

STRENGTHENING COMPLEMENTARITIES BETWEEN TRADE,  
ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

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1. The Institute for Agriculture and Trade Policy (IATP) is pleased to present to this Symposium its views concerning the extent to which trade policies and sustainable development are complementary, with respect to biodiversity and genetic resources. IATP has been monitoring trade, biodiversity and intellectual property policies since 1986 and was the only U.S.-based non-governmental organization (NGO) at the signing of the Uruguay Round Agreements in Marrakesh in April, 1994.

2. We will comment on three issues: 1) the impact of intellectual property rights on food security and agricultural biodiversity, particularly in developing countries; 2) the sovereignty of WTO Members to develop and maintain national biodiversity regimes consistent with the *sui generis* provision of Article 27 of TRIPs; and 3) linkages between the WTO and the Convention on Biological Diversity.

3. Let us first review the situation of agricultural biodiversity. As the engineering of agriculture for trade in a very small number of crops is concentrated in ever fewer firms<sup>1</sup>, the biodiversity that is the natural resource basis of agriculture is eroding at an alarming rate. Of 30,000 varieties of edible plants, only three - rice, wheat and corn - provide half of humanity's global plant-derived energy intake.<sup>2</sup> Like all cultivated plants, these staple crops need to be reinvigorated through cross-breeding every 5 to 15 years as protection against swiftly evolving diseases and insects; cross-breeding also enhances crops with useful traits such as increased tolerance for drought and saline soils. However, since 1900 about three-quarters of the world's genetic diversity of domesticated crops has already been lost.<sup>3</sup> The upshot in the loss of *in situ* biodiversity and agricultural/economic diversification is an ever greater dependence on *ex situ* germplasm, two thirds of which is housed in industrialized country institutions and which no longer can evolve in nature, i.e. reinvigorate its own biodiversity.

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<sup>1</sup> "The Life Industry 1997: The Global Enterprises that Dominate Commercial Agriculture, Food and Health," RAFI COMMUNIQUE (Ottawa, Canada: Rural Advancement Foundation International, November-December 1997), 1-11.

<sup>2</sup> *The State of the World's Plant Genetic Resources for Food and Agriculture* (Rome, 1996: Food and Agriculture Organization Of The United Nations), 7-8.

<sup>3</sup> WITS WORLD ECOLOGY REPORT (Winter 1998).

4. Even in the case of gene banks located in developing countries, a large portion of *ex situ* genetic material is shared freely with private agribusiness. For example, as much as one-third of the annual outflow of tropical seeds from the Centro Internacional de Mejoramiento de Maiz y Trigo (CIMMYT) in Mexico ends up in the hands of US-based transnationals such as Pioneer Hi-Bred and Cargill.<sup>4</sup> Through this unregulated and unremunerated trade in the plant varieties of developing countries, this germplasm, together with the collective and traditional knowledge needed to cultivate those varieties, becomes the object of patent claims.

5. Two Australian seed companies recently applied for a twenty-year monopoly on two chickpea varieties taken from the International Crops Research Institute for Semi-Arid Tropics (ICRISAT), an internationally funded public research center based in Hyderabad, India. In the glare of negative publicity<sup>5</sup>, the Australian seed companies dropped their patent claims, but similar appropriations of developing countries' genetic resources and the work of developing country farmers occur regularly.<sup>6</sup> Shortly afterward, the Consultative Group on International Agricultural Research (CGIAR) - of which Mexico's CIMMYT and India's ICRISAT are members - called for a moratorium on the granting of intellectual property rights on plant germplasm held under the auspices of the United Nations Food and Agriculture Organization (FAO) in the collections of CGIAR agricultural research centres around the world.<sup>7</sup> In explaining the decision to call for a moratorium on the patenting of the CGIAR system's genetic material held in trust with the FAO, CGIAR chair Ismail Serageldin pointed to an issue with long term implications for food security and TRIPs: that the broad patent claims filed by corporations were hindering crop improvements as researchers were forbidden from communicating about their work due to patent-related confidentiality agreements: "Will we be able to do good science five or 10 years from now?" Dr. Serageldin asked, and then answered himself: "I'm not sure." He did express hopes that greater cooperation between public science research groups, such as CGIAR, and private corporations will resolve the impasse in patent related scientific non-communication.<sup>8</sup>

6. The need for reforms to the patent system is no longer a heresy. In the *Harvard Business Review*

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<sup>4</sup> "A Memo to EU Ministers to Oppose Directives on Biotech," *THIRD WORLD RESURGENCE*, No. 87/88 (November-December 1997), 3.

<sup>5</sup> "Recent Australian Claims to Indian and Iranian Chickpeas Countered by NGOs and ICRISAT," RAFI press release, 6 January 1998, <<http://www.rafi.ca>>.

<sup>6</sup> Danielle Knight, "Biopiracy: Beg, Borrow or Steal," *TERRAVIVA* (InterPress Service), January 27, 1998.

<sup>7</sup> "CGIAR Urges Halt to Granting of Intellectual Property Rights for Designated Plant Germplasm," CGIAR press release, 11 February 1998.

<sup>8</sup> "Researchers against gene patents," Reuters rpt. *THE WESTERN PRODUCER*, February 19, 1998.

last year, economist Lester Thurow of the Massachusetts Institute of Technology's Sloan School of Management wrote, " Fundamental shifts in technology and in the economic landscape are rapidly making the current system of intellectual property rights unworkable and ineffective... There are real differences in beliefs about what should be freely available in the public domain and what should be for sale in the private marketplace... What different countries want, need and should have in a system of intellectual property rights is very different, depending on their level of economic development. National systems, such as that of the United States, are not going to evolve into *de facto* world standards. The economic game of catch-up is not the game of keep ahead. Countries playing either game have the right to a world system that lets them succeed." Dr. Thurow argues in his conclusion for a differentiated patent system allowing inventors to choose among different levels of monopoly rights with varying costs, speeds of issuance, and dispute settlement parameters, in which the goals of both the public and the private sectors are balanced while the needs of both developed and developing countries are met.<sup>9</sup> Despite Dr. Thurow's arguments for diverse instruments for the protection of intellectual property rights, the U.S. government is exercising unilateral pressure to compel other governments to comply with the United States' preferences in the matter.

7. Let us now consider the sovereign rights of WTO Members to develop and maintain national biodiversity regimes consistent with the *sui generis* provision of Article 27 of TRIPs. While any negotiator present during the Uruguay Round talks will recall contention over the draft texts, there are no formal proceedings of the Uruguay Round to serve as interpretive guidelines reminding WTO Members of promises made and rationales given for various provisions during the upcoming review of TRIPs and other agreements. According to Bhagirath Lal Das, then the Permanent Representative of India to the WTO, "Developing countries had expected that threats of unilateral actions by developed countries would vanish with the new agreements of the WTO in operation. In fact during 1994 when they were seriously examining whether to approve these new agreements, the supporters of the agreements were citing the protection against unilateral actions as an important benefit to the developing countries flowing out of the new agreements. But subsequent events have belied these hopes and assurances. Threats of unilateral actions have continued persistently. It has put the credibility of the multilateral umbrella in grave doubt."<sup>10</sup>

8. Throughout 1997 and into 1998, the U.S. has repeatedly threatened to use Section 301 of its domestic trade law to exercise economic sanctions against Ecuador, if its Congress did not ratify intellectual property rights legislation desired by the United States. Ecuadorian citizens groups, on the other hand, pressured their Congress not to ratify. The intensely conflicting interests have led to conflicting legislative responses. First, last July, the Congress passed a biodiversity conservation and protection law against the bio-piracy - unregulated and unremunerated exploitation - that was stripping

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<sup>9</sup> Lester C. Thurow, "Needed: A New System of Intellectual Property Rights," HARVARD BUSINESS REVIEW (September-October 1997), 95-103.

<sup>10</sup> Cited in SUNS, SOUTH-NORTH DEVELOPMENT MONITOR, #4047 (Geneva: Third World Network, September 3, 1997).

Ecuador of its genetic resources.<sup>11</sup> Then, at the last possible moment on December 31, 1997, the Ecuadorian Department of Trade presented to Congress a bill for a Law on Intellectual Property coinciding almost entirely with what has been demanded by the United States.<sup>12</sup> Ecuador's present negotiator at the World Trade Organization, Patricio Izurieta Mora-Bowen, explained the Department of Trade's haste to present this bill as follows: "Ecuador reserved for itself [at the World Trade Organization] the legitimate right to take four years, as a developing country, to harmonize its intellectual property legislation. Without knowing this, in July 1997 the Government imposed something difficult to carry out: to draft [an intellectual property protection] bill and hope that everybody would understand it and discuss it."<sup>13</sup> In its initial response to this bill, a committee of the Congress called for yet another bill to protect the nation's "[b]iodiversity - e.g. one of the few areas in which the country can be competitive in the framework of globalization is precisely in the area of genetic resources."<sup>14</sup>

9. The United States has also exercised unilateral pressure on the Royal Thai Government (RTG), as it sought to draft legislation that would allow Thai healers to register traditional medicines in order to claim benefits. The U.S. Embassy in Bangkok wrote the RTG that it "believes that such a registration system could constitute a possible violation of TRIPs" and requested the RTG respond to eleven questions that assumed the burden of proof was Thailand's to show that it was not in violation of the U.S. interpretation of TRIPs.<sup>15</sup> In response to a letter to U.S. Secretary of State Madeleine Albright signed by more than 200 representatives of non-governmental organizations and researchers from around the world objecting to United States' intervention in the Thai case and in other national legislative processes of sovereign states<sup>16</sup>, the Under Secretary of State for Economic, Business and Agricultural Affairs Stuart Eizenstat characterized such inquiries as "the normal day to day exchange of information that ensures that

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<sup>11</sup> "EEUU amenaza con sanciones," HOY (Quito, Ecuador), May 16, 1997; Mario Gonzalez, "Controversial Patent Agreement with U.S. Up for Revision," INTERPRESS SERVICE, AUGUST 7, 1997 and Mario Osavo, "Crackdown on Eco-Pirates," INTERPRESS SERVICES, August 14, 1997. "Derecho de propiedad intelectual," LA HORA, January 15, 1998.

<sup>12</sup> "Inventos con la ley conciliadora," EL COMERCIO, January 12, 1998

<sup>13</sup> "Inventos: Ecuador no explica bien," EL COMERCIO, January 12, 1998.

<sup>14</sup> "Conclusiones del panel sobre el Acuerdo Bilateral y El Proyecto de Ley de Proteccion de la Propiedad Intelectual," Republica de Ecuador, Congreso Nacional, January 1998.

<sup>15</sup> Memo from First Secretary Robert A. Pollard, U.S. Embassy in Bangkok, Thailand, concerning draft legislation to protect Thai traditional medicine," April 21, 1997.

<sup>16</sup> Letter to US Secretary of State Madeleine Albright, June 30, 1997, available through IATP (fax: 612-870-4846, email: <iatp@iatp.org>).

governments thoroughly consider the implications of policy decisions on their international obligations."<sup>17</sup>

10. One of the difficulties with Under Secretary Eizenstat's line of reasoning is that the U.S. inquiry into the draft Thai legislation is not to remind the RTG of its international obligations; indeed, the Thai government is trying to meet Article Article 27 of the TRIPs Agreement with its legislative processes to protect Thai medicine. Rather, one might speculate that this U.S. initiative is part of a larger strategy to prevent the creation of *sui generis* intellectual property law until such time as the U.S. government and industry can revise TRIPs to their own liking. For example, after a meeting of the trade ministers of the United States, Canada, the European Union and Japan in September 1996, U.S. Trade Representative Charlene Barchefsky wrote that developing countries should not "hide behind special rules" such as the ten year phase-in periods for assuming TRIPs patent obligations.<sup>18</sup> In June 1997, the U.S. told Colombia that it would have to implement the TRIPs Agreement in full by June 1998, in advance of its obligation under the Uruguay Round, in order to negotiate a bilateral investment agreement with the U.S.<sup>19</sup> The U.S. has been quite clear about its intentions to create "TRIPs-plus"<sup>20</sup> obligations in future trade negotiations.

11. Apart from the phase-in periods, which do not affect developing countries until after the 1999 review, other obligations of the TRIPs Agreement likewise enable developing countries to proceed with the development of national regimes for protecting their genetic diversity from agribusiness and biopiracy. Under TRIPs Article 1.1, WTO Members are "free to determine the appropriate method of implementing the provisions of this Agreement within their own legal system and practice." Countries like Ecuador and Thailand developing their own biodiversity protection regimes need not apply patents, national treatment, or other WTO obligations to any national provisions falling outside the well-defined list of protectable subject matter in TRIPs. The United States has itself avoided such obligations on its semiconductor chips industry, by establishing a *sui generis* system with a stringent reciprocity clause rather than exercising national treatment. In Europe and Canada, the cultural rights of artists are protected through reciprocity agreements, instead of national treatment, and so too are the rights to data bases in Europe.<sup>21</sup>

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<sup>17</sup> Letter from Stuart E. Eizenstat, Under Secretary of State for Economic, Business and Agricultural Affairs, to IATP, August 14, 1997.

<sup>18</sup> "Quad Ministers Call On Advanced LDCs To Take On New Obligations," INSIDE U.S. TRADE, October 1, 1996.

<sup>19</sup> "Colombia Asked by U.S. to Fully Implement WTO IPR Pact to Get BIT," AMERICA'S TRADE, June 12, 1997.

<sup>20</sup> "U.S. Proposes NAFTA Plus IPR Protection for Region-Wide Trade Pacts," INSIDE U.S. TRADE, February 21, 1997.

<sup>21</sup> Carlos M. Correa, "TRIPs and the Protection of Community Rights," in *Signposts To Sui Generis Rights*, " GRAIN and BIOTHAI, December 1997.

Beneficiaries of these protections must thus reciprocate in kind, and are not entitled to benefit absolutely by virtue of WTO membership.

12. TRIPs Article 27 also allows for the exclusion of plants and animals and essentially biological processes for the production of plants and animals from patenting requirements, as well as inventions which threaten, when used commercially, public order or morality including threats to human, animal or plant life or health or the environment. But the TRIPs Agreement does not define an "invention," and there is nothing in it that obliges countries to adopt an expansive definition toward substances existing in nature such as natural genes, DNA sequences, DNA constructs and new transformed plants derived from them. Although the U.S. would undoubtedly like to eliminate these loopholes during the 1999 review, growing segments of the community in most countries are urging their governments not to buckle under U.S. diplomatic and economic pressure.

13. Finally, let us consider the Convention on Biological Diversity (CBD). The objectives of the CBD are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the use of genetic resources (Article 1). The CBD recognizes the sovereign right of all states to exploit their own resources and their responsibility to not cause damage outside of their jurisdiction (Article 3); the occurrence of such damage could be subject to liability and compensation (Article 14). The CBD promotes technology transfer as essential to its objectives, and stipulates that countries must cooperate to ensure that patents and other intellectual property rights are supportive of and do not run counter to these objectives (Article 16.)

14. As is well known, the U.S. has not to date ratified this multilateral environmental agreement, due in large part to opposition from agribusiness and the biotechnology industry. As one industry representative put it: "It seems to us highway robbery that a third world country should have the right to a protected invention just because it supplied a bug, or a plant or an animal in the first place . . . [the CBD] has been weighted in favor of developing nations."<sup>22</sup> Back in 1994, members of the U.S. Senate wrote then Senate Majority Leader George Mitchell requesting a delay in ratification until several concerns were met, among them: whether the CBD could impede U.S. access to germplasm and other genetic resources contained in international collection centers, how the CBD might promote the transfer of technology to developing countries, and if a possible biosafety protocol could require licensing for the transfer of biologically modified organisms.<sup>23</sup> In subsequent years, the U.S. Senate still declines to ratify the CBD, while the concerns of U.S. agribusiness and biotechnology firms are proving to be of some validity.

15. Issues of access to sovereign genetic resources have been debated heatedly by the parties to the CBD, with no resolution as yet, although CGIAR's recent call for a moratorium on patents to those resources held in trust by FAO may not be kindly regarded by private interests. At the Third Conference

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<sup>22</sup> Quoted in C.L. McDougall, "Intellectual Property Rights and the Biodiversity Convention: The Impact of GATT," FRIENDS OF THE EARTH (Bedfordshire, UK: February 1995), 13.

<sup>23</sup> Letter to Senator George Mitchell from 35 members of the U.S. Senate, August 5, 1994.

of the Parties (COP-3) in November 1996, governments generally deferred to negotiations at the FAO towards a multilateral system for access to *exsitu* agricultural resources<sup>24</sup>, while access to *insitu* resources is increasingly regulated according to national law.<sup>25</sup>

16. Little has been achieved, via the CBD, on technology transfer, other than repeated mention of its significance. At COP-3, the G-77 and China as well as South Africa proposed an inventory be made of transferable technology; the EU called for an international framework to facilitate technology transfer; Malaysia and the Philippines suggested existing vehicles – a so-called "Clearing House Mechanism" and the Global Environmental Facility – be developed for such purposes, while others recommended private sector programs and training. It seems little can be done in this regard, as long as the U.S. persists in its view, expressed as an "understanding" attached to the legislative bill for ratification in the U.S. of the CBD, that: "with respect to technology subject to patents and other intellectual property rights, Parties must ensure that any access to or transfer of technology that occurs recognizes and is consistent with the adequate and effective protection of intellectual property rights, and that article 16(5) does not alter this obligation." <sup>26</sup>

17. On the other hand, protocol for the protection of "biosafety" appears to be gaining significant headway under the CBD. While tough negotiations have not yet begun, an ad hoc working group of governmental delegations in February 1998 delineated a thorough range of options for assessing risks, including socio-economic impacts, and for managing risks, including provisions for liability and compensation in case of damages to biological diversity arising from trade in genetically modified organisms.<sup>27</sup> In light of the January 16 WTO Appellate Decision on beef hormones, in which scientific risk assessment can include "factors which are not susceptible to quantitative analysis" including "risks in human societies as they actually exist...in the real world where people live, work and die," the biosafety protocol may become an effective vehicle for protecting the vast agricultural biodiversity of developing countries from genetic pollution if not biopiracy.<sup>28</sup>

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<sup>24</sup> EARTH NEGOTIATIONS BULLETIN, "Report on the Third Session of the Conference to the Parties to the Convention on Biological Diversity" (Volume 9, Number 65, November 18, 1996.)

<sup>25</sup> See, for example, "Annex 1: Country Profiles of Current and Emerging Trends Related to Biodiversity" in *Signposts to Sui Generis Rights*, GRAIN and BIOTHAI (December 1997.)

<sup>26</sup> Report together with Minority Views to accompany Treaty Doc. 103-20 from Mr. Pell, Committee on Foreign Relations, July 11, 1994.

<sup>27</sup> Report of the Fourth meeting of the Open-Ended Ad Hoc Working Group on Biosafety, UNEP/CBD/BSWG/4/4 (Montreal, February 13, 1998), available on the Internet: <http://www.biodiv.org/biosafe/bswg4/FINALREP/4-4e.html> > .

<sup>28</sup> WTO Appellate Body Report, EC Measures concerning Meat and Meat Products (Hormones), (January 16, 1998), available on the Internet: <<http://www.wto.org/wto/dispute/hormab.pdf>> .

18. The CBD's stipulation that governments cooperate to ensure that patents and other intellectual property rights are supportive of and do not run counter to the objectives of conserving and using biological diversity sustainably, and properly sharing its benefits with others, is of particular importance. In the U.S., some farmers have agreed to burn their crops as one of several punishments for violating the terms of Monsanto's genetically altered seed contracts, signed at the time of purchase of patented seed.<sup>29</sup> The contracts prohibit farmers from saving seed year-to-year for replanting – a fundamental part of farming in most countries, except where industrialized agriculture policies have forced farmers to rely upon protected seed. Clearly, this is contrary to the protection of biodiversity and the sharing of its benefits. Furthermore, the opportunity to patent any genetically engineered organism, according to TRIPs Article 27, creates a great incentive for the agrichemical-biotechnology industry to develop and market these products despite the risks to biodiversity. Surely this, too, is contrary to the objectives of the CBD.

19. Whether and how the CBD and provisions of the Uruguay Round, the TRIPs Agreement in particular, can be harmonized is of great concern. At meetings of the WTO Committee on Trade and Environment, some governments have expressed concern that intellectual property rights for industry, as defined in TRIPs, will prevail over the traditional rights and rights holders recognized in the CBD. Other governments have noted a contradiction between the rights of patent holders and the goal of diffusing environmentally-friendly technologies, asking whether intellectual property rights could be regulated in order to promote technology transfer. Still others have observed that the TRIPs Agreement could have negative impacts on the conservation of biodiversity itself.<sup>30</sup> It is our contention that each of these concerns is valid. We hope our presentation here has given additional background with which governments can reconsider these arguments during the 1999 TRIPs review.

20. Given the apparently substantial impacts on farming communities and developing countries' socio-economic circumstances that will likely result from the strict application of any inflexible system of intellectual property rights (such as that derived from the U.S. model), those countries dependent upon agricultural biodiversity for their food security may wish to take a hard line in the upcoming TRIPs review. If the 1999 TRIPs review is unable to reconcile intellectual property protection with the protection of biological diversity, there may be a need to devise a new international process for settling disputes between trade and environmental agreements. Especially when the U.S. persists in the illegal use of sanctions to unilaterally enforce its extra-legal vision of intellectual property rights or, for that matter, carelessly announces its intention to set up a new Section 301 process specifically for the purpose of pressuring countries which, in the United States' opinion, "deny fair and equitable market access" to U.S. agribusiness exports<sup>31</sup>, why should other governments wait?

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<sup>29</sup> Greg Hillyer, PROGRESSIVE FARMER, January 1998.

<sup>30</sup> "WTO Trade and Environment Committee Discusses Market Access Issues, TRIPs and Eco-labelling," WTO TRADE AND ENVIRONMENT (Geneva, May 1, 1996)

<sup>31</sup> "Administration Endorses Broad Section 301 Law for Farm Exports," INSIDE US TRADE, November 7, 1997.