid the IP issue; it would help establish a framework that harnesses IP, where relevant, to promote the diffusion and uptake of clean technologies in developing countries while preserving incentives for privately financed innovation.