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The Global Intellectual Property Rights System

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The issues raised about the effects of national and international IPRs regimes on major social, economic and political objectives of States do not simply relate to legal, technical questions. They also concern aspects such as justice and equity, the processes of rule-making and regulation in this area, how to improve the participation of a broad range of interests and so ensure the balance sought, as well as the capacity of different parties to effectively take part. The increasingly global nature of the IPRs system has given even more urgency to these concerns. This chapter therefore seeks to explain the different components of the global architecture for IPRs, while highlighting its intricacies and the challenges faced by developing countries in coping with it.

The global architecture for IPRs

The global architecture of the IPRs regime has become increasingly complex,¹ and includes a diversity of multilateral agreements, international organizations, regional conventions and instruments,² and bilateral arrangements. In brief, the international law on intellectual property, in its

present form, consists of three types of agreement: multilateral treaties (see box 2.1), regional treaties or instruments, and bilateral treaties.³ Of these, the agreements that affect the greatest number of countries are the TRIPS Agreement and some of the multilateral treaties administered by WIPO. One of

The international law on intellectual property consists of three types of agreement

Box 2.1: Multilateral treaties

Most of these agreements are administered by WIPO, and are of three types:

1. **Standard-setting treaties**, which define agreed basic standards of protection for the different IPRs, and also typically require national treatment. These include the 1883 Paris Convention for the Protection of Industrial Property, the 1886 Berne Convention for the Protection of Literary and Artistic Works, the 1961 Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, the 1996 WIPO Copyright Treaty and the WIPO Performances and Phonograms Treaty. Important non-WIPO treaties of this kind include UNESCO's 1952 Universal Copyright Convention, the 1961 International Convention for the Protection of New Varieties of Plants (the UPOV Convention), and the WTO-administered TRIPS Agreement.
2. **Global protection system treaties**, which facilitate filing or registering of IPRs in more than one country. These include the 1970 Patent Cooperation Treaty, the 1891 Madrid Agreement Concerning the International Registration of Marks, and the 1958 Lisbon Agreement for the Protection of Appellations of Origin and their International Registration.
3. **Classification treaties**, which "organize information concerning inventions, trademarks and industrial designs into indexed, manageable structures for easy retrieval". These include the 1957 Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks, the 1968 Locarno Agreement Establishing an International Classification for Industrial Designs, and the 1971 Strasbourg Agreement Concerning the International Patent Classification.

WIPO's main objectives is "to promote the protection of intellectual property throughout the world through cooperation among States and, where appropriate, in collaboration with any other international organization".⁴ *Regional* agreements (or for that matter bilateral agreements) are also extremely important. First, their membership may be quite large, covering 20 or more countries. Second, it is possible that novel provisions in such agreements could subsequently be globalised through their incorporation into new multilateral agreements.⁵ Third, developing countries may be required to introduce provisions that go beyond what the TRIPS Agreement requires, such as extending patents to new kinds of subject matter and eliminating certain exceptions. Fourth, the most-favoured-nation (MFN)

treatment obligation (see below) obligates, in general, WTO Members to extend such "TRIPS-plus" provisions in regional agreements to all other WTO Members.⁶ Thus, regional standards might have a direct impact on the global IPRs architecture.⁷ Fifth, regional agreements might stipulate that contracting Parties should accede to certain international conventions. The above points might also apply to bilateral agreements.

The subsequent sections of this chapter deal, respectively, with the emergence of TRIPS, its central features, TRIPS-related developments in WTO, new treaty development and harmonization and the international law on plant genetic resources.

The emergence of TRIPS

Many developing countries have been ambivalent, if not hostile, to TRIPS from the beginning. Nonetheless, in 1986 developing country Parties to the General Agreement on Tariffs and Trade (GATT) accepted the Punta del Este Declaration, whose apparently quite limited aspirations were primarily to "clarify GATT provisions" relating to IPRs and counterfeit goods, and to "develop a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods."⁸ By 1989, the situation changed radically, with developing countries dropping their earlier resistance to a substantive agreement on IPRs that would ultimately form part of a package of agreements covering various trade issues such as agriculture, textiles and services.

On the face of it, this is puzzling, especially considering that a certain number of relatively industrialized developing countries had reformed their IP systems a decade earlier in order to facilitate imitation and capacity building by their domestic firms.⁹ Why did developing countries, many of which seem to be as dubious today as they were in 1986 about the trade-relatedness of IPRs, agree to abide by such a comprehensive agreement that sets high minimum standards of protection and enforcement?

There are two plausible ways to interpret this change of attitude. Both of these emphasize the important role of pro-IPR business associations and lobby groups as well as the threat of unilateral trade action against those countries not ready to upgrade their IP standards and enforcement procedures. The first is that developing countries were willing to accept the whole WTO package of agreements out of a conviction that the benefits of the other Uruguay Round Agreements would outweigh the economic and social costs of TRIPS. In short, TRIPS was considered a loss, but the WTO package was perceived as a net gain. Alternatively, developing countries might have considered TRIPS and the WTO Agreements as a whole to be unsatisfactory, but had little choice but to accept it since the carrot of improved access to developed country markets was irresistible, and the stick of strengthened trade barriers, and even unilateral sanctions, expected to result from a refusal to raise IPR standards, was to be avoided at all costs. Accordingly, the establishment of the WTO was at that time welcome because they expected that it would insulate them from the aggressive unilateralism being adopted by some developed countries.

TRIPS was considered a loss, but the WTO package was perceived as a net gain

“Trade-related” intellectual property rights: from WIPO to the GATT

The first attempt to frame IPRs as a trade-related issue was made by a group of trademark-holding firms organized as the Anti-Counterfeiting Coalition, which unsuccessfully lobbied for the inclusion of an anti-counterfeiting code in the 1973-1979 GATT Tokyo Round.¹⁰ Nonetheless, this initiative attracted the interest of the United States and the European Community in drafting such a code and in gaining support for doing so from a few other countries.

Following the lead set by the United States trademark industries, the copyright, patent and semiconductor industries also decided during the early 1980s to make the relative (and sometimes absolute) lack of effective IPR protection in overseas markets a trade-related issue, portraying it as a problem for the United States economy that the Government ought to resolve. Thus, by the time the contracting parties of the GATT met in Punta del Este to launch another trade round, a broad cross-sectoral alliance had been forged that had developed a coordinated strategy.

For those seeking high standards of IPR protection and enforcement throughout the world by way of the GATT, the strategy had three advantages. First, if successful it would globalise these standards much more rapidly than could be achieved through the WIPO-administered conventions. This is because it allowed for the possibility of including all the main IPRs in a single agreement (which could also incorporate, by reference, provisions of the major WIPO conventions), and, because once it was agreed that the Uruguay Round agreements had to be accepted as a package (i.e. a “single undertaking”), countries seeking membership of the WTO could not opt out of any one of them. Second, the GATT already had a dispute settlement mechanism. WIPO has no enforcement or dispute settlement mechanisms except through the treaties that it administers, and these treaties do not provide much recourse for countries concerned about the non-compliance of other parties. Third, the broad agenda of the Uruguay Round provided opportunities for linkage-bargain diplomacy that WIPO, with its exclusive focus on IPRs, did not allow. Hard bargaining by the United States, Europe and Japan on IPRs could thus be linked to concessions in such areas as textiles and agriculture, where exporting countries in the

developing world were eager to achieve favourable agreements.¹¹

The reason why the United States was predisposed to identifying the interests of these groups with its national interests is closely linked to a feeling held by many people during the 1980s that the country was losing its technological lead.¹² In large part this was due to increasing competition from other countries, especially Japan in various high-technology sectors, and low-wage, newly industrializing economies such as the Republic of Korea, Taiwan Province of China and (though not strictly an NIE) China. Many of these sectors had hitherto been dominated by the United States. This was generally felt to be attributable to unfair trade, investment and industrial policies, including intellectual property and technology licensing regulations. These allegedly reserved domestic markets for local firms, while helping those countries to export their goods in massive quantities to the United States, and, consequently, to enjoy sizeable trade surpluses. A related complaint was that those countries were condoning what was seen as blatant and widespread intellectual property piracy.

The support of European and Japanese business was necessary for any proposal on IPRs at Punta del Este to succeed. Consequently, United States business interests, under the umbrella of the Intellectual Property Committee (IPC), forged an alliance with their European and Japanese counterparts: the Union of Industrial and Employers’ Confederations of Europe (UNICE) and Keidanren.

Even so, it is not only developing country governments that were dissatisfied with TRIPS. Many firms, including the pharmaceutical transnationals, were unhappy about the compromises and concessions achieved by developing countries, such as the transition periods. Neither were the life science businesses satisfied with the compromises between the United States and Europe that, among other things, permitted exclusions on the patenting of plants and animals. And many developed countries would like TRIPS to be revised in order to better accommodate technological advances that have taken place since the conclusion of the Uruguay Round.¹³ It is not surprising, then, that the United States Congress has

The broad agenda of the Uruguay Round provided opportunities for linkage-bargain diplomacy

not renounced unilateral trade action and reserves the right of the United States Trade Representative (USTR) to initiate bilateral negotiations with

countries whose IPR standards may be TRIPS-compatible but nevertheless lower than those of the United States.¹⁴

What purpose does TRIPS serve?

While the original purpose of an agreement on IPRs proposed at the start of the Uruguay Round negotiations was to prevent the trade in “counterfeit goods” (see box 2.2 for a clarification of this and related terms), the resulting agreement turned out to be much more ambitious.¹⁵ Since it is difficult to judge the success of the Agreement or evaluate its

future prospects without a clear idea of its objectives, we seek here to identify the main objectives of the TRIPS Agreement. (See also annex A for key issues and salient features of the Agreement. For a detailed analysis and technical background, see the ongoing UNCTAD-ICTSD work on a Resource Book on TRIPS and Development.¹⁶)

Box 2.2: Copying IPR-protected goods and services: fair following or free-riding?¹⁷

The TRIPS Agreement provides the following definitions of counterfeit trademark goods and pirated copyright goods¹⁸:

1. “Counterfeit trademark goods” shall mean any goods, including packaging, bearing without authorization a trademark which is identical to the trademark validly registered in respect of such goods, or which cannot be distinguished in its essential aspects from such a trademark, and which thereby infringes the rights of the owner of the trademark in question under the law of the country of importation;
2. “Pirated copyright goods” shall mean any goods which are copies made without the consent of the right holder or person duly authorized by the right holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a copyright or a related right under the law of the country of importation.”

‘Counterfeiting’ and ‘piracy’ are normally considered to be both morally wrong and illegal. Yet in countries where products do not have IPR protection, either because such protection has not been applied for or because it is unavailable anyway, the production and domestic circulation of such goods by others do not constitute IPR infringements. Therefore if counterfeiting and piracy are illegal by definition, these words do not apply to such acts. Because of this situation, the copyright and trademark industries have sought to reduce opportunities for free-riding by eradicating the copying of valuable products and marks wherever it takes place. They have tried to do this by lobbying and pressuring governments to: (i) ensure that legal means are available so that as much copying as possible can be classed as illegal counterfeiting or piracy; (ii) to bind as many countries as possible to the legal obligation to provide such means; and (iii) to ensure that these laws are enforced.

However, free-riding or imitation is not necessarily wrong, and may even be creative in itself. Indeed, it may even be necessary, albeit within reasonable limits. According to Kim and Nelson, “imitation ranges from illegal duplicates of popular products to truly creative new products that are merely inspired by a pioneering brand”.¹⁹ Distinct imitations may include “knockoffs or clones, design copies, creative adaptations, technological leapfrogging, and adaptation to another industry”.²⁰ In fact, history shows that becoming good at imitating through, for example, reverse engineering, is a vital stage in the process of becoming innovative. Copying CDs and misappropriation of trademarks provides no scope at all for learning. Moreover, if it is too easy to profit from uncreative imitation, there is unlikely to be much incentive to innovate. But the situation may be quite different for the manufacture of products that requires the application of complex processes whose operation and adaptation to local conditions may need high levels of knowledge and skill.

The preamble to the TRIPS Agreement affirms the desire of member States “to tak[e] into account the need to promote effective and adequate protection of intellectual property rights”, while “recognizing the underlying public policy objectives of national systems for the protection of intellectual property, including developmental and technological objectives”. “Effective” implies enforceable. But whether IPR protection is “adequate” depends largely on what the systems of rights are supposed to achieve.

Dealing with counterfeiting is clearly considered as important, mainly because trade in counterfeit goods is what makes intellectual property most clearly trade-related. The preamble indicates that members recognize “the need for a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods”.

And yet the objectives, as stated in Article 7 (see box 2.3), make no reference to the eradication of counterfeiting. Rather, TRIPS is explicitly aimed at promoting public policy objectives, the nature of such objectives presumably being left to be determined by national governments, though technological development is given priority.

Evidently, TRIPS is not only supposed to establish effective legal remedies to prevent unauthorized copying, but also to stimulate technological advancement. TRIPS thus appears to give greater priority to economic development than to the eradication of the trade in counterfeit goods, which had been the original motive for wanting such an

National and most-favoured-nation treatment

By virtue of TRIPS Article 3, Members accept the principle of national treatment, i.e. that each country must treat nationals of other Members at least as well as it treats its own nationals. In other words, IPR protection and enforcement must be non-discriminatory as to the nationality of rights holders. This principle is in fact well established in international law, dating back to the nineteenth century.²¹

National treatment should be contrasted with the principle of reciprocity, according to which rights or concessions are available only to foreigners from countries that provide the same rights or concessions. Foreigners from other countries are unable to

avail themselves of protection according to this principle. The United States applied the principle of reciprocity rather than national treatment when it enacted its 1984 Semiconductor Chip Protection Act, as did the EU with its 1996 Directive on the Legal Protection of Databases.²² UPOV 1978 also contains a reciprocity provision, as opposed to UPOV 1991.²³ Application of the reciprocity principle to the IPRs covered by TRIPS is clearly contrary to the Agreement.

Box 2.3: Objectives of the TRIPS Agreement

Article 7 provides that the protection and enforcement of intellectual property right should:

- contribute to the promotion of technological innovation; and
- to the transfer and dissemination of technology

and be:

- to the mutual advantage of producers and users of technological knowledge;
- in a manner conducive to social and economic welfare; and
- to a balance of rights and obligations.

In addition, Article 8.1 allows Members implementing their IPR regulations to “adopt measures necessary to protect human health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development”. These measures are not obligatory, but again they highlight the socio-economic welfare implications of IPRs. On the other hand, the proviso that such measures be consistent with the provisions of TRIPS appears to narrow their possible scope quite considerably.

TRIPS is explicitly aimed at promoting public policy objectives

Application of the reciprocity principle to the IPRs covered by TRIPS is clearly contrary to the Agreement.

Article 4 upholds the principle of most favoured nation (MFN). This means that any concession granted by one Member to another must be accorded

*TRIPS is the first
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treaty that refers to
MFN*

to all other Members “immediately and unconditionally”. Thus if country A agrees to take special measures to prevent the copying of the products of a company from country B, but turns a blind eye when the company is from country C, D or E, such

inconsistency of treatment will violate this principle. Although this principle of international law has long been established in history, TRIPS is the first multilateral IPR treaty that refers to it.

Table 2.1: Main dates concerning the application of the TRIPS Agreement

| | |
|---|------------|
| Final Act of the results of the Uruguay Round | 14.04.1994 |
| Entry into force of the WTO Agreement | 01.01.1995 |
| Special arrangements for pharmaceuticals and agricultural chemical products not protected in a member country as of the date of entry into force of the Agreement (Article 70.8-9) | |
| a. Providing means for filing applications | 01.01.1995 |
| b. Criteria for patentability (to be applied as of the time that patent protection has become available in the country in question) | 01.01.1995 |
| c. Domestic legislation enabling the granting of exclusive marketing rights (EMRs) (EMRs to be granted once all conditions of Article 70.9 are met) | 01.01.1995 |
| Entry into force of TRIPS Agreement (Article 65.1) | 01.01.1996 |
| National treatment principles applicable to all countries | 01.01.1996 |
| Most-favoured-nation treatment applicable to all countries (Article 4) | 01.01.1996 |
| Review of issue of patentability of plants and animals other than micro-organisms (Article 27.3(b)) | 01.01.1999 |
| Transitional arrangement for developing countries (Article 65.2) | 01.01.2000 |
| Transitional arrangement for economies in transition, but only if conditions of Article 65.3 are met | 01.01.2000 |
| Review and amendment by Council for TRIPS (Article 71.1) | 2000 ⇒ ⇒ |
| Transitional arrangement for developing countries concerning product patent protection - to technologies not previously protected by product patents (Article 65.4) | 01.01.2005 |
| Transitional arrangements for least developed countries (Article 66.1) | 01.01.2006 |
| Transitional arrangements for least developed countries concerning patent protection for pharmaceutical products and legal protection of undisclosed test data submitted as a condition of approving the marketing of pharmaceuticals (Paragraph 7 of the Declaration on the TRIPS Agreement and Public Health) | 01.01.2016 |

Source: UNCTAD 1996:35 (with update) *op. cit.*

Transitional arrangements

All countries were to apply Articles 3 (National Treatment), 4 (Most-Favoured-Nation Treatment) and 5 (Multilateral Agreements on Acquisition or Maintenance of Protection) within one year of the entry into force of the WTO Agreement. But the developing countries and the former centrally-planned socialist States were allowed a period of five years to apply its full provisions (i.e. 1 January 2000). In addition, developing country members that were required to extend patent product protection to areas of technology not hitherto covered in their laws were permitted to delay such extension until 1

January 2005. The least developed countries were allowed until 1 January 2006 to apply TRIPS in full. Upon request to the Council for TRIPS, they may also be granted further extensions of this period. The 2001 Doha Declaration on the TRIPS Agreement and Public Health allows least developed countries to delay implementation of patent protection for pharmaceutical products, and legal protection of undisclosed test data submitted as a condition of approving the marketing of pharmaceuticals, until 1 January 2016 (box 4.2). (Table 2.1 shows the main dates for the implementation of the Agreement).

National enforcement and administration: challenges

TRIPS places much emphasis on enforcement. With respect to the general enforcement obligations, procedures should be available that “permit effective action against any act of infringement” of IPRs.²⁴ They must be fair, equitable and not unnecessarily complicated, costly or time-consuming.²⁵ The judicial authorities must be granted the power to require infringers to pay damages adequate to compensate the right holder for the injury suffered due to the infringement.²⁶ Members are required to provide for criminal procedures and penalties “at least in cases of wilful trademark counterfeiting or copyright piracy on a commercial scale”.²⁷ Remedies may include imprisonment and/or monetary fines. Such remedies may also be applied in other cases of IPR infringement if done “wilfully and on a commercial scale”. Members are not required to put in place a judicial system for enforcing IPRs separate from that for the enforcement of law in general.²⁸ Moreover, TRIPS creates no obligation to shift resources away from general law enforcement towards the enforcement of IPRs. Nonetheless, resource-poor countries may face a difficult dilemma when determining how to allocate their scarce resources.

The dynamic efficiencies of stronger and more effective IPR systems may more than make up for the administrative and enforcement costs. Whether or not this turns out to be true, the costs must be borne before the benefits accrue and, for least-

developed countries especially, these are likely to be particularly onerous. In addition, since regulators and courts in many developing countries are likely to lack experience in dealing with IPR-related matters, they will need financial and appropriate technical assistance.

Tables 2.2 and 2.3 should make this point apparent. The first table gives details of a few World Bank-financed capacity building projects including their costs. The second table provides a list of reforms needed by developing country WTO Members, along with the estimated costs involved.

One serious problem that needs to be addressed is the lack of a sufficient number of qualified examiners in many developing countries to handle a high volume of patent applications. Therefore, national patent offices accumulate large backlogs of unexamined applications, especially in the most advanced technological fields. A number of solutions are possible. One is to join with neighbouring countries to set up a regional patent registration office. Another is to conduct only cursory examinations or to opt for a registration system without any examinations. However, if this happened, the quality of issued patents could become very poor and it could lead to the granting of broad patents thus reducing the public domain.²⁹ A third possibility is to accept search and examination reports from other patent offices.

***Enforcement costs
must be borne
before the benefits
accrue***

Table 2.2: Sample of IPR-related projects of the World Bank, with costs

| Country | Project description | Cost |
|----------------------|---|----------------|
| Brazil, 1997-2002 | Train staff administering IP laws - component of Science and Technology Reform project | \$4.0 million |
| Indonesia, 1997-2003 | Improve IPR regulatory framework - component of Information Infrastructure Development project | \$14.7 million |
| Mexico, 1992-1996 | Establish agency to implement industrial property laws - component of Science and Technology Infrastructure project | \$32.1 million |

Source: Finger, JM and Schuler, P, "Implementation of Uruguay Round commitments: the development challenge", World Bank Development Research Group, Policy Research Working Paper 2215, Washington, DC, World Bank, October 1999.

Table 2.3: Estimates of IPR reform in selected developing countries

| Country | Reforms needed | Cost |
|-----------------------------|---|--|
| Bangladesh | Draft new laws, improve enforcement | \$250,000 one-time plus \$1.1 million annually |
| Chile | Draft new laws, train staff administering IP laws | \$718,000 one-time plus \$837,000 annually |
| Egypt | Train staff administering IP laws | \$1.8 million |
| India | Modernize patent office | \$5.9 million |
| United Republic of Tanzania | Draft new laws, develop enforcement capability | \$1.0-1.5 million |

Source: UNCTAD, 1996, *op.cit.*

TRIPS-related developments at the WTO

At the Doha Ministerial Conference in November 2001, the WTO Members agreed on the texts of three statements: the Ministerial Declaration, the Declaration on the TRIPS Agreement and Public Health (see chapter 6 and box 6.3), and the Decision on Implementation-related Issues and Concerns.³⁰ In the Ministerial Declaration, Members agreed "to negotiate the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits by the Fifth Session of the Ministerial Conference". With respect to the extension of the protection of geographical indications to products other than wines and spirits, it was agreed

that issues related to this matter would be addressed in the Council for TRIPS (see chapter 7 and box 7.4). As part of its work programme, including its reviews of Article 27.3(b) and of the implementation of the whole Agreement under Article 71.1, the Council was requested to examine the relationship between TRIPS and the CBD, and the protection of traditional knowledge and folklore (see chapter 8 for further discussion). In a brief section on trade and transfer of technology, there was agreement to establish a Working Group to examine "the relationship between trade and transfer of technology, and of any possible recommendations on

steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries." Clearly, this is an IPR-related issue.

The Decision on Implementation-related Issues and Concerns reaffirmed the mandatory nature of Article 66.2 ("Developed country Members shall provide incentives to enterprises and institutions in their territories for the purpose of promoting and encouraging technology transfer to least-developed country Members in order to enable them to create a sound and viable technological base"). The TRIPS Council was directed to establish "a mechanism for ensuring the monitoring and full implementation of the obligations in question".³¹

TRIPS is clearly unfinished business. Many developed countries would like to progressively raise the standards. Some developing countries accept the

Agreement as it is and seek to construe its rules as creatively as possible. Others would like TRIPS to be revised to lower the standards. On the one hand, developed countries have softened their stance and have decided to focus for the time being on implementation of the existing standards, rather than seeking to raise them further (though some of the countries have been actively promoting their preferred interpretations of these existing standards). And while many countries have failed to meet the built-in implementation deadlines, such as the requirement to provide protection for plant varieties by 2000, they are not being challenged at the WTO for this at present. On the other hand, a number of industrialized countries have responded by encouraging developing countries to raise their IPR standards *beyond* those required by TRIPS, *outside the WTO*, such as through bilateral treaties.³²

TRIPS is unfinished business

Beyond TRIPS: new developments and harmonization

IPRs are dynamic regulatory systems; the TRIPS Agreement is not set in stone, and discussions are taking place that may well lead to revisions of the text. Moreover, in addition to TRIPS, two other overlapping developments are affecting the evolution of substantive IPR law at the international and national levels. The first is the development of new IPR standards, ostensibly to accommodate technological advances. To this end, since TRIPS entered into force, a number of new multilateral IPR treaties

have been negotiated and adopted. The second is the harmonization of substantive IPR law. This is occurring through both bilateral treaties and through international and bilateral technical cooperation. Bilateral treaties between developed and developing countries tend to require standards of protection to be on the same level as the developed country party, and with fewer exceptions. With regard to international and bilateral technical cooperation, there are concerns that such cooperation does not fully take into account the development needs of the beneficiary countries or the flexibilities allowed to them under TRIPS.³³

Another emerging force for harmonization in the area of patent law is WIPO's draft Substantive Patent Law Treaty, which, if adopted, will make the patent systems of the world more like each other, using those of the technologically most advanced countries as the models.

The effects of the development of new IPR standards and harmonization overlap in the sense that both are raising the minimum IPR standards above the levels of the TRIPS Agreement and are therefore "TRIPS plus". The implications for developing countries are twofold. First, their options are being *rapidly* narrowed. Second, because they have to be aware of related developments taking place in a wide range of forums and know where their national interests lie with respect to each of these, the development of coherent, effective and sustainable policies and negotiating strategies on IPRs is becoming more difficult than ever before. Ensuring consistency between the positions adopted at the multilateral, regional and bilateral levels, as well as with national IPR regulations, is an enormous challenge for any country. In the case of developing countries and least developed countries, it might be impossible.

WIPO has provided a forum for the development of new IPR treaties

Since TRIPS entered into force, WIPO has provided a forum for the development of new IPR treaties. Most notable among these are the 1996 Internet treaties: the WIPO Copyright Treaty (WCT) and the WIPO Performers and Phonograms Treaty (WPPT). In 2000, the Patent Law Treaty (PLT) was also adopted at a Diplomatic Conference. The PLT was intended to harmonize certain patent procedures, but steered clear of matters relating to substantive patent law. However, WIPO has proposed a Substantive Patent Law Treaty (SPLT) that the organization's Standing Committee on the Law of Patents has been debating in 2003.

In terms of patent law, the draft Substantive Patent Law Treaty has the potential to harmonize national and regional patent laws almost completely.³⁴ While the SPLT initiative may never go much further than defining key terms, such as prior art, novelty and inventive step (which alone would considerably limit members' discretion as to the breadth of patent claims), a senior WIPO official has suggested as a future possibility "the establishment of basic principles regulating an ideal global patent system, according to which a patent granted in a civil procedure would have effect in different countries, and it would co-exist with existing national patent systems".³⁵ Obviously, any such system would have to provide agreed standards on the scope of patentable subject matter. And as history shows, what major industrialized countries agree upon, the rest of the world tends to accept.

The WIPO Internet treaties demonstrate the organization's continuing role in the development of new IPR norms, which, among other things, seek to accommodate new technological advances. They are also important in that the major trading partners have suggested that TRIPS be revised to incorporate the treaties, and are actively encouraging other countries to sign and ratify them through, for example, bilateral trade agreements containing such a requirement.³⁶

Away from the Geneva-based intergovernmental agencies, some bilateral and regional-level negotiations have been concluded and others are under way that aim to raise national IPR standards to the level of TRIPS, or even beyond. Some of the resulting agreements have required developing countries to promise they will introduce TRIPS standards before the expiry of the transitional periods, and even to introduce higher standards of protection than required by TRIPS.³⁷ Many such commitments are embedded in free trade agreements.

According to Drahos, there is a good reason why such agreements are becoming common.³⁸ This is because the developing countries are becoming more effective negotiators at the TRIPS Council and have successfully blocked moves to push standards beyond those that the present text of the Agreement requires. Therefore some developed country members may prefer bilateral or regional negotiations where developing country members lack comparable possibilities to build large coalitions.

The international law of plant genetic resources and IPRs

UPOV provides a framework for IPR protection of plant varieties

The global IPRs architecture would not be complete without reference to the UPOV Convention, the Convention on Biological Diversity (CBD) and the Treaty on Plant Genetic Resources of the Food and

Agriculture Organization (FAO). The remainder of this chapter deals with these instruments, and considers some of the potential opportunities and possible challenges posed by them.

The UPOV Convention

UPOV provides a framework for IPR protection of plant varieties. The Convention was signed in Paris in 1961 and entered into force in 1968. It was revised in 1972, 1978 and 1991.³⁹ The Convention established the International Union for the Protection of New

Varieties of Plants, which is based in Geneva and is associated with WIPO. As of 15 January 2003, there were 52 States Parties, of which about half were developing countries or economies in transition. The main reason for this trend is Article 27.3 (b) of TRIPS,

which requires WTO Members to provide protection for plant varieties by patents, a *sui generis* system, or a combination of these. But it is also true that some developing countries have agreed to join UPOV because bilateral free trade agreements with developed country trading partners require them to do so. TRIPS, however, does not refer to UPOV, but the UPOV system is the only *sui generis* system for plant

varieties that exists in international law. Alternative models have been developed, but, with rare exceptions,⁴⁰ these remain to be tested in the real world.⁴¹ It should be pointed out that there are two versions of the UPOV Convention: UPOV 1978 and UPOV 1991. (See box 2.4 for eligibility and scope of protection under UPOV.)

Box 2.4: Eligibility and scope of protection under UPOV

To be eligible for protection, the plant variety must be novel, distinct, stable, and uniform (in UPOV 1991) or homogeneous (in UPOV 1978). To be novel, the variety must not have been offered for sale or marketed, with the agreement of the breeder or his successor in title, in the country where the application for protection has been filed earlier than one year before that date, and (in general) earlier than four years in any other country. To be distinct, the variety must be distinguishable by one or more characteristics from any other variety whose existence is a matter of common knowledge. To be considered stable, the variety must remain true to its description after repeated reproduction or propagation.

UPOV 1978 defines the scope of protection as the breeder's right to authorize the following acts: "the production for purposes of commercial marketing; the offering for sale; and the marketing of the reproductive or vegetative propagating material, as such, of the variety". The Convention establishes minimum standards such that the breeder's prior authorization is required for at least the three acts mentioned above. UPOV 1991 extends the minimum period of protection from 15 years to 20 years. This later version is silent on the matter of double protection (i.e. both patents and plant breeders' rights), whereas the earlier version stated that "member states may not protect varieties by both patent and special rights". Even so, many countries expressly forbid the patenting of plant varieties, including most European countries.

According to both versions of the UPOV Convention, the breeder's right may be subject to two exceptions: the "breeders' exemption" and the "farmers' privilege". These exceptions are analysed below.

The right of breeders both to use protected varieties as an initial source of variation for the creation of new varieties and to market these varieties without authorization from the original breeder (the "breeders' exemption") is upheld in both the 1978 and 1991 versions. One difference is that the 1991 version states that the original breeder's right extends also to varieties, which are *essentially derived* from the protected one. The idea here is that breeders should not be able to acquire protection too easily for minor modifications of extant varieties. This provision is also intended to ensure that patent rights and PBRs operate in a harmonious fashion.

There is no reference in the 1978 version to the right of farmers to re-sow seed harvested from protected

varieties for their own use (often referred to as "farmers' privilege"). Thus countries that are members of the 1978 Convention are free, but not obliged, to uphold the farmers' privilege. In this respect, the 1991 version is more specific. Whereas the scope of the breeder's right includes production or reproduction and conditioning for the purpose of propagation,⁴² governments can use their discretion in deciding whether to uphold the farmers' privilege. Article 15 provides for an optional exception that allows parties "within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder, [to] restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the product of the harvest which they have obtained by planting, on their own holdings, the protected variety or a[n essentially derived] variety". In effect, this means that parties to UPOV 1991 can continue to uphold the farmers' privilege as long their national PBR system provides for it. If the national

PBR legislation of UPOV 1991 parties is silent about farmers' privilege, this presumably means there is

no such privilege and that farmers cannot re-sow harvested seed even on their own farms.

The Convention on Biological Diversity and the Conference of the Parties

The CBD, which entered into force in 1993,⁴³ has as its three objectives "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources". Intellectual property rights, and particularly patents, are considered to be most relevant to the third of these objectives, that of fair and equitable benefit sharing. The TRIPS Agreement, concluded after the entry into force of the CBD, does not require the establishment of any mechanisms to ensure fair and equitable benefit sharing with States and the holders of traditional knowledge.

The most important parts of the Convention here are Articles 15 and 8(j). Article 15 recognizes the sovereign rights of States over their natural resources, and their authority to determine access to genetic resources, and that access, where granted, shall be on mutually agreed terms and subject to prior informed consent of the provider party. Article 8(j) requires parties to "respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices."

Since there is no reference in the TRIPS Agreement to the CBD requirements of prior informed consent or encouragement of benefit sharing, industrialized countries that provide for the patenting of genetic resources usually grant such patents without examining the origin of the genetic material, the existence of prior informed consent on the part of indigenous communities, or whether the patentee is committed to sharing the commercial benefits with the provider of the genetic material. In addition, IPRs may inhibit, due to their exclusiveness, "appropriate access" to genetic resources, which is one of the CBD's objectives.⁴⁴ Therefore, the question of

how to interpret the relationship between the TRIPS Agreement and the CBD has been the source of considerable controversy in the TRIPS Council.⁴⁵

In the CBD, intellectual property is explicitly referred to only in the context of technology transfer, which is supposed to be one of the main kinds of benefit for provider countries to receive.⁴⁶ Article 16 on access to and transfer of technology requires Parties to the Convention to undertake to provide and/or facilitate access and transfer of technologies to other Parties under fair and most favourable terms. The only technology referred to is biotechnology, but Article 16 is concerned with any technologies "that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment". Recognizing that technologies are sometimes subject to patents and other IPRs, access to such technologies must be "on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights".⁴⁷ Clearly this is nothing for the life science industries to feel too concerned about. Indeed, the clause beginning "adequate and effective protection" was specifically added to establish a link with the draft TRIPS Agreement, which also used this language, as did the final version.

Article 16.5 is a little more controversial, requiring the Parties to cooperate to ensure that patents and other IPRs "are supportive of and do not run counter to" the CBD's objectives. This reflects the profound disagreement during the negotiations between those who believed that IPRs conflict with the CBD's objectives and others that saw no contradiction. While the language does not seem particularly threatening, life-science firms in the United States were, nonetheless, unhappy with the CBD's coverage of IPRs, and with the Convention more generally, and persuaded the Government that it was not in the United States' best interests to sign it. Although the United States did so a few years later, it remains one of the few countries in the world not to have ratified it.⁴⁸

The relationship between the TRIPS Agreement and the CBD has been the source of considerable controversy

To review implementation of the CBD, the Conference of the Parties (composed of all Contracting Parties) meets periodically (usually biannually). IPRs are most frequently discussed in deliberations on such topics as access to genetic resources, benefit sharing, and the knowledge innovations and practices of indigenous and local communities, and not so much with regard to transfer of technology.

At the Sixth Meeting of the Conference of the Parties, which took place in The Hague in May 2002, the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization were officially adopted. The Guidelines, which are intended to be used when developing and drafting legislative, administrative or policy measures on access and benefit sharing (ABS) and contracts, have a number of provisions relating

to IPRs. They suggest to Parties with genetic resource users under their jurisdiction to consider adopting “measures to encourage the disclosure of the country of origin of the genetic resources and of the origin of traditional knowledge, innovations and practices of indigenous and local communities in applications for intellectual property rights”.⁴⁹ As a means of implementing the CBD provision that benefit sharing be upon mutually agreed terms, two elements to be considered as guiding parameters in contracts and as basic requirements for mutually agreed terms are that “provision for the use of intellectual property rights include joint research, obligation to implement rights on inventions obtained and to provide licences by common consent”, and “the possibility of joint ownership of intellectual property rights according to the degree of contribution”.^{50 51}

The Food and Agriculture Organization (FAO) and the International Treaty on Plant Genetic Resources for Food and Agriculture

During the 1980s the FAO became the principle battleground of what came to be known as “the seed wars”.⁵² The main bone of contention was that the developed countries were allegedly abusing the free exchange principle. The main criticisms were, first, that most of the world base-crop collections were held in the developed world even though most of the accessions had come from the developing world. Second, while folk varieties were treated as being the common heritage of humankind, plant breeders in the developed countries were securing IPR protection for their own varieties.

In 1983, the FAO Commission on Plant Genetic Resources (CPGR) was created to provide a forum where governments could meet for discussion, and monitor the non-binding agreement known as the International Undertaking on Plant Genetic Resources (the Undertaking), whose objectives were “to ensure the safe conservation and promote the unrestricted availability and sustainable utilization of plant genetic resources for present and future generations, by providing a flexible framework for sharing the benefits and burdens.”

The “Farmers’ Rights” concept was included in the Undertaking from 1989 - in response to the developed countries’ insistence on excluding IPR-protected plant varieties from application of the

common heritage principle.⁵³ In this context, it should be noted that the term “Farmers’ Rights” has to be distinguished from “farmers’ privilege”. The latter is a clearly defined (cf. Art. 15(2) UPOV 1991) exception to the breeders’ exclusive right. “Farmers’ Rights” is not an IPR as such, but it is frequently suggested as a principle that could be implemented as a compensation or benefit-sharing mechanism. Officially “Farmers’ Rights” is an attempt to acknowledge “the contribution farmers have made to the conservation and development of plant genetic resources, which constitute the basis of plant production throughout the world”.⁵⁴

In 1993, the CPGR (Resolution 93/1) called for the Undertaking to be revised in harmony with the CBD. To this end, the Commission, now called the Commission on Genetic Resources for Food and Agriculture (CGRFA), held a series of negotiations to revise the International Undertaking. Protracted discussions progressed, albeit slowly, at several extraordinary sessions of the CGRFA, and at a series of contact group meetings convened by the Chair of the CGRFA. These negotiations were finally concluded in November 2001, when a text for the revised Undertaking was adopted and then converted into a legally binding treaty (see box 7.3 on the FAO International Treaty).⁵⁵

The FAO seeks to promote access and benefit sharing with respect to genetic resources

As to the relationship of the FAO Treaty with the TRIPS Agreement, and in particular Article 27.3(b), there is some potential for conflict. This is due to the fact that the TRIPS Agreement legitimises intellectual property protection and thus the monopolization of genetic resources. By contrast, it is one of the objectives of the FAO Treaty to promote facilitated access to plant genetic resources covered by the Treaty (Article 10.2). The Treaty also recognizes national sovereignty over those resources (Article 10.1). This raises the question whether individuals or companies may claim intellectual property rights that limit the facilitated access to the plant genetic resources covered by the FAO Treaty.⁵⁶

With regard to the CBD, the FAO Treaty has similar objectives. It also seeks to promote access and

benefit sharing with respect to genetic resources.⁵⁷

The main difference between the two agreements is their way of realizing this objective. While the CBD places considerable emphasis on the sovereignty of each State over its own genetic resources and places the responsibility for facilitating access to those resources on each Contracting Party,⁵⁸ thus suggesting *bilateral* arrangements, the FAO Treaty refers to a *multilateral* system for access facilitation and benefit sharing.⁵⁹ This is done in recognition of the fact that even large countries are not entirely self-sufficient in plant genetic resources for food and agriculture,⁶⁰ and that a multilateral system of access and benefit sharing would reduce costs and enlarge the pool of available genetic resources.

* * *

In brief, as stated at the outset, the emerging global architecture for IPRs has become increasingly complex and thus posing an enormous challenge for any country. With respect to developing countries, the Report of the Commission on Intellectual Property Rights (see box 1.2, above) has well summarized the situation in the following terms:

"[...] our conclusions place a responsibility on the international community to assess whether the mechanisms in place for negotiating intellectual property standards, both multilaterally and bilaterally, take sufficient account of the interests of developing countries and poor people. We consider that the institutional framework is not optimally suited to this task and needs to display considerably greater sensitivity to these issues. [...]"

(Commission Report, 155)

The Report then raises the following central questions:

- Do the key international institutions, in particular WTO and WIPO, provide adequate advice and analysis based on an understanding of the particular needs of developing countries, and poor people?
- In their bilateral relations with developing countries, do developed countries take sufficient account of the impact of IPRs on developing countries and in particular the poor people in them?
- Are developing countries themselves sufficiently aware of where their own interests lie, and do they have the capacity to secure those interests in bilateral and multilateral negotiations?⁶¹

The global architecture for IPRs has become increasingly complex

* * *

The discussion of the global IPR architecture leads us to consider some of the cross-cutting issues that policy makers need to consider in designing and adopting IPR policies. This is the subject of Part Two of this report.

CHAPTER 2: END NOTES

- ¹ See Vivas, D, "Inventory of relevant international negotiations, activities and processes on intellectual property". UNCTAD-ICTSD Capacity Building Project on IPRs and Sustainable Development, 2002, at <http://www.ictsd.org/iprsonline/unctadictsd/docs/Vivas2002.pdf>.
- ² Examples of these kinds of agreements include the 1973 European Patent Convention, the 1998 European Community Directive on the Legal Protection of Biotechnological Inventions, the 1982 Harare Protocol on Patent and Industrial Designs within the Framework of the African Regional Industrial Property Organization, and the 2000 Andean Community Common Regime on Industrial Property. Some of these, such as Chapter 17 of the North American Free Trade Agreement (NAFTA), are components of trade agreements rather than stand-alone IPR treaties.
- ³ Specifically, these include those bilateral agreements that deal with IPRs as perhaps one of several issues covered. Recent examples are the Free Trade Agreements between the United States and respectively Jordan (2002), Singapore (2003) and Chile (2003).
- ⁴ Article 3, of the Convention Establishing the World Intellectual Property Organization. Signed at Stockholm on July 14, 1967.
- ⁵ For example, some of the language of the European Patent Convention and of Chapter 17 of the North American Free Trade Agreement were incorporated into the TRIPS Agreement. Having made this point, the national laws of some influential countries may also be used as sources of text to be incorporated into multilateral agreements, although such countries are likely to be few in number (and perhaps only the United States).
- ⁶ TRIPS Article 4.1 provides that "With regard to the protection of intellectual property, any advantage, favour, privilege or immunity granted by a Member to the nationals of any other country shall be accorded immediately and unconditionally to the nationals of all other Members." For more details on the MFN obligation, see below, and, in particular, the UNCTAD/ICTSD "Resource Book on TRIPS and Development", Part One, Section 1.3 (<http://www.ictsd.org/iprsonline/unctadictsd/ResourceBookIndex.htm>).
- ⁷ See Vivas, D, "Regional and bilateral agreements and a TRIPS-plus world: the Free Trade Area of the Americas (FTAA)", *TRIPS Issues Papers* no.1, published by the Quaker United Nations Office (QUNO), Geneva, the Quaker International Affairs Programme (QIAP), Ottawa, and the International Centre for Trade and Sustainable Development (ICTSD), Geneva, 2003. Available at: http://www.geneva.quno.info/main/showproject.php?p_id=41&pg_id=113.
- ⁸ The Punta del Este Declaration provisions on IPRs (D. Subjects for Negotiations) states: "In order to reduce the distortions and impediments to international trade, and taking into account the need to promote effective and adequate protection of intellectual property rights, and to ensure that measures and procedures to enforce intellectual property rights do not themselves become barriers to legitimate trade, the negotiations shall aim to clarify GATT provisions and elaborate as appropriate new rules and disciplines.

Negotiations shall aim to develop a multilateral framework of principles, rules and disciplines dealing with international trade in counterfeit goods, taking into account work already underway in GATT.

These negotiations shall be without prejudice to other complementary initiatives that may be taken in the World Intellectual Property Organization and elsewhere to deal with these matters."
- ⁹ See Roffe, P, "The political economy of intellectual property rights - an historical perspective", in J. Faundez, J, Footer, ME and Norton, JJ (eds), *Governance, Development and Globalization: A Tribute to Lawrence Tshuma*, London, Blackstone Press, 2000: 404-405.
- ¹⁰ Doremus, PN, "The externalization of domestic regulation: intellectual property rights reform in a global era", *Global Legal Studies Journal* 3 (2), 1996 (<http://www.law.indiana.edu/glsj/vol3/no2/doremus.html>).
- ¹¹ Ryan op cit; Sell, SK, "Power and Ideas: North-South Politics of Intellectual Property and Antitrust", Suny Series in Global Politics, Albany: State University of New York Press, 1998.

- ¹² See, for example, Inman BR and Burton, DF Jr., "Technology and Competitiveness: 'The new policy frontier'", *Foreign Affairs* 69 1990: 117-134. See also Drahos, P, "Information Feudalism. Who Owns the Knowledge Economy", Earthscan, London, 2002.
- ¹³ Such as by incorporating, by reference, new WIPO treaties. For example, the United States and the EU have been suggesting that TRIPS be revised to incorporate the 1996 WIPO Performances and Phonograms Treaty and the WIPO Copyright Treaty (Correa, "Intellectual Property Rights, the WTO and Developing Countries: The TRIPS Agreement and Policy Options", London, New York and Penang: Zed Books and Third World Network, 2000: 232).
- ¹⁴ See Drahos, P, "BITs and BIPs: bilateralism in intellectual property", *Journal of World Intellectual Property* 4 (6), 2001: 791-808.
- ¹⁵ In fact, it was agreed to delete the reference to counterfeit goods from the title of the agreement.
- ¹⁶ This can be consulted at: <http://www.ictsd.org/iprsonline/unctadictsd/ResourceBookIndex.htm>.
- ¹⁷ See Reichman, JH, "From free riders to fair followers: global competition under the TRIPS Agreement", *New York Journal of International Law and Politics* 29, 1996-97: 11-93.
- ¹⁸ TRIPS footnote 14.
- ¹⁹ Kim, L and Nelson, RR, "Introduction", in Kim L and Nelson RR (eds.), *Technology, Learning, and Innovation: Experiences of Newly Industrializing Economies*, Cambridge: Cambridge University Press, 2000.
- ²⁰ Kim and Nelson op cit., citing Schnaar, S, "Managing Imitation Strategy: How Later Entrants Seize Markets from Pioneers", New York: Free Press, 1994.
- ²¹ Evans, GE, "The principal of national treatment and the international protection of industrial property", *European Intellectual Property Review* 18 (3), 1996: 149-160.
- ²² Likewise, the EU's Council Regulation (EEC) No. 2081/92 of 14 July 1992, on the Protection of Geographical Indications of Origin for Agricultural Products and Foodstuffs, in its Article 12(1), appears to have recourse to a material reciprocity requirement as far as the protection in the EU of third-country agricultural products or foodstuffs is concerned. This has sparked criticism and the threat of recourse to WTO dispute settlement from the United States and Australia. For details, see the *Resource Book on TRIPS and Development*, Part Two, section 2.3, sub-section 6.3.
- ²³ See Article 3(3) of UPOV 1978, enabling member States of the Union to deviate from the national treatment principle. By contrast, Article 4 of UPOV 1991 does not provide for such an exception to the national treatment principle.
- ²⁴ Article 41.1.
- ²⁵ Article 41.2.
- ²⁶ Article 45.1.
- ²⁷ Article 61.
- ²⁸ Article 41.5.
- ²⁹ In a recent report, Médecins Sans Frontières (MSF) illustrate how thorough patent examinations and strict criteria of patentability may assist a developing country in the pursuit of effective public health policies. See MSF, "Drug Patents Under the Spotlight: Sharing Practical Knowledge About Pharmaceutical Patents", Geneva: MSF, May 2003: chapter 3. A summary of the report is available at: <http://www.msf.org/content/page.cfm?articleid=697723AFC81B-467C-94053B91C769DF41>.
- ³⁰ See WTO documents WT/MIN(01)/DEC/1, WT/MIN(01)/DEC/2, and WT/MIN(01)/17 of 20 November 2001.
- ³¹ Pursuant to this, in February 2003, the Council for TRIPS adopted a decision requiring the developed country WTO members to "submit annually reports on actions taken or planned in pursuance of their commitments under Article 66.2." Such reports must provide the following information: (a) an overview of the incentives regime put in place to fulfill the obligations of Article 66.2, including any specific legislative, policy and regulatory framework; (b) identification of the type of incentive and the government agency or other entity making it available; (c) eligible

enterprises and other institutions in the territory of the Member providing the incentives; and (d) any information available on the functioning in practice of these incentives (See WTO document IP/C/28).

- ³² See Drahos, P, *op.cit.*, 2002
- ³³ See MSF, CPT, Oxfam International and HAI, "Implementation of the Doha Declaration on the TRIPS Agreement and Public Health: Technical Assistance - How to Get it Right", Report of a one-day conference in Geneva, 28 March, 2002; and the Report of the Commission on Intellectual Property Rights, Chapter 8: 155 *et seq.*, *op.cit.*, both of which raise this issue.
- ³⁴ See The South Centre, "The WIPO patent agenda: the risks for developing countries", *T.R.A.D.E Working Paper* no. 12, 2002, available at <http://www.southcentre.org/publications/wipopatent/wipopatent.pdf>.
- ³⁵ Uemura, S, "WIPO update: patent law harmonization and the grace period", *CASRIP Publication Series: Rethinking Intellectual Property* 6, 2000: 263-270.
- ³⁶ See Correa, CM, "Reviewing the TRIPS Agreement, in United Nations Conference on Trade and Development, 'Elements of a positive agenda'", in UNCTAD, *Positive Trade Agenda for Developing Countries: Issues for Future Trade Negotiations*, Geneva: UNCTAD, 2000.
- ³⁷ A good example of such a bilateral agreement is the 2000 Agreement Between the United States of America and the Hashemite Kingdom of Jordan on the Establishment of a Free Trade Area, which requires patents to be available for any invention in all fields of technology, without including the exception from Article 27.3(b) of TRIPS. Jordan must also join UPOV. In addition, a supplementary memorandum of understanding requires Jordan to allow the patenting of business methods and computer-related inventions.
- ³⁸ Drahos, P, "Developing countries and international intellectual property standard-setting", London: Commission on Intellectual Property Rights, 2002: 29.
- ³⁹ Note that for non-UPOV countries, accession to the 1978 Act is no longer possible (since 31 December 1995 for developing countries, see Article 37(3) of UPOV 1991).
- ⁴⁰ The only two appear to be the United States Plant Patent Act, passed in 1930, which protects asexually reproduced varieties, and a similar legislation in the Republic of Korea (WTO-CTE (1999)). See "The relationship between the Convention on Biological Diversity (CBD) and the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), with a focus on Article 27.3 (b)". Background note by the Secretariat [WT/CTE/W/125]).
- ⁴¹ Such models include the Organization of African Unity's "African model legislation for the protection of the rights of local communities, farmers and breeders, and for the regulation of access to biological resources" and the "Convention of Farmers and Breeders", which was produced by an Indian advocacy group called Gene Campaign. Both were drafted in the late 1990s. Also, the Crucible Group produced a set of options for *sui generis* intellectual property laws for plant varieties (see Crucible II Group, "Seeding Solutions, Volume 2: Options for National Laws Governing Control over Genetic Resources and Biological Innovations", Ottawa, Rome and Uppsala: IDRC, IPGRI and Dag Hammarskjöld Foundation, 2001). India's recently passed legislation on plant breeders' rights is unusual in that it diverges from the UPOV standards and may provide a suitable model for other developing countries.
- ⁴² Article 14.
- ⁴³ As of 13 December 2002, the CBD had 186 State parties plus the European Community.
- ⁴⁴ See Article 1 of the CBD.
- ⁴⁵ For an overview of the positions expressed by some developing country delegations at the TRIPS Council, see the "Resource Book on TRIPS and Development", Part Two, section 2.5.5 on Article 27.3(b).
- ⁴⁶ Along with appropriate access to genetic resources and appropriate funding (Article 1).
- ⁴⁷ Article 16.2.
- ⁴⁸ Thailand is another notable non-Party.
- ⁴⁹ Paragraph 16(d)(ii).
- ⁵⁰ Paragraph 42(c) and (d).

- ⁵¹ COP Decision VI/24, to which the Bonn Guidelines were annexed, also called for further information gathering and analysis on several matters including: a) impact of intellectual property regimes on access to and use of genetic resources and scientific research; b) role of customary laws and practices in relation to the protection of genetic resources and traditional knowledge, innovations and practices, and their relationship with intellectual property rights; c) efficacy of country of origin and prior informed consent disclosures in assisting the examination of intellectual property rights application and the re-examination of intellectual property rights granted; d) feasibility of an internationally recognized certification of origin system as evidence of prior informed consent and mutually agreed terms; and e) role of oral evidence of prior art in the examination, granting and maintenance of intellectual property rights.
- ⁵² See Kloppenburg J Jr., and Kleinman DL, "Seed wars: common heritage, private property, and political strategy", *Socialist Review* 95, 1987: 6-41.
- ⁵³ Halewood, M, "Indigenous and local knowledge in international law: a preface to sui generis intellectual property protection", *McGill Law Journal* 44, 1999: 953-996.
- ⁵⁴ CPGR Resolution 5/89 defined farmers' rights as "rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources particularly those in the centres of origin/diversity. Those rights are vested in the international community, as trustees for present and future generations of farmers, and supporting the continuation of their contributions as well as the attainment of overall purposes of the International Undertaking" [on Plant Genetic Resources].
- ⁵⁵ According to its Article 28, the Treaty will enter into force 90 days after the deposit of the fortieth instrument of ratification, acceptance, approval or accession. For the current membership see <http://www.fao.org/Legal/TREATIES/033s-e.htm>.
- ⁵⁶ For a legal analysis of this issue see the "Resource Book on TRIPS and Development", Part Two, section 2.5.5 on Article 27.3(b) TRIPS.
- ⁵⁷ While the CBD refers to genetic resources in general, the FAO Treaty is limited to "plant genetic resources for food and agriculture" (see Article 1.1).
- ⁵⁸ See Article 15 of the CBD.
- ⁵⁹ See Article 10.2 of the FAO Treaty.
- ⁶⁰ See the Preamble.
- ⁶¹ See Report of the Commission, op.cit.: 156.

