

REGULATING PATENT HOLDERS: LOCAL WORKING REQUIREMENTS AND COMPULSORY LICENCES AT INTERNATIONAL LAW[©]

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For decades, industry lobbyists and governments have been mounting pressure on other countries to offer stronger protection for foreign owned intellectual property. This paper seeks to sow dissent among those who feel that the *NAFTA* and *TRIPS* agreements represent the triumph of strong intellectual property rights over domestic policy-making alternatives. Focusing on patent law, in particular, this article argues that there are a wide range of policy options open to patent granting countries which both circumscribe patent holder's rights and comply with *TRIPS* and *NAFTA*. More specifically, the author argues that *TRIPS* and *NAFTA* signatories continue to enjoy relatively broad discretion to legislate compulsory licensing and mandatory local working conditions.

Depuis des décennies, les groupes de pression et les gouvernements des pays industrialisés intensifient la pression sur les autres pays afin qu'ils offrent une meilleure protection pour les titulaires étrangers de droits de propriété intellectuelle. Cet article vise à soulever le désaccord entre ceux qui opinent que d'*ALÉNA* et l'*ADPIC* représentant le triomphe des droits des titulaires de brevets par rapports aux protagonistes des solutions politiques internes. Entre autres, la présente discussion soutient qu'il existe, conformément à l'*ALÉNA* et l'*ADPIC*, de nombreuses options politiques pouvant être adoptées par les pays qui accordent des brevets, ayant pour effet de limiter les droits de ces titulaires. Particulièrement, l'auteur examine la possibilité pour les signataires de l'*ALÉNA* et de l'*ADPIC* de jouir d'une marge de manoeuvre quant à l'adoption des licences et des conditions de travail obligatoires.

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I. INTRODUCTION

This article seeks to establish that domestic patent legislation that requires “local working,” and creates relatively wide powers for granting compulsory licences, would not be in contravention of the *Agreement on Trade-Related Aspects of Intellectual Property Rights* or the *North American Free Trade Agreement*.

The argument is a timely one, because all around the globe, governments are changing—or being pressured to change—their domestic patent legislation in favour of foreign patentees, including loosening or eliminating local working requirements, and severely restricting their use of compulsory licences.³ Working requirements and

¹ *Agreement on Trade-Related Aspects of Intellectual Property Rights* being Annex IC to the *Final Act and Agreement Establishing the World Trade Organization* 15 December 1993, (1994), 33 I.L.M. 81 [hereinafter *TRIPS*]. See *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Text* (Geneva: GATT Secretariat, 1994).

² *North American Free Trade Agreement: between the Government of Canada, the Government of the United Mexican States; and the Government of the United States of America* 17 December 1992, Can. T.S. 1994 No. 2 [hereinafter *NAFTA*] (entered into force 1 January 1994).

³ Canada’s relatively broad powers for granting compulsory licences were curtailed in two successive legislative amendments: *An Act to Amend the Patent Act and to provide for certain matters in relation thereto* S.C. 1987, c. 41; and *Patent Act Amendment Act, 1992* S.C. 1993, c. 2. The controversy in Canada regarding compulsory licensing was recently revived in the Standing Committee on Industry’s Review of Section 14 of the *Patent Act Amendment Act, 1992* S.C. 1993, c. 2. See Canada, House of Commons, *Fifth Report of the Standing Committee on Industry: Review of Section 14 of the Patent Act Amendment 1992*, 22d Sess., 35th Parl. (Chair: David Walker) Issue No. 7 23 April 1997 (Meeting No. 66). An overview of the changes regarding compulsory licensing in Canada, and the pressure brought by multinational pharmaceutical producers, and U.S. treaty negotiators is provided in A. Rotstein, “Intellectual Property and the Canada-U.S. Free Trade Agreement: The Case of Pharmaceuticals” in K. Nair & A. Kumar, eds., *Intellectual Property Rights* (New Delhi: Allied Publishers, 1994) 221. Similarly, New Zealand repealed its compulsory licensing provisions in 1992: see J. Wechkin, “Drug Price Regulation and Compulsory Licensing for Pharmaceutical Patents: The New Zealand Connection” (1995) 5 *Pac. Rim L. & Pol’y J.* 237, for a full account. China has restricted the conditions under which it can grant compulsory licences: see D. Hill & J. Evans, “Chinese Patent Law: Recent Changes Align China More Closely with Modern International Practice” (1994) 27 *Geo. Wash. Int’l L. & Econ.* 359. Thailand, which had very strong local working requirements and liberal compulsory licensing policies has responded to foreign pressure to restrict its use and enforcement of those provisions: see H. Kwon, “Patent Protection and Technology Transfer in the Developing World: The Thailand Experience” (1995) 28 *Geo. Wash. J. Int’l L. & Econ.* 567. See also J. Blatt & P. Miller, “Preparing for the Pacific Century: Fostering Technology Transfer in Southeast Asia” (1996) 3 *Ann. Surv. Int’l & Comp. L.* 235, note 14, for more details regarding Thai working requirements. India has also drastically reduced the circumstances under which compulsory licenses can be granted. See B.K. Keayla, “Product Protection and the Pharmaceutical Industry” in Nair & Kumar, eds., 151; S.L. Rao, “The Indian Health Care Industry: Role of Intellectual Property Rights” in Nair & Kumar, eds., 175; and M. Adelman & S. Baladia “Prospects & Limits of the Patent Protection in the TRIPS Agreement: The Case of India” (1996) 29 *Vand. J. Transnat’l L.* 507. Regarding Mexico, see R. Baca, “Compulsory

compulsory licences are important mechanisms by which a patent granting country can compel foreign patentees to transfer technology to within its jurisdiction. "Local working" refers to the condition some countries impose on patentees that their patented product or process must be used or produced in the patent granting country. This condition has the effect of forcing foreign patentees to situate production facilities within the patent granting country. Such transfers of technology are desirable from the patent granting country's point of view because they contribute to a variety of public policy goals such as employment creation, industrial and technological capacity building, national balance of payments, and economic independence. "Compulsory licensing" refers to the practice of governments allowing parties other than the original patentees to exploit patented products and processes. In such cases, the patentee is forced to grant a licence to a third-party licensee to exploit the patented product or process, in return for which the patentee generally receives a royalty payment at a rate set by legislative fiat. Justifications for the grant of compulsory licences vary considerably between countries. Perhaps the most important use of compulsory licences is as a remedy for patent-holder abuses such as "non-working," or the maintenance of artificially high prices for patent protected commodities. As far as their effect on the transfer of technology is concerned, the immediate advantage of compulsory licensing is obvious: compulsory licences allow third parties to exploit on a local basis that technology which the original patentees failed to introduce into the country in the first place, or failed to use once it was introduced. In the absence of controls such as compulsory licensing and mandatory local working, patent granting countries are left in the unenviable position of having to trust that foreign patent holders will decide *on the basis of their own self interest* to transfer technology to within their jurisdictions.

Despite the evident advantages of compulsory licensing and mandatory working requirements from a nation-building point of view, many commentators take the position that signatory states to *NAFTA* and/or *TRIPS* have forfeited, or severely limited their ability to invoke

Licensing in the 1990s: The Aftermath of *NAFTA* and the 1991 Industrial Property Law" (1995) 28 J. Vand. Transnat'l L. 33.

For an excellent analysis of American efforts to strengthen intellectual property in a number of countries, including, Argentina, Brazil, Egypt, Canada, Chile, Colombia, Greece, Indonesia, Italy, Japan, Malaysia, Pakistan, Philippines, Portugal, Spain, Turkey, Venezuela, and the Former Yugoslavia: see C. O'Neal Taylor, "The Limits of Economic Power: Section 301 and the World Trade Organization Dispute Settlement System" (1997) 30 Vand. J. Transnat'l L. 209. See also, M. Getlan, "*TRIPS* and the Future of Section 301: A Comparative Study in Trade Dispute Resolution" (1995) 34 Colum. J. Transnat'l L. 173, for more detail regarding Brazilian, Chinese, and Thai s. 301 cases, and the involvement of the American Pharmaceutical Manufacturers Association.

these two mechanisms. The notion that *NAFTA* and *TRIPS* have this effect is generally based on two claims.

The first claim is that *NAFTA* and *TRIPS* preclude any legislation that requires national “working” of patents. Accordingly, “working” can be satisfied completely by importing the patented product into the patent granting country. “Working” therefore, has been redefined and diminished to the extent that it no longer serves to guarantee the transfer of anything but finished commodities.

The second claim is that *NAFTA* and *TRIPS* drastically restrict the conditions under which states may grant compulsory licences. Many commentators and patent rights advocates propound that compulsory licensing is now governed exclusively by articles 1709:10 and 31 of *NAFTA* and *TRIPS* respectively and that under those articles, compulsory licensing must be severely constrained. If they are correct, the ability of states to utilize compulsory licensing in order to foster technology transfers is undermined.

I will argue that both claims are inaccurate.

In Parts II and III, I argue that domestic law requiring mandatory working (Part II) and compulsory licensing (Part III) would not contradict the substantive provisions of the *NAFTA* and *TRIPS* agreements. These arguments involve a historical review of the rise and fall of both mandatory licensing and “working” in international law. They also involve interpretations of *NAFTA* and *TRIPS* that are harmonious with the earlier *Paris Convention for the Protection of Industrial Property, 1967*

In Part IV, I examine the possibility that developing countries may be in a stronger legal position than developed countries to justify invoking compulsory licensing and local working requirements, based on an analysis of the *Convention on Biological Diversity*. I will ultimately argue however, that the *CBD* does little to bolster the legal position of developing countries with respect to the possibility of their invoking compulsory licensing and mandatory working requirements.

It is not my intention to engage the well rehearsed argument that patents will ultimately be most effective at disseminating technology only once they are accorded the strongest possible protection, or, in other

⁴ *Paris Convention for the Protection of Industrial Property of March 20, 1883* U.N.T.S. 107, as revised at Brussels on 14 December 1900, at Washington on 2 June 1911, at the Hague on 6 November 1925, at London on 2 June 1934, at Lisbon on 31 October 1958 and at Stockholm on 14 July 1967 [hereinafter *Paris Convention*]. My analysis focuses on the revisions to art. 5 of the *Paris Convention*. For ease of reference, these revisions have been reproduced in the Appendix, below.

⁵ *United Nations Conference on Environment and Development Convention on Biodiversity* June 1992, 31 I.L.M. 818 [hereinafter *CBD*].

words, that foreign patentees will not risk transferring their technologies to other countries until they know their technology is safe from being copied. The logical conclusion of this argument is that, because both mandatory local working and compulsory licensing erode the overall strength of patent protection, they will ultimately undermine whatever incentives might exist to transfer technology in the first place. This argument may or may not be accurate; it is not within the competence of this article to evaluate. Instead, this article starts with the premise that states may, for whatever reasons, want to invoke legislation that allows them to interfere with the international market forces to promote technology transfers to within their borders.

Finally, it must be noted that the importance of compulsory licensing and mandatory working is increased by the fact that both *TRIPS* and *NAFTA* extend patent protection to subject matter that previously was not protected in many countries. Pharmaceuticals are perhaps the most controversial (and profitable) new subject matter to be included within the scope of these agreements.⁶ Some countries have been successful in developing national pharmaceutical industries as a result of domestic producers' ability to produce and sell pharmaceuticals that are patented in other countries.⁷ Domestic legislation prohibiting such use threatens to undermine these local industries, and leave the market open to supply by foreign patentees. In this situation, at the very least, local working requirements and compulsory licensing could be used to ensure that at least some technology equivalent to that which was previously used by domestic producers continues to be exploited within the patent granting country, even though the right to supply the local markets may have shifted from nationally based suppliers to foreign-based multinationals.

⁶ As of 1992, the following countries did not allow patents for pharmaceutical compounds or compositions: Argentina; Brazil; Egypt; Ghana; Honduras; Hungary; India; Iran; Iraq; Kuwait; Lebanon; Libya; Monaco; Norway; Poland; Portugal; Syria; Tangier Zone; Thailand; Tunisia; and Turkey. See M. Gollin, "An Intellectual Property Rights Framework for Biodiversity Prospecting" in *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (Washington, D.C.: World Resources Institute, 1993) 159 at 169.

⁷ Adelman & Baldia, *supra* note 3 at 525-28.

II. THE MANDATORY WORKING REQUIREMENT

A. “Local” or “National” Working Defined

“Local working” and “national working” are synonymous. Both terms refer to the requirement that the patentee must manufacture the patented product, or apply the patented process, within the patent granting country. By requiring local, or national working, the patent granting country forces the patentee to transfer the patented technology, or the technology needed to produce the patented product, into the country.

B. *The Position Against Local Working Pursuant to TRIPS and NAFTA*

Article 27:1 of *TRIPS* (entitled “Patentable Subject Matter”) and article 1709:7 of *NAFTA* (untitled) state in identical language that: “patents shall be available and patent rights enjoyable without discrimination ... whether products are imported or locally produced.”⁸

Several commentators have taken the position that these articles preclude any country from invoking a local working requirement, or, to the same practical end, that the articles redefine “working” to include

⁸ The full text of *TRIPS*, art. 27, *supra* note 1, states:

1. Subject to the provisions of paragraphs 2 and 3 below, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. [FN5] Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced [footnote omitted].

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by domestic law.

3. Members may also exclude from patentability:
 (a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;
 (b) plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof. The provisions of this sub-paragraph shall be reviewed four years after the entry into force of the *Agreement Establishing the MTO*

the possibility of being satisfied by importation alone.⁹ In either case, it follows that any legislation requiring local working would be in contravention of *TRIPS* and/or *NAFTA*.

C. *The Argument in Favour of Local Working Pursuant to TRIPS and NAFTA*

I argue, however, that one cannot deduce from the fact that *TRIPS* and *NAFTA* recognize imports as “patentable subject matter,” that imports *per se* must always satisfy working requirements.

This argument proceeds in two stages. The first stage involves a historical review of patent law. Here, I will establish that, for approximately one hundred years prior to *NAFTA* and *TRIPS*, international patent law simultaneously recognized *both* the concept that patented subject matter could be imported, *and* the concept that governments had the right to impose local working. Most importantly, international law embodied in the *Paris Convention* recognized the concepts to be complementary. In short, patented subject matter could be imported, just not in sufficient quantities to threaten the effective local working of the patent.

The second stage involves a review of relevant *TRIPS* and *NAFTA* provisions. I will establish that nothing in either agreement alters the historically complementary relationship between patent importation and local working. Given that both *NAFTA* and *TRIPS* (to differing degrees) require continued observance of the prior *Paris Convention*, I will conclude that articles 1709:7 and 27:1 respectively do no more than repeat the historically well-established principle that patented material

⁹ See for example, K.H. Jordan, “International Application of a Domestic Intellectual Property Protection Strategy: Extending a Predatory Litigation Strategy to the European Community” (1995) 11 Santa Clara Computer & High Tech. L.J. 373 at 389-400; Adelman & Baldia, *supra* note 3 at 517; Baca, *supra* note 3 at 48; M. Doane, “*TRIPS* and International Intellectual Property Protection in an Age of Advancing Technology” (1994) 9 Am. U. J. Int’l. L. & Pol’y 465 at 479; J. Masterson, “Protection of Intellectual Property Rights in International Transactions” (1994) 863 Prac. L. Inst. 333 at 347; P. Knudsen, “*NAFTA*’s Impact on Rights and Remedies Under U.S. Patent Law” (1994) 7 N.Y. Int’l L. Rev. 1 at 4; C. Levy, “When Sovereignties May Collide—Sovereignty and the Regulation of International Business in the Intellectual Property Area: An American Perspective” (1994) 20 Can-U.S. L.J. 185 at 188-89; and S. Oddi, “Natural Rights and a ‘Polite Form of Economic Imperialism’” (1996) 29 Vand. J. Transnat’l L. 415 at 451.

See also *Re Compulsory Patent Licenses: E.C. Commission v. United Kingdom & Italy* (1992), 2 C.M.L.R. 709 (E.C.J), where the court held that art. 5(a) of the *Paris Convention, 1967*, was not sufficient to override the later EEC provisions that imports must be completely free of restrictions within the EU, and that therefore, within the EU, imports *per se* must satisfy the work requirement.

can be imported in limited quantities, and that they do not preclude the possibility of legislated local working.

1. History: the earliest patents

Prior to being made the subject of legislation, patents were granted by virtue of royal and state prerogative.¹⁰ The first such patents were granted in the Italian city states in the early 14th century.¹¹ Patents spread throughout Europe thereafter, primarily as a tool to attract foreign craftspeople to practise their arts in different jurisdictions.¹² Some of the earliest English patents, for example, were granted to foreigners to employ their crafts in England to produce and supply the English market with salt, silk, textiles, mining, metallurgy, and ordinance.¹³

The earliest discovered patent legislation, the Venetian *Patent Act of 1474*, required the active exploitation of patents; otherwise, they were cancelled by the Venetian state.¹⁴ Likewise, the English *Statute of Monopolies, 1623* mandated the working of the patent grant.¹⁵ The American *Patent Act of 1790* provided what are now referred to as “importation patents,” which gave Americans monopoly rights to import foreign technology, without any obligation to protect foreign inventors’ rights.¹⁶ It has been held that, “as far as the American *Patent Act* is concerned, there can be no doubt but that its primary *raison d’être* was to give an incentive for working new inventions locally.”¹⁷ The French *Patent Law of 1791* also granted importation patents to work foreign inventions in France. In addition, the *Patent Law* revoked French patent

¹⁰ P. Meinhardt, *Inventions, Patents and Monopoly* (London: Stevens & Sons, 1946) at 43.

¹¹ C. MacLeod, *Inventing the Industrial Revolution: The English Patent System, 1660-1800* (Cambridge: Cambridge University Press, 1988) at 11.

¹² *Ibid.*

¹³ *Ibid.* at 12.

¹⁴ *Ibid.* at 11.

¹⁵ U. Anderfelt, *International Patent Legislation and Developing Countries* (The Hague: Martinus Nijhoff, 1971) at 7.

¹⁶ C. Twinomukunzi, “The International Patent System—a Third World Perspective” (1982) 22 *Indian J. Int’l L.* 31 at 42.

¹⁷ Anderfelt, *supra* note 15 at 13.

grants if inventors attained a foreign patent in a subject matter originally patented in France.¹⁸

By the middle of the nineteenth century, most industrialized countries had passed patent related legislation. As the discussion above indicates, patent law served, for the most part, to bolster domestic industrialization and provided very little by way of protection for foreign patents.¹⁹

2. History: *Paris Convention, 1883* to the *Stockholm Revision, 1967*

In 1883, the Union for the Protection of Industrial Property, produced the *Paris Convention*²⁰ This was the first multilateral treaty negotiation to standardize the treatment of intellectual property on an international scale.²¹ For the purposes of this paper, however, the most important development was the correlative treatment of 1) the local working requirement, and 2) the importation of patented material.

Article 5(1) of the *Paris Convention, 1883*²² stated that importation of patented articles “shall not entail forfeiture of the patent.” Article 5(2), however, stated: “Nevertheless, the patentee shall remain under the obligation to exploit his patent in accordance with the laws of the country into which he introduces the patent.”²³

Prior to the recognition that importation would not entail forfeiture, some countries’ legislation stipulated that a patentee was not allowed to import *any* of the patented material, despite the fact that the patent was for the most part being worked locally. In such cases, the patent was revoked; no less extreme remedy existed at that time. Compulsory licensing had not yet been introduced, as will be discussed in Part III, below. Article 5(1), therefore, was designed to end what was widely felt to be an abuse of the working requirement—forfeiture on the basis of *some* importation. There is nothing in the *Paris Convention*, or in any of the legal historical commentary regarding the section, to

¹⁸ *Ibid.* at 15.

¹⁹ *Ibid.* at 65-66.

²⁰ Hereinafter *Paris Convention, 1883* *supra* note 4 and Appendix, below.

²¹ The United International Bureau for the Protection of Intellectual Property (UIBPIP) served as the Secretariat of the *Paris Convention* until 1970, when it was replaced by the World Intellectual Property Organization (WIPO).

²² *Supra* note 4 and Appendix, below.

²³ *Ibid.*

suggest that article 5(1) redefined “working” to include the possibility of being satisfied by 100 per cent imports. Edith Tilton Penrose cites the following passage from a report by the “French section” in a preliminary negotiating round of the Union for the Protection of Industrial Property in 1878 as the clearest statement of the compromise inscribed in article 5(1) and (2):

There are two possibilities: one, that the patentee introduces articles and manufactures abroad in such small quantities that it does not interfere with serious exploitation of the invention in the country where the patent was taken out; the other that the importation takes place on a large scale and consequently there is no working, or at any rate only a mock working. In the latter case, forfeiture for failure to work can be enforced and that will be sufficient to protect national industry.²⁴

As early as 1883, therefore, there was an international convention which recognized that 1) imported subject matter, and 2) the possibility of laws requiring local working, were complimentary.

The *Paris Convention* was subject to six subsequent revisions over the course of 115 years. At the most recent revision conference, held in Stockholm, in 1967, article 5(A)(2)²⁵ was altered to read, “Each country ... shall have the right to take legislative measures providing for the grant of compulsory licences to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.” Georg Bodenhausen, who was the Director of the United International Bureau for the Protection of International Property at the time of the 1967 revision, confirmed that “work” in the 1967 version meant the actual use of the patent within the patent granting country:

The member states are also free to define what they understand by ‘failure to work.’ Normally, working a patent will be understood to mean working it industrially, namely, by manufacture of the patented product, or industrial application of a patented process. Thus, importation or sale of the patented article, or of the article manufactured by a patented process, will not normally be regarded as ‘working’ the patent.²⁶

Throughout the 114 years of the *Paris Convention*, two fundamental principles have remained virtually unchanged: 1) that importation will not entail forfeiture; and 2) that member countries may

²⁴ See E.T. Penrose, *The Economics of the International Patent System* (Baltimore: Johns Hopkins Press, 1951) at 76.

²⁵ Previously art. 5(2) of the *Paris Convention*, 1883, *supra* note 4 and Appendix, below.

²⁶ G.H.C. Bodenhausen, *Guide to the Application of the Paris Convention for the Protection of Industrial Property, as Revised at Stockholm in 1966* (Geneva: BIRPI, 1968) at 71.

pass legislation to mandate local working within the patent granting country.²⁷

a) *The relationship of the Paris Convention to TRIPS and NAFTA*

The inclusion of intellectual property rights in both *NAFTA* and *GATT* in particular, was controversial. The controversy was characterized by a small group of developed countries (led by the United States) pushing for the inclusion of intellectual property in the Uruguay Round, and less-developed countries arguing that intellectual property should continue to be dealt with under the World Intellectual Property Organization (WIPO)²⁸ and the *Paris Convention*²⁹

A variety of factors led to the American decision to try to shift the administration of international intellectual property law away from WIPO and into the *GATT* framework. Among the principal factors were: frustration with efforts by the "Group of 77" (a coalition of developing-countries within WIPO) to weaken international patent protection in the name of promoting technology transfers;³⁰ lack of adequate dispute settlement and enforcement mechanisms;³¹ the highly politicized nature of WIPO negotiations;³² and a lack of minimum standards of intellectual property protection.³³

²⁷ One limit to this legislative freedom came in the form of the *Brussels Revision, 1990* art. 5(3bis), stating that member countries could not pass legislation authorizing forfeiture until three years after the filing of an application for a patent. *The Lisbon Revision, 1958* strengthened this limitation, stating that a member could not grant a compulsory license until four years after the original application (art. 5(A)(4)); and could not order forfeiture until expiration of two years after the grant of a compulsory license (art. 5(A)(3)). These two conditions exist to this day in the *Paris Convention, 1967*, see Appendix, below.

²⁸ See *Convention Establishing the World Intellectual Property Organization* 4 July 1967, 6 I.L.M. 782.

²⁹ Bodenhausen, *supra* note 26 at 209.

³⁰ Doane, *supra* note 9 at 471.

³¹ H.P. Kunz-Hallstein, "The U.S. Proposal for a *GATT*-Agreement on Intellectual Property and the Paris Convention for the Protection of Industrial Property" in F.K. Beier & G. Schriker, eds., *GATT or WIPO? New Ways in the International Protection of Intellectual Property* (Munich: Max Planck Institute, 1989) 75 at 78.

³² D.E. de Kieffer, "U.S. Trade Policy Regarding Intellectual Property Matters" in G.R. Stewart, M.J. Tawlik & M. Irish, eds., *International Trade and Intellectual Property: The Search for a Balanced System* (Boulder, Colo.: Westview Press, 1994) 1.

³³ R.C. Moy, "The History of the Patent Harmonization Treaty: Economic Self-Interest As An Influence" (1993) 26 J. Marshall L. Rev. 457 at 488. Art. 2 of the *Paris Convention, 1967* establishes that the principle of "national treatment" will govern national legislative initiatives

Eventually, the United States prevailed, and intellectual property was included in the Uruguay Round negotiations. India, one of the most vocal developing countries in opposition, agreed in principle to the inclusion of intellectual property in *GATT* and the director-general of WIPO participating in the *GATT* negotiations.³⁴

Despite this subdued agreement, the *TRIPS* and *NAFTA* texts themselves reflect the struggle over which forum would be most appropriate for multilateral negotiations regarding intellectual property. Both agreements explicitly retain the law as it was set out in the *Paris Convention, 1967*. *TRIPS* article 2(1) “incorporates by reference” articles 1 through 12, and 19, of the *Paris Convention, 1967*, stating that the agreement “shall comply” with those articles. Article 2(2) states that the *TRIPS* agreement shall not “derogate from existing obligations that members may have to each other under the *Paris Convention*... .” Based on the language of *TRIPS* article 2, I argue that well-established interpretations of articles in the *Paris Convention, 1967*, should be used to clarify any ambiguities that exist in *TRIPS* articles regarding similar subject matter.

NAFTA article 2 is somewhat more ambiguous in its commitment to respect the *Paris Convention*. Article 2 states: “each party shall, *at a minimum*, give effect to this chapter and to the substantive provisions of ... the *Paris Convention* [1967].”³⁵ It is possible to argue that any protection extended to patentees in *NAFTA* complies with article 2 as long as it does not involve the extension of *less* patent protection than was set out in the *Paris Convention*. Consequently, any new, and *stronger* protection provided for in *NAFTA*—even if it contravened the substantive provisions of the *Paris Convention, 1967*—might comply with article 2. At the very least, however, article 2 suggests that *NAFTA* should be interpreted, if and where possible, in accordance with the *Paris Convention, 1967*. Certainly, if *NAFTA* is silent, or ambiguous, with respect to an issue that is clearly set out in the *Paris Convention*, the *Paris Conventions* should be used as a guide for interpreting *NAFTA*.

regarding intellectual property. National treatment stipulates that a country must treat foreign patentees in the same manner as it treats its own patentees. A country can be in compliance with this principle, even if it provides no patent protection whatsoever for foreign patentees, as long as it does not grant patent protection to its own nationals. For example, several countries were completely within the limits of the *Paris Convention, 1967* when they excluded pharmaceutical completely from their national patent legislation. *TRIPS* sets some substantive minimum protections while at the same time adhering to the principle of national treatment. See, for example, the twenty-year minimum patent protection-period (art. 33), and necessity of providing patent protection for pharmaceuticals and agricultural chemical products (art.70(8)).

³⁴ Doane, *supra* note 9 at 473.

³⁵ *Ibid.* [emphasis added].

In the following section, therefore, I refer to the *Paris Convention* to interpret *TRIPS* and *NAFTA*.

b) *Parallel structures*

The drafting structures and substantive treatment of certain subjects in *TRIPS*, and the *Paris Conventions*, 1883 through 1967, are parallel. In this section, I propose to analyze the relationship of *TRIPS* articles 27:1, 8, and 30 in light of the structurally and substantively similar articles 5(A)(1) and 5(A)(2) of the *Paris Convention, 1967*.

TRIPS, article 27:1 states that patents shall be available for inventions whether they are imported or locally produced.³⁶

TRIPS, article 8(2), entitled “Principles,” recognizes that measures may need to be taken to “prevent the abuse of intellectual property rights and ... the resort to practices which ... affect the international transfer of technology.”³⁷ *TRIPS*, article 30, entitled “Exceptions to Rights Conferred,” provides that:

Members may provide limited exceptions for the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.³⁸

It is unclear whether or not, or to what degree, articles 8 and 30 may restrict the principle set out in article 27:1.³⁹

³⁶ *Supra* note 8.

³⁷ The full text of art. 8, entitled, “Principles” states:

1. Members may, in formulating or amending their laws and regulations, adopt measures necessary to protect public health and nutrition, and to promote the public interest in sectors of vital importance to their socio-economic and technological development, provided that such measures are consistent with the provisions of this Agreement.
2. Appropriate measures, provided that they are consistent with the provisions of this Agreement, may be needed to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology.

³⁸ *NAFTA*, art. 1709:6 uses the words “other persons” instead of “third parties.” The position that the two phrases are synonymous is apparently uncontroversial. See J.-G. Castel, *Legal Opinion with Respect to Canada’s Intellectual Property Obligations Regarding Pharmaceutical Patent Compulsory Licensing Under the General Agreement on Tariff and Trade (GATT) and the North American Free Trade Agreement (NAFTA)*, (Osgoode Hall Law School of York University, 23 March 1993) at 12 [unpublished].

³⁹ It is also unclear what remedies might be available pursuant to arts. 30 and 8. This question will be dealt with in Part III—Compulsory Licences, below.

It is with the intention of clarifying this ambiguity that I propose to turn to the *Paris Convention, 1967*. Articles 5(A)(1) and 5(A)(2) of the *Paris Convention* function in a very similar fashion to *TRIPS* articles 27:1, 8, and 30. Article 5(1) recognizes that importation alone is not a sufficient ground to forfeit a patent.⁴⁰ This provision has the same substantive content as article 27:1, which recognizes that patented material can be imported.

Having recognized that patented material can be imported in article 5(A)(1), article 5(A)(2) limits the practical implications of that principle. Most importantly, for this section of the article, article 5(2) states that parties may legislate remedial measures for “abuses ..., for example, non-working.”⁴¹ Article 5(2) thereby provides elaboration by what is meant by “abuses” in article 8 of *TRIPS* non-local⁴² working, among other things.

I argue that the substantive provisions of article 5(A)(2) should be “read into” the operation of articles 8 and 30 of *TRIPS*. There is certainly nothing in *TRIPS* which either implicitly or explicitly precludes this interpretive practice. I would argue, in fact, that this interpretation is necessary given the harmonizing imperative of *TRIPS* article 2, discussed above.

Based on the interpretation proposed above, it is fair to conclude that, within the *TRIPS* framework, pursuant to articles 8 and/or 30, a country could legislate local working provisions. The local aspect of the working requirement would be limited, however, by the fact that *some* importing of the patented subject matter would have to be allowed.

It is worth pointing out that the same conclusion would result independently of which of the six versions of the *Paris Convention* one relied upon. This observation serves to underscore the historical continuity of this analysis.

In this section, I analyze the parallel frameworks that exist in *NAFTA*, articles 1709:7, 1709:8 and 1709:9⁴³ and *Paris Convention, 1967*,

⁴⁰ See Appendix, below.

⁴¹ *Ibid.*

⁴² Unlike *NAFTA*, art. 1709:6, *TRIPS*, arts. 30 and 8 include “abuse.” Bodenhausen, *supra* note 26 at 70, states that “abuses that might result from the exercise of the exclusive rights conferred by the patent” as stated in article 5(A)(2) of the *Paris Convention, 1967* relates, again, to failure to work locally.

⁴³ The text of *NAFTA* arts. 1709:6 to 1709:9 states:

6. A Party may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking into account the legitimate interests of other persons.

articles 5(A)(1) and 5(A)(2).⁴⁴ Like *TRIPS*, article 27:1, *NAFTA*, article 1709:6 recognizes that imports are patentable subject matter. *NAFTA* article 1709:6 is almost identical⁴⁵ to *TRIPS* article 30 above, so I will not repeat it here.

There are only two significant differences between the relevant *NAFTA* and *TRIPS* provisions. First, *NAFTA*, article 1709:8 provides that: “ a party may revoke a patent only when ... (b) the grant of a compulsory license has not remedied the lack of exploitation.” Second, *NAFTA* does not include an equivalent to *TRIPS* article 8. Consequently, the argument in favour of importing the substantive provisions of article 5(A) of the *Paris Convention* into *NAFTA* is little different from that set out in the previous section regarding *TRIPS*.

In short, the argument is weakened by the absence in *NAFTA* of the explicit mention of “abuses” and “practices which affect the international transfer of technology,” which were included in article 8 of *TRIPS*. The argument is strengthened however, by the language of *NAFTA* article 1709:8, which is extremely similar to *Paris Convention*, article 5(A)(2) which states that a state must only revoke (or forfeit) a patent after having attempted to remedy abuses with compulsory licensing.

c) *TRIPS* “objectives”: preamble and article 7

Article 7 sets out the “Objectives” of *TRIPS*. It states:

The protection and enforcement of intellectual property rights *should* contribute to the promotion of technological innovation and to the transfer of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, *and to a balance of rights and obligation*{emphasis added}.

7. Subject to paragraphs 2 and 3, patents shall be available and patent rights enjoyable without discrimination as to the field of technology, the territory of the Party where the invention was made and whether products are imported or locally produced.

8. A Party may revoke a patent only when:

- (a) grounds exist that would have justified a refusal to grant the patent; or
- (b) the grant of a compulsory license has not remedied the lack of exploitation of the patent.

9. Each Party shall permit patent owners to assign and transfer by succession their patents, and to conclude licensing contracts.

⁴⁴ See Appendix, below.

⁴⁵ *NAFTA*, art. 1709:6 uses the words “other persons” instead of “third parties”: see Castel, *supra* note 38 at 12.

I argue that article 7 reflects a far more subtle understanding of the policy interests that patent law has to arbitrate than most strong patents rights advocates are willing to recognize. Patent law has to balance two sets of competing interests: the public interest in immediate and widespread dissemination of technology; and the private interest of individual creators, seeking maximum opportunity to exploit their inventions.⁴⁶ Patent rights advocates attempt to undercut this conceptual balance by arguing that there really is no competition between public and private interests in patent law; that, in fact, the strongest possible legal protection for their private interests will result in the maximum public good. In short, they argue that stronger patent protection creates greater incentive to innovate, which is in the public interest.⁴⁷ The emphasized segments of article 7, above, make it clear that the objectives of the agreement go beyond this relatively simplistic vision of strong patent rights.

First, the word “should” implies that the “protection and enforcement of intellectual property rights” *does not necessarily* “contribute to the promotion of technological innovation and to the transfer of technology.” The agreement clearly envisages that something other than the simple strengthening of patent laws may be necessary to achieve its objectives (which include the transfer of technology).

Second, the article explicitly states that “protection and enforcement of intellectual property rights should contribute to ... a balance of rights and obligations.” This language clearly indicates that the objective of the agreement involves consideration of principles beyond a mere strengthening of the patent holders rights.⁴⁸

⁴⁶ Moy, *supra* note 33 at 483.

⁴⁷ *Ibid.* at 480.

⁴⁸ Additional support for the thesis that *TRIPS* envisages local working is found in art. 28, and 8(1). Article 27 is entitled “Patentable Subject Matter” and art. 28 is entitled “Rights Conferred.” It is logical to expect that the strongest statement in favour of the interpretation that importation satisfies “working” would be set out in art. 28. Article 28, however, does not include the right to import patented subject matter among its enumerated conferred rights. The article’s sole reference to importing has to do with the right of patent holders to prevent a third party from importing his or her patented subject matter.

Article 8(1), entitled “Principles,” allows members to amend laws to “to protect public health and nutrition, and promote the public interest in sectors of vital importance to their socio-economic and technical development.” It is certainly arguable, with respect to art. 28(1), that a local working requirement is an excellent way to foster the “public interest” in the “technical development” of any variety of industries.

3. Conclusion with respect to local working

Based on the foregoing analysis, it is evident that legislation requiring local working of patents would not be in contravention of either *TRIPS* or *NAFTA*. The argument is perhaps marginally stronger with respect to *TRIPS*, given the inclusive reference to the *Paris Convention* in *TRIPS* article 2. On the other hand, there is nothing in *NAFTA*, that either directly, or implicitly, contradicts the *Paris Convention*. Consequently, the significance of the weaker language with which *NAFTA* makes reference to the *Paris Convention* is minimal.

Finally, it is important to note that the interpretation urged upon us by patent rights advocates—that articles 27:1 and 1709:7 redefine “working” to permit 100 per cent importing—effectively reverses the historical function of patents. Patents were originally granted to promote the domestic application of foreign technologies, with little protection for the rights of the original foreign patentees. The interpretation advanced by patent advocates emphasizes protection of foreign patentees, to the exclusion of any consideration of local interests in technology transfers.

III. COMPULSORY LICENSING

A. *Definition of Compulsory Licensing*

Compulsory licensing refers to the practice of governments to compel the transfer, from a patent holder to a third party, of some or all of the patent holder’s right to produce a patented product, or use a patented process. For the purposes of this article, I have divided the conditions under which compulsory licences are granted into three classes. Each class is defined by the existing situation for which the license is granted as a remedy. Compulsory licences are granted in the three following situations, as a remedy for 1) non-working; 2) other, more broadly defined abuses; and 3) the public interest, without consideration of whether or not there has been any abuse on the part of

the patentee.⁴⁹

B. *The Arguments in Favour of Severely Restricted Compulsory Licensing*

One argument in favour of severely restricted compulsory licensing is very closely connected to, and dependent upon, the meaning of “working” in *TRIPS* and *NAFTA*. If one accepts that importation can, on its own, satisfy “working,”⁵⁰ then it follows that the practice of granting mandatory licences as a remedy for non-working will be virtually eliminated.

A second argument, concerning all three classes of compulsory licences, is that any domestic legislation regarding compulsory licensing must be in accordance with articles 31⁵¹ and 1709:10 of *TRIPS* and *NAFTA*,

⁴⁹ One might construe the existence of a possible fourth class of compulsory licences, which consists of compulsory licences granted to government, or public bodies, either as a remedy for non-working, or for some other policy objective. Unlike the three classes of compulsory licences listed above, which are defined by reference to the situations they are meant to rectify, this fourth class is defined by the identity of the recipient of the licence, regardless of the remedial function of the licence. That said, however, the fact that licences of this class would be awarded exclusively to public bodies suggests that they are issued with public interest in mind (conversation with Prof. J.-G. Castel, Osgoode Hall Law School, 10 February 1997).

⁵⁰ That is the position I argued against in Part II, above.

⁵¹ Article 31, entitled “Other Use Without Authorization of the Right Holder,” states:

Where the law of a Member allows for other use of the subject matter of a patent without the authorization of the right holder, including use by the government or third parties authorized by the government, the following provisions shall be respected:

(a) authorization of such use shall be considered on its individual merits;

(b) such use may only be permitted if, prior to such use, the proposed user has made efforts to obtain authorization from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time. This requirement may be waived by a Member in the case of a national emergency or other circumstances of extreme urgency or in cases of public non-commercial use. In situations of national emergency or other circumstances of extreme urgency, the right holder shall, nevertheless, be notified as soon as reasonably practicable. In the case of public non-commercial use, where the government or contractor, without making a patent search, knows or has demonstrable grounds to know that a valid patent is or will be used by or for the government, the right holder shall be informed promptly;

(c) the scope and duration of such use shall be limited to the purpose for which it was authorized, and in the case of semi-conductor technology shall only be for public non-commercial use or to remedy a practice determined after judicial or administrative process to be anti-competitive;

(d) such use shall be non-exclusive;

respectively. If this position prevails, previous relatively broad compulsory licensing powers would have to be constrained by the stricter criteria set out in these articles.

Under *TRIPS*, article 31 and *NAFTA*, article 1709:10, grants of compulsory licences would be limited to situations where, among other things:⁵² the applicant previously attempted to secure a licence from the patentee on reasonable commercial terms and conditions;⁵³ the licence is non-exclusive;⁵⁴ the license is predominantly for the supply of the domestic market;⁵⁵ the licence terminates when the circumstances that

(e) such use shall be non-assignable, except with that part of the enterprise or goodwill which enjoys such use;

(f) any such use shall be authorized predominantly for the supply of the domestic market of the Member authorizing such use;

(g) authorization for such use shall be liable, subject to adequate protection of the legitimate interests of the persons so authorized, to be terminated if and when the circumstances which led to it cease to exist and are unlikely to recur. The competent authority shall have the authority to review, upon motivated request, the continued existence of these circumstances;

(h) the right holder shall be paid adequate remuneration in the circumstances of each case, taking into account the economic value of the authorization;

(i) the legal validity of any decision relating to the authorization of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(j) any decision relating to the remuneration provided in respect of such use shall be subject to judicial review or other independent review by a distinct higher authority in that Member;

(k) Members are not obliged to apply the conditions set forth in subparagraphs (b) and (f) where such use is permitted to remedy a practice determined after judicial or administrative process to be anti-competitive. The need to correct anti-competitive practices may be taken into account in determining the amount of remuneration in such cases. Competent authorities shall have the authority to refuse termination of authorization if and when the conditions which led to such authorization are likely to recur;

(l) where such use is authorized to permit the exploitation of a patent ("the second patent") which cannot be exploited without infringing another patent ("the first patent"), [several] additional conditions shall apply.

⁵² *NAFTA*, art. 1709:10(l) is more narrow in scope than *TRIPS*, art. 31(l) inasmuch as the former requires that licences granted to dependent patent owners must only be granted as "a remedy for an adjudicated violation of domestic laws regarding anti-competitive practices."

⁵³ *NAFTA*, art. 1709:10(b) and *TRIPS*, art. 31(b).

⁵⁴ *NAFTA*, art. 1709:10(d); and *TRIPS*, art. 31(d).

⁵⁵ *NAFTA*, art. 1709:10(f); and *TRIPS*, art. 31(f).

lead to its being granted in the first place cease to exist;⁵⁶ and the patentee is remunerated on the basis of economic value of the authorization.⁵⁷

While countries may still be able to structure useful compulsory licensing provisions in compliance with these articles, they are definitely more restrictive than was previously allowed for under the *Paris Convention, 1967* article 5(A).⁵⁸

Consequently, if articles 31 and 1709:10 were the sole source of compulsory licensing authority in *TRIPS/NAFTA*, a problem would arise, given that *TRIPS* and *NAFTA* are supposed to be consistent with the *Paris Convention, 1967*, including article 5(A). This potential problem of disagreement between the *Paris Convention* and *TRIPS/NAFTA* can be avoided however, on the basis of the argument that a more generous compulsory licensing scheme can also be grounded in article 30 of *TRIPS* and article 1709:6 of *NAFTA*.

C. *The Arguments in Favour of the Status Quo*

1. Compulsory licensing should fall under *TRIPS*, article 30 and *NAFTA*, article 1709:6

Based on a “literal interpretation according to the ordinary meaning of the words” in the respective *NAFTA* and *TRIPS* texts, it can be argued that national legislation providing for compulsory licensing is feasible under articles 30 and 1709:6.⁵⁹ *TRIPS*, article 28 elaborates the “Rights Conferred” on patent holders.⁶⁰ Article 30 provides for

⁵⁶ *NAFTA*, art. 1709:10(g); and *TRIPS*, art. 31(g).

⁵⁷ *NAFTA*, art. 1709:10(h); and *TRIPS*, art. 31(h).

⁵⁸ For example, arguably nothing in the *Paris Convention* prevents situations such as existed in Canada prior to the 1987 *Patent Act* amendments, *supra* note 3, where compulsory licences were granted independent of the patentees’ ability to supply the local market, the licences were exclusive, the rate of remuneration was set by legislative fiat, not by market value assessments, and there was no provision for conditions subsequent to the grant of the licence for its having been rescinded.

⁵⁹ Castel, *supra* note 38 at 12.

⁶⁰ Art. 28, entitled “Rights Conferred,” states:

1. A patent shall confer on its owner the following exclusive rights:

(a) where the subject matter of a patent is a product, to prevent third parties not having his consent from the acts of: making, using, offering for sale, selling, or importing for these purposes that product [footnote omitted];

“Exceptions to Rights Conferred.”⁶¹ It is clear based upon the ordinary meaning of these words that limitations to article 28 patent rights would be vested in article 30. It is fair to conclude, therefore, that compulsory licences (if they are actually allowed within the framework of the agreement), as limitations on patent rights, would fall within the intended meaning of articles 30 and 1709:6.⁶²

NAFTA articles 1709:5 and 1709:6 are almost identical to *TRIPS* articles 28 and 30, respectively. Consequently, the same argument would apply that 1709:6 is the article under whose aegis compulsory licensing was intended to fall.⁶³

2. Interpreting *TRIPS*, article 30 and *NAFTA*, article 1709:6

It was established in the previous section that *if* compulsory licenses were to be allowed within *NAFTA* and *TRIPS*, they would fall under articles 30 and 1709:6. It still remains to be determined however, under what circumstances those articles will actually allow compulsory licensing. Unfortunately, articles 30 and 1709:6 are rife with ambiguous phrases, the meanings of which are critical to this analysis. Consequently, I have dedicated the following analysis to determining the meaning of four crucial phrases found in articles 30 and 1709:6: 1) “limited exceptions;” 2) “normal exploitation of a patent;” 3) “legitimate interests of patent owners”(which I shall treat as synonymous with “normal exploitation”); and 4) “legitimate interests of third parties.”⁶⁴

TRIPS article 8 provides a more complete picture of what may be intended in article 30 by “legitimate interests of third parties.” Article 8 sets out a number of considerations, or principles, that need to be taken

(b) where the subject matter of a patent is a process, to prevent third parties not having his consent from the act of using the process, and from the acts of: using, offering for sale, selling, or importing for these purposes at least the product obtained directly by that process.

2. Patent owners shall also have the right to assign, or transfer by succession, the patent and to conclude licensing contracts.

⁶¹ Art. 30, “Exceptions to Rights Conferred” states “Members may provide limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.”

⁶² Castel, *supra* note 38 at 12.

⁶³ This position is weakened somewhat however, by the fact that the *NAFTA* articles are not entitled “Rights Conferred,” and “Exceptions to Rights Conferred,” as the *TRIPS* articles are.

⁶⁴ *Supra* note 43 and 61.

into account when a country adopts intellectual property policy. These considerations are not directly related to the patentee, but rather focus on the overall domestic national interest as it may be affected by strong patent protections. Article 8 specifies that states may take measures to serve the following public interests: 1) protection of public health and nutrition; 2) the promotion of public interest sectors of vital importance to socio-economic and technological development; 3) protection against unreasonably restrained trade; and 4) protection against practices that adversely affect the international transfer of technology.⁶⁵ I argue that these four public interest considerations should be included within the meaning of “legitimate interests of third parties” set out in article 30 and they must be taken into account when considering what patent right exceptions can be created within the meaning of article 30.

Article 1709:8 of *NAFTA*, read together with article 1709:6, likewise clarifies what the *NAFTA* drafters may have intended by “limited exceptions” in article 1709:6. Article 1709:8 states that a “party may revoke a patent only when ... *the grant of a compulsory license* has not remedied the lack of exploitation.”⁶⁶ Article 1709:8 juxtaposes the remedies of compulsory licensing and forfeiture; it is clear from the context that, of the two remedies, the drafters considered compulsory licensing to represent the more limited exception to patent rights. I argue, therefore, that compulsory licensing should be considered as one of the “limited exceptions” to be considered in article 1709:6.

TRIPS, articles 30 and 31 provide some interpretive guidelines for what the agreement’s drafters may have intended by “limited exceptions” in article 30. The title of article 31 of *TRIPS* is “Other Use Without Authorization of the Right Holder.” An interpretative footnote to the title confirms that “other use” refers to article 30.⁶⁷ There is no comma between “use” and “without” in the title. If there were such a comma, the implication would be that the article 31 “uses” were distinct from article 30 “uses” *because they involved situations without the patentee’s authorization*. Since there is no such comma, however, the only fair reading of the text requires the conclusion that article 30 also involves “exceptions” without the patentee’s authorization or consent. Of course, one of the most obvious examples of such an unauthorized exception is compulsory licensing.

⁶⁵ *Supra* note 37.

⁶⁶ *Supra* note 43 [emphasis added].

⁶⁷ *Supra* note 51.

One might object that since articles 30 and 31 are clearly meant to be mutually exclusive, they cannot both include compulsory licensing within their intended meanings. I admit that the articles are mutually exclusive; and I will argue in the following section that the *classes* of compulsory licensing they deal with *are* mutually exclusive.⁶⁸

Having exhausted the interpretive resources within the *TRIPS* and *NAFTA* agreements (*i.e.*, other provisions within the respective treaties) to discern the ambit of articles 30 and 1709:6, I will now rely on outside sources, specifically the history of the *Paris Convention*. Ultimately, I argue that whatever ambiguity remains with respect to the meaning of 1) “normal exploitation,” and patentees’ “legitimate interests”; 2) “limited exceptions”; and 3) interests of third parties is clarified by reading those phrases in harmony with article 5 of the *Paris Conventions, 1883 to 1967*.

D. *The First Compulsory Licences*

The earliest known attempt to legislate compulsory licensing came in the form of a bill (which was subsequently defeated) before the United States Senate in 1790. The bill proposed that compulsory licences be granted when patentees had failed to provide adequate supply of the patented subject, or had charged too high a price.⁶⁹ The next documented attempt to introduce compulsory licensing arose in the context of the 1873 Vienna Congress, which was one of the preliminary negotiation rounds that culminated in the *Paris Convention, 1883*. Although no binding legal instrument was produced by the Congress, the parties resolved that compulsory licences should be made available where the “public interest” required it.⁷⁰ This provision was adopted into German law in 1877.⁷¹

Compulsory licensing was not, however, included in the *Paris Convention, 1883*. In fact, it was not until the 1925 Revision Conference of the Hague that there is any mention of compulsory licensing in the *Paris Convention*. Pursuant to the amended article 5 of the Hague Revisions, member countries were authorized to take necessary legislative measures to “prevent the abuses which might result from the

⁶⁸ In anticipation of the argument below, I shall provide the conclusion here: class 1 and 2 compulsory licences fall within the meaning of art. 30; class 3 compulsory licences probably fall within the meaning of art. 31, *supra* note 51.

⁶⁹ Penrose, *supra* note 24 at 165-66.

⁷⁰ *Ibid.* at 47.

⁷¹ *Ibid.* at 166.

exclusive rights conferred by the patent, for example, failure to work.”⁷² Such legislation could not invoke forfeiture, however, “unless the grant of compulsory licenses [was] insufficient to prevent such abuses.”⁷³

1. ... as a remedy for non-working (class 1)

Prior to 1925, the only remedy available for non-working, pursuant to the *Paris Conventions, 1883, 1900, and 1911* was forfeiture.⁷⁴ Article 5(3) of the *Hague Revision, 1925* of the *Paris Convention*, substituted compulsory licensing for forfeiture as a remedy for patentee abuses (including non-working). Forfeiture was still an available remedy, but only after attempts through compulsory licensing had failed.

The introduction of mandatory licensing was not achieved without controversy. Mandatory licensing represented a compromise⁷⁵ between the most industrialized countries, led by the United States, who were pushing for the complete eradication of “working,” and less industrialized countries (the most vocal being Japan, Yugoslavia, and Poland) who preferred the *status quo*. One of the primary fears of the latter group was that the right to grant compulsory licences to domestic licensees would be useless because the potential local licences lacked sufficient technical capability to “take on” the patented production or application in the first place.⁷⁶

2. ... as a remedy for other “abuses” (class 2)

While the less developed countries’ resistance to the introduction of compulsory licensing was defeated, they were not entirely disappointed with the outcome of the 1925 Hague Revision Conference. While they lost direct access to their most forceful remedy for non-working (forfeiture), the *Convention* did extend the application of

⁷² *Paris Convention, 1925*, art. 5(2). See Appendix, below.

⁷³ *Ibid.* art. 5(3).

⁷⁴ See Appendix, below and the discussion of local working, above.

⁷⁵ S. Patel, “Can the Intellectual Property System Serve the Interests of Indigenous Knowledge?” in S.B. Brush & D. Stabinsky, eds., *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights* (Washington, D.C.: Island Press, 1996) 305 at 312.

⁷⁶ Anderfelt, *supra* note 15 at 80 and 89.

the new remedy (compulsory licensing) to a broader range of actionable “abuses.”⁷⁷

“Abuse” has been widely interpreted across a number of judicial jurisdictions, including situations where patents were being worked, but not sufficiently to satisfy local demand, or at exorbitant prices.⁷⁸ The British *Patents and Designs Act, 1949* for example, allowed for the grant of compulsory licenses when demand for a patented article was not being met on reasonable terms, or when the demand was being met “to a substantial extent by importation,” or when the commercial working of a patent was hindered by the importation of the article.⁷⁹

3. ... in the public interest (class 3)

Many countries have also developed laws whereby they may grant compulsory licences—despite there being no evidence of abuse by the patentee—if they consider it is in the public interest to do so. In Germany, for example, in the early and middle part of this century, compulsory licences were granted to reduce the cost of vital goods, ensure adequate supply to the domestic market, prevent plant failures, and to improve the balance of trade by encouraging domestic, export industries.⁸⁰ Until 1991, Canadian patent legislation allowed for compulsory licences for pharmaceuticals in the absence of proof of abuse by the original patentee.⁸¹ Between 1987 and 1991 the Canadian *Patent Act* provided for a longer grace period during which time patentees were free from the threat of compulsory licenses if the patented pharmaceuticals contained active compounds manufactured in Canada. This extra protection was afforded by way of incentive to further public policy goals and was independent of any other criterion for judging patentee behaviour.⁸²

Georg Bodenhausen confirms that the use of compulsory licensing to advance the public policy interests beyond simply ensuring

⁷⁷ See art 5(3), *Hague Revisions* in Appendix, below.

⁷⁸ Penrose, *supra* note 24 at 171.

⁷⁹ *Ibid.* at 181.

⁸⁰ *Ibid.* at 183.

⁸¹ *Patent Act*, S.C. 1923, c. 69; *Patent Act*, R.S.C. 1952, c. 203, as am. by *An Act to amend the Patent Act*, S.C. 1968-69, c.55; and the *Patent Act, Trade Marks Act and Food and Drugs Act Amendment*, S.C. 1968-69, c. 49.

⁸² See *Patent Act* amendments, *supra* note 3.

working falls legitimately within the framework of article 5 of the *Paris Convention, 1967*.

The provisions in paragraph (2) ... do not deal with measures other than those whose purpose is to prevent the abuses referred to. The member States are therefore free to provide analogous or different measures, for example, compulsory licenses on conditions other than those indicated in paragraph (4) in other cases where the public interest is deemed to require such measures. This may be the case when patents concern vital interests of the country in the fields of military security or public health or in the case of so-called "dependant patents" etc.⁸³

Since 1925, through three Revision Conferences (1934, 1958, and 1967) compulsory licensing has been specifically designated in the *Paris Conventions* as the primary remedy for abuses, including non-local working. It has also been used by a variety of countries, without regulated uniformity, to promote the "public interest" even in cases where there has not been abuse.

4. The relationship of the *Paris Convention* to *TRIPS* and *NAFTA*

An analysis of the relationship of the *Paris Convention, 1967* to *TRIPS* and *NAFTA*, has already been rehearsed in Part II(C)(2), above. I will emphasize here, however, that article 5 of the *Convention* pertains to the same subject matter as articles 30 and 1709:6 of *TRIPS* and *NAFTA*, respectively. All three articles deal with exceptions to patent rights which are provided for in other articles, or subsections. I argue that this similarity, coupled with the references to the *Paris Convention* in both the *NAFTA* and the *TRIPS* articles above, provides an adequate basis upon which to proceed with the analysis.

I argue that, in light of the historical development of compulsory licensing set out above, the only reasonable conclusion is that the use of compulsory licenses as a remedy for 1) non-local working, and 2) "abuses," constitutes "normal" limits on patentee rights. Since the 1925 Hague Revision Conference, compulsory licences have been available both for non-working, and for other, broader based, "abuses." It would be unfair to conclude, on the basis of such evidence, that compulsory licences for these two uses constituted an unreasonable prejudice to the legitimate interests of the patent owner.

It follows, therefore, that compulsory licensing for 1) non-working, and, 2) other patentee abuses, fall within the meaning of articles 30 and 1709:6.

⁸³ Bodenhausen, *supra* note 26 at 70 [emphasis added].

It is not so clear, however, that the grant of compulsory licences in the public interest, *where no abuse has been established* (class 3), is an equally well-established practice, or that it has enjoyed equal support among the *Paris Convention* members. The evidence is equivocal. As Bodenhausen stated in the passage cited above,⁸⁴ countries were free to grant mandatory licences in the public interest (without proof of abuse) pursuant to the *Paris Convention*, *because the Convention was silent on the issue*. The record of countries granting such licences is uneven. Consequently, I cannot argue with equal assurance that the third class of compulsory licences is *normal*, and that it does not “unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.” I am not able to conclude, therefore, whether or not compulsory licensing in the public interest without proof of abuse falls within the intended meaning of articles 30 and 1709:6.

In the alternative, if mandatory licensing in the name of the public interest (absent proof of abuse) is not intended to fall within the meaning of articles 30 and 1709:6, it would fall within the meaning of articles 31 and 1709:10.

In this context, once again, *TRIPS* provides a better set of interpretive tools than does *NAFTA*. As noted above, *TRIPS* article 31 (unlike article 1709:10) has a title and an interpretive footnote. The title is “Other Use Without Authorization of the Right Holder” and the footnote confirms that articles 30 and 31 are mutually exclusive.⁸⁵ I argue that mandatory licensing in the public interest without proof of abuse is an “other use without authorization of the right holder” exclusive of the first two classes of compulsory licences I have identified.

While it would be interesting to enter into an analysis regarding the limits of the substantive provisions that could be crafted pursuant to articles 31 and 1709:10, it is not within the scope of this paper to do so. It can be said with confidence that articles 31 and 1709:10 would substantially curtail the freedom many states have enjoyed in granting compulsory licences.⁸⁶ Unfortunately, a detailed examination of whether a state’s “public interest” can be effectively advanced in accordance with these articles will have to be set aside for later research.

⁸⁴ *Ibid.*

⁸⁵ *Supra* note 51.

⁸⁶ See Part III(B), above and accompanying footnotes.

5. Conclusion regarding compulsory licensing

On the basis of the above analysis, it is reasonable to conclude that *NAFTA* and *TRIPS* allow compulsory licensing as a remedy for non-local working and other, more broadly defined abuses (such as insufficient working, and inadequate supply of local market). Compulsory licensing in these instances would fall within the meaning of *TRIPS*, article 30 and *NAFTA*, article 1709:6.⁸⁷ Neither of these two provisions sets out concrete guidelines with respect to the conditions under which such licenses could be granted. Consequently, national legislation passed with respect to these two classes of compulsory licences could be relatively broad.

It is not so clear however, whether compulsory licensing in the public interest, without proof of abuse, would similarly fall within the meaning of the same articles. It is more likely that this third class of compulsory licensing would fall within the aegis of *TRIPS* article 31 and *NAFTA* article 1709:10. Consequently, compulsory licensing in the public interest, in the absence of proof of patentee abuse, would be subject to the limitations set out in that article.⁸⁸

IV. HOW IS BIODIVERSITY RELEVANT TO PATENTS?

A. *A Short Introduction to the CBD*

It might not be immediately obvious how a convention that is (judging by its title) concerned with environmental protection impacts upon the international regulation of patent law.⁸⁹ Therefore, I will provide a brief summary of how these two seemingly distinct areas of law have come to intersect.

⁸⁷ *Supra* note 61 and 43 respectively.

⁸⁸ The conclusion might be different if one were to accept the notion, as suggested in note 49, *supra*, that there is a fourth distinct class of compulsory licences—those which are granted to government. In this case, one could argue that this fourth class of compulsory licence is sufficiently distinct from the other three classes to come under the aegis of arts. 31 and 1709:10 alone. According to this reasoning, one could add compulsory licences, without proof of abuse, granted to private sector third parties into the list of classes falling under arts. 30 and 1709:6. This would have the practical effect of allowing governments broader potential field of justifications and conditions under which they could grant compulsory licences.

⁸⁹ See P. Gormely, “Compulsory Patent Licences and Environmental Protection” (1993) 7 *Tul. Env.’l L.J.* 131 at 132, describing patents as “environmentally neutral.”

Plant breeders, pharmaceutical manufacturers,⁹⁰ and the biotechnical industries generally rely upon the biological diversity of southern developing countries for inputs into their commercial activities. For example, plant breeders cull disease resistant genes from traditional plant varieties still being used by subsistence farmers in developing countries to introduce desired qualities into elite commercial plant varieties. Pharmaceuticals are often developed from the active compounds of plants located in developing countries with high levels of biological diversity. Approximately 90 per cent of the genetic resources used in agricultural production originate in the third world.⁹¹ It is estimated that 50 per cent of all prescriptions filled in the United States are derived from naturally occurring compounds⁹² In Europe, Japan, and North America, the sales of pharmaceuticals derived from plants in 1989 totalled 43 billion dollars.⁹³

Yet, in spite of the increased commercial value of biodiversity as a whole, the world stock of biodiversity is diminishing. It is estimated that there are currently between 10 to 30 million species in the world, out of which approximately 1.4 million have been identified.⁹⁴ Tropical forests house somewhere between 50 and 90 per cent of this total.⁹⁵ Yet rainforests are being destroyed at a rate of approximately 142,000 square kilometres per year.⁹⁶ Approximately 27,000 species are extinguished

⁹⁰ Agro-corporations are the most reliant upon biodiversity for the discovery and development of new products. The pharmaceutical industry ranks second: see S. Kadidal, "Plants, Poverty, and Pharmaceutical Patents" (1993) 103 Yale L.J. 223 at 227.

⁹¹ *Biotechnology Newswatch*, 16 October 1992 cited in Gormely, *supra* note 89 at 152, note 100.

⁹² Kadidal, *supra* note 90 at 224.

⁹³ W.V. Reid, *et al.*, "A New Lease on Life" in *Biodiversity Prospecting* (Washington, D.C.: World Resources Institute, 1993) 1 at 12.

⁹⁴ E.L. Highes, "Forests, Forestry Practices and the Living Environment" in S.P. Johnson, ed., *Global Forests and International Environment Law* (The Hague: Kluwar Law International, 1996) 79 at 107.

⁹⁵ World Resources Institute, *Global Biodiversity Strategy: Guidelines for Action to Save Study, and Use the Earth's Biotic Wealth Sustainably and Equitably* (Washington D.C: World Resources Institute, 1992) at 7.

⁹⁶ *Ibid.* D. VanderZwaag & D. MacKinlay, "Towards a Global Forests Convention: Getting Out of the Woods and Barking up the Right Tree" in S.P. Johnson, ed., *Global Forests and Environmental Law* (London: Kluwar Law International, 1996) 1 at 9, cite that the "annual tropical deforestation rate in 1980 was estimated at 11.3 million ha or 0.58 percent/year compared to the 1990 estimate of 17 million ha or approximately 1 percent."

each year, and the rate of extinction is growing exponentially.⁹⁷ Agricultural or crop diversity is also being diminished at alarming rates. Leading commentators on the subject generally agree that the primary cause of the agricultural bio-genetic erosion is the replacement of genetically heterogenous, traditional crops with elite, genetically uniform plant varieties bred for high yielding commercial agriculture.⁹⁸

Obviously, international law and market forces have failed to provide adequate incentives, or punitive measures, in order to protect against the further depletion of biodiversity.⁹⁹ Instead, most current incentives, particularly in the developing world in the areas of highest biological diversity, encourage “short term exploitation of resources.”¹⁰⁰ Local communities and national governments controlling areas of high biological diversity are driven to their destruction by short term investment incentives, such as mining, timber, and ranching—all activities that tend toward the eradication of biological diversity.¹⁰¹ Similarly, there are currently insufficient incentives for farmers using

⁹⁷ K.E. Moore, “Inclusion of Biodiversity Protection Within a Forest Treaty” in S.P. Johnson, ed., *Global Forests and International Environment Law* (The Hague: Kluwar Law International, 1996) 126 at 128.

⁹⁸ J. Holden, J. Peacock, & T. Williams, *Genes, Crops and the Environment* (Cambridge: Cambridge University Press, 1993) at 29-32 and at 11, where the author establishes direct correlation between breeding effectiveness and rates of biogenetic loss, “the rate of loss [of crop biological diversity] accelerated with the increasing effectiveness of breeding.” See also, M.L. Olfield & J.B. Alcorn, “Conversation of Traditional Agroecosystems” in M.L. Olfield & J.B. Alcorn, eds., *Biodiversity: Culture, Conservation and Ecodevelopment* (Boulder, Colo.: Westview Press, 1993) at 39 where the authors argue that “the principle cause of genetic erosion has been the widespread adoption of modern crop cultivators within areas of ancient agriculture.” See C. Fowler & P. Mooney, *Shattering: Food, Politics & the Loss of Genetic Diversity* (Tucson: University of Arizona Press, 1990) at 75, where the authors state the replacement is ten times more likely to be the cause of crop variety extinction than any other cause. See also M.L. Oldfield, *The Value of Conserving Genetic Resources* (Sunderland, Mass: Sinauer Assoc., 1989) at 14.

⁹⁹ Art. 2 of the *CBD*, *supra* note 5, defines “biological diversity” as “the variability among living organisms from all sources, including, *inter alia*, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

¹⁰⁰ Gormely, *supra* note 89 at 137 and 154-55.

¹⁰¹ “[The] [c]onventional approach to trade is also inherently unsustainable in that it depends on constantly expanding extraction of resources and consumption and production of goods, which brings it up against fixed ecological constraints”: see D.R. Downes, “Global Trade, Local Economies, and the Biodiversity Convention” in W. Snape, ed., *Biodiversity and the Law* (Washington, D.C.: Island Press, 1996) 202 at 208-09. See also V. Shiva, *Monocultures of Mind: Perspectives on Biodiversity and Biotechnology* (London: Zed Books, 1993), regarding the pernicious effects of export-oriented crop restructuring programs on biodiversity, that is, the replacement of a variety of crops and locally valuable “weeds” by a single crop with extraordinarily narrow genetic variability.

biologically diverse traditional crops to maintain this practice, when commercial incentives tend to push in the direction of crop replacement with commercial mono-crops.

The *CBD* seeks to create a new form of partnership between the developed and developing countries, wherein the developing country will receive incentives from the developed world to preserve genetic resources¹⁰² for the benefit of all. The *CBD* represents a novel attempt to address both environmental and trade issues in the same document.

It is not surprising, perhaps, that a project of such global proportions has been besieged by interest groups whose agendas are incommensurable. As discussed in the subsequent analysis of the *CBD*, the negotiating parties never did reach a compromise position on issues that would have been necessary for the *Convention* to be internally coherent. Consequently, the *CBD*'s provisions are often contradictory, undermining in one paragraph a right or obligation that has been created in another.

Interpretations of the overall effect of the *CBD* are numerous and widely divergent. At one end of the spectrum is the notion that the *CBD* recognizes new intellectual property rights in raw, genetic resources in developing countries.¹⁰³ At the opposite end, some commentators claim that the sole achievement of the *CBD* was to advance the cause of biotechnical industries by going beyond *TRIPS* in recognizing the patentability of advanced life forms (which *TRIPS* article 27:2 leaves open to individual state's discretion).

B. *Highlights of the Biodiversity Convention Relevant to Local Working and Compulsory Licensing*

1. Objectives

Article 1 states that the *CBD*'s objectives are: 1) the conservation, and sustainable use of biological diversity; and 2) "*the fair and equitable sharing of the benefits arising out of the utilization of genetic resources*" The "fair sharing" is to be achieved by a) providing appropriate access to genetic resources, and b) providing "*appropriate transfer of relevant*

¹⁰² The *CBD*, *supra* note 5, art. 2, defines "genetic resources" as "genetic material of actual or potential value." "Genetic material," in turn, is defined as "any material of plant, animal, microbial or other origin containing functional units of heredity."

¹⁰³ Kadidal, *supra* note 90 at 228.

*technologies*¹⁰⁴ While article 1 does not explicitly state whom these objectives are meant to affect, it is obvious from the overall structure of the agreement that it is the developing countries who are meant to “provide access,” and the developed countries who are meant to “provide technology.”

2. Access to genetic resources

Perhaps the most significant and least controversial achievement in the *CBD* is the conceptual shift in control over genetic resources which is set out in article 15.¹⁰⁵ Historically, “genetic resources” have been thought of as part of the “common heritage of humankind,”¹⁰⁶ belonging to no one, and free for use by all. Consequently, drug companies, plant breeders, and biotechnology industries have drawn on the genetic

¹⁰⁴ [Emphasis added].

¹⁰⁵ Art. 15, entitled “Access to Genetic Resources” states:

1. Recognizing the sovereign rights of States over their natural resources, the authority to determine access to genetic resources rests with the national governments and is subject to national legislation.

2. Each Contracting Party shall endeavour to create conditions to facilitate access to genetic resources for environmentally sound uses by other Contracting Parties and not to impose restrictions that run counter to the objectives of this Convention.

3. For the purpose of this Convention, the genetic resources being provided by a Contracting Party, as referred to in this Article and Articles 16 and 19, are only those that are provided by Contracting Parties that are countries of origin of such resources or by the Parties that have acquired the genetic resources in accordance with this Convention.

4. Access, where granted, shall be on mutually agreed terms and subject to the provisions of this Article.

5. Access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.

6. Each Contracting Party shall endeavour to develop and carry out scientific research based on genetic resources provided by other Contracting Parties with the full participation of, and where possible in, such Contracting Parties.

7. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, and in accordance with Articles 16 and 19 and, where necessary, through the financial mechanism established by Articles 20 and 21 with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources with the Contracting Party

¹⁰⁶ *Kadidal*, *supra* note 90 at 228.

resources of developing countries without providing any form of remuneration. Article 15 fundamentally alters the relationship of the rest of the world to the genetic resources within a specific country. By recognizing that national governments alone have “authority to determine access to genetic resources,” article 15 shifts genetic resources out of the so-called “common heritage of humankind,” and makes them subject to state control.¹⁰⁷

This control is qualified (at least notionally) by subsequent paragraphs of article 15 which require that states “create conditions to facilitate access to genetic resources ... and not to impose restrictions that run counter to the incentives of [the] Convention.” In the final result, however, article 15 represents a significant shift in control over genetic resources in favour of individual states.

3. Transfer of technology

Certainly the provisions dealing most directly with the subject of technology transfers are found in article 16.¹⁰⁸ They are also the most

¹⁰⁷ See M. Powers, “The United Nations Framework Convention on Biological Diversity: Will Biodiversity Preservation be Enhanced Through its Provisions Concerning Biotechnology Intellectual Property Rights?” (1993) 12 Wis. Int’l L.J. 103 at 111; and Kadidal, *supra* note 90 at 321, to the effect that “establishing sovereign rights over natural resources is the opposite of treating them as the ‘common heritage of humanity.’”

¹⁰⁸ Art. 16, entitled, “Access to and Transfer of Technology,” states:

1. Each Contracting Party, recognizing that technology includes biotechnology, and that both access to and transfer of technology among Contracting Parties are essential elements for the attainment of the objectives of this Convention, undertakes subject to the provisions of this Article to provide and/or facilitate access for and transfer to other Contracting Parties of 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.

2. Access to and transfer of technology referred to in paragraph 1 above to developing countries shall be provided and/or facilitated under fair and most favourable terms, including on concessional and preferential terms where mutually agreed, and, where necessary, in accordance with the financial mechanism established by Articles 20 and 21. In the case of technology subject to patents and other intellectual property rights, such access and transfer shall be provided on terms which recognize and are consistent with the adequate and effective protection of intellectual property rights. The application of this paragraph shall be consistent with paragraphs 3, 4 and 5 below.

3. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that Contracting Parties, in particular those that are developing countries, which provide genetic resources are provided access to and transfer of technology which makes use of those resources, on mutually agreed terms, including technology protected by patents and other intellectual property rights, where necessary,

controversial. On one hand, the drafters begin each paragraph with bold statements about the obligations of developed countries to transfer technology. The forcefulness of these statements, however, is repeatedly undercut by the insertion of mollifying phrases such as “on mutually agreed upon terms,”¹⁰⁹ and “consistent with the protection of intellectual property rights.”

For example, article 16, paragraph 1, states that, “access to and transfer of technology ... are essential elements to the attainment of the objectives of this Convention,” and that contracting parties undertake to facilitate the transfer of “technologies that are relevant to the conservation of biodiversity” and those that “make use of genetic resources”. Interpreted on its own, it would be reasonable to conclude that this provision supported the inclusion of working requirements and compulsory licensing in national legislation. The strength of this paragraph, however, is undermined by paragraph 2 which states that access and transfer of technology in paragraph 1 shall be on “mutually agreed terms,” and that patented technologies shall be treated “consistent with [the] protection of intellectual property rights.”

In a similar vein, article 16, paragraph 3, requires that states shall pass legislation to ensure adequate transfer of technology to developing countries, but goes on to state that such legislation would have to make allowance for “mutually agreed upon terms.”

In paragraph 4, the *CBD* states that each party shall pass legislation to ensure that the private sector “facilitates” the transfer of technology. On one hand, this provision seems likely to include compulsory licensing, or mandatory licensing within its meaning. On the other hand, it has been observed that, if this section were really meant to promote

through the provisions of Articles 20 and 21 and in accordance with international law and consistent with paragraphs 4 and 5 below.

4. Each Contracting Party shall take legislative, administrative or policy measures, as appropriate, with the aim that the private sector facilitates access to, joint development and transfer of technology referred to in paragraph 1 above for the benefit of both governmental institutions and the private sector of developing countries and in this regard shall abide by the obligations included in paragraphs 1, 2 and 3 above.

5. The Contracting Parties, recognizing that patents and other intellectual property rights may have an influence on the implementation of this Convention, shall cooperate in this regard subject to national legislation and international law in order to ensure that such rights are supportive of and do not run counter to its objectives.

¹⁰⁹ See M. Urbanski, “Chemical Prospecting, Biodiversity Conservation, and the Importance of International Protection of Intellectual Property Rights in Biological Materials” (1995) 2 *Buff. J. Int’l L.* 131 at 169, where he states, “The effect of article 16 seems to send a message that parties should favor developing nations in the transfer of technology, but that they are not obligated in anyway to do so.”

compulsory licensing, the drafters would have replaced the word “facilitates” with “compels.”¹¹⁰ Once again, the ultimate meaning of the paragraph is made even more ambiguous by the additional proviso that it has to be read consistently with the previous paragraphs, wherein the continued protection for intellectual property rights is recognised.

In each case, the provisions double back upon themselves, ultimately shunting the responsibility for clarifying the state of international law on the subject to sources outside of the *CBD*.¹¹¹

It is possible however, that this circular tendency of the *CBD* to “outsource” lawmaking responsibility is broken by article 16, paragraph 5. This provision states that parties shall ensure that intellectual property rights are supportive of, and do not run counter to, the objectives of the *Convention*. This paragraph does not have to be read consistently with any others. Yet paragraph 2, discussed above, which recognizes the preservation of intellectual property rights, has to be read consistently with paragraph 5. Arguably, therefore, paragraph 5 overrides paragraph 2, and therefore the *CBD* recognizes the paramountcy of the need to transfer technology over patent protection. If this interpretation should prevail,¹¹² there would be strong grounds for

¹¹⁰ C.J. Tinkler, “Introduction to Biological Diversity: Law, Institutions, and Science” (1994) 1 *Buff. J. Int’l L.* 1 at 18. It would certainly be possible to argue, as in Parts II and III, above, that the history of patent law supports the notion that adequate and effective protection does not exclude compulsory licensing and working requirements. At the time of drafting the *Convention*, many countries did not extend patent protection to pharmaceuticals, and compulsory licences were widely available as a result of local non-working. Of course, in Canada at that time, we still had compulsory licensing without need of proof of lack of working. Only the United States did not have any working requirement, and attendant compulsory licence. It could be argued, in exactly the same manner as I argued with respect to art. 30 of *TRIPS*, that historical analysis reveals that mandatory licensing and working requirements are “normal” limits on the adequate and effective protection of patent rights.

¹¹¹ K. Bosselmann, “Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity” (1995) 7 *Colo. J. Int’l Env’tl. L. & Pol’y* 111 at 139.

¹¹² Articles 19(2) and 20 of the *CBD* provide further equivocal support for local working and compulsory licensing. Article 19(2) stipulates that the parties “shall take all practicable measures to promote and advance priority access on a fair and equitable basis by Contracting Parties, especially developing countries, to the results and benefits arising from biotechnologies based upon genetic resources provided by those contracting Parties.” But it then adds, “Such access shall be on mutually agreed terms.”

Article 20 is somewhat stronger, pledging developed countries to fund developing countries’ compliance with the *Convention*. Para. 4 is explicit that developing countries’ compliance with the *Convention* is contingent upon “the effective implementation by developed country Parties of their commitments under this convention related to financial resources and transfer of technology” Paragraph 5 states that the “parties shall take full account of the specific needs and special situation of least developed countries in their actions with regard to funding and transfer of technology.”

concluding that the *CBD* authorizes domestic legislation in developing countries with high levels of biological diversity requiring local working and compulsory licences,¹¹³ potentially in all three classes of mandatory licences.

4. Alternative legal outcomes of the *CBD*

The legal effect of article 16 is uncertain. It may or may not provide support for the notion that developing nations can, or should, require local working and compulsory licensing. Consequently, most commentators appear to have settled on the notion that the most plausible effect of the *CBD* arises out of the article 15 recognition that nations have control over their genetic resources. This recognition provides a legal platform from which developing nations can pass national “bio-access” legislation and negotiate contracts with foreign governments, or corporations, for access to their biodiversity. Such contractual agreements could include provisions for technology transfers, royalties, land rents, bio-prospecting fees¹¹⁴—whatever the market will bear.¹¹⁵

C. *The CBD’s Relation to The Paris Convention, TRIPS, and NAFTA*

Article 22 of the *CBD* states that the *Convention* does not affect the rights and obligations of other international agreements except to the extent that they would “cause a serious damage or threat to biological diversity.”¹¹⁶ The question of whether intellectual property rights

¹¹³ M. Chandler, “The Biodiversity Convention: Selected Issues of Interest to the International Lawyer” (1993) 4 *Colo. J. Int’l Envtl. L. & Pol’y* 141 at 155, 165; and D. Bell, “The 1992 Convention on Biological Diversity: The Continuing Significance of United States Objections at the Earth Summit” (1993) 26 *Geo. Wash. J Int’l L. & Econ.* 480 at 522-23.

¹¹⁴ C. Horton, “Protecting Biodiversity and Cultural Diversity Under Intellectual Property Law: Toward a New International System” (1995) 10 *J. Envtl. L. Spc. & Litig.* 1 at 36.

¹¹⁵ Bell, *supra* note 113 at 533.

¹¹⁶ Art. 22 of the *CBD*, entitled “Relationship with Other International Conventions,” states:

1. The provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity.

2. Contracting Parties shall implement this Convention with respect to the marine environment consistently with the rights and obligations of States under the law of the

constitute a threat to biological diversity is a matter of considerable controversy,¹¹⁷ and beyond the scope of this article. As far as I am concerned, however, these analyses tend to focus on *TRIPS*, and the *International Convention for the Protection of New Varieties of Plants* (*UPOV*), versions 1978 and 1991, to the exclusion of the *Paris Convention*. This exclusion is probably due to the fact that the *Paris Convention* does not impose minimum standards of protection, and does not create obligations to protect particularly sensitive and specific subject matters, such as plant varieties.¹¹⁹

Since there are no apparent reasons for believing that the *Paris Convention* may cause a serious threat to biodiversity, it is fair to conclude that the *CBD* does not affect the rights and obligations arising out of the *Paris Convention*.

Article 22 does not, however, govern the *CBD*'s relationship to *TRIPS* because *TRIPS* did not exist when the *CBD* came into force in December 1993. *TRIPS* furthermore, makes absolutely no mention of the *CBD*. It is necessary, therefore, to turn to the *Vienna Convention on the Law of Treaties*¹²⁰ for guidance in interpreting the relationship of the two agreements. Article 30, paragraph 2, of the *Vienna Convention* states that, with respect to agreements dealing with the "same subject matter":

When all the parties to the earlier treaty are parties to the later treaty but the earlier treaty is not terminated or suspended in operation under article 59, the earlier treaty applies only to the extent that its provisions are compatible with those of the later treaty.

Clearly then, based on the *Vienna Convention*, *TRIPS* would prevail over the *CBD*, and parties to both agreements would be obliged to comply with *TRIPS* where the two agreements applied equally to any given legal initiative.

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¹¹⁷ For arguments that there is a causal connection between intellectual property law and the erosion of plant genetic diversity, see G.S. Nijar, *TRIPS and Biodiversity: The Threat and Responses: A Third World View* (Penang: Third World Network, 1996) and R. Vellvé, *Saving the Seed: Genetic Diversity and European Agriculture* (London: Earthscan Publications, 1992). For excellent background information on the topic, see Fowler & Mooney, *supra* note 98; K. Bosselmann, "Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity" 7 *Colo. J. Int'l L. & Pol'y* 111; and Rural Advancement Foundation International (RAFI), "Utility Plant Patents: A Review of the U.S. Experience (1985-July 1995)" RAFI Communique, July/August 1995.

¹¹⁸ 815 U.N.T.S. 89 as revised at Geneva on 10 November 1972; on 23 October 1978 and on 19 March 1991, see UPOV Doc. No. DC/91/138, 19 March 1991.

¹¹⁹ *TRIPS*, *supra* note 1, art. 27(2)(b).

¹²⁰ *Vienna Convention on the Law of Treaties between States and International Organizations* 23 March 1986, 25 I.L.M. 543, reproduced from UN GAOR A/CONF.129/15 [hereinafter *Vienna Convention*].

The prevalence of *TRIPS* and *NAFTA* over the *CBD* could be checked, however, in instances where one argued successfully that, in fact, the agreements were not concerned with the “same subject matter,” in the words of the *Vienna Convention*. In keeping with this line of argument, it has been suggested, that because the *CBD*’s consideration of intellectual property rights is circumscribed by their relation to biodiversity conservation, the *CBD* and *TRIPS* are not dealing with the same subject matter.¹²¹ I do not intend to argue the point in this paper. It is sufficient to note that this is the point upon which one would determine whether *TRIPS* would override the *CBD*, or the *CBD* would enjoy a separate sphere of legal influence.

If *TRIPS* and *NAFTA* do, in fact, deal with the same subject matter, their provisions would overrule the *CBD*’s provisions. Consequently, even if the *CBD* did support domestic legislation requiring mandatory working and broad-based compulsory licensing, that support would be useless if that same legislation were found to be in contravention of *TRIPS* or *NAFTA*.

D. *One Last Chance: TRIPS Preamble*

While neither *TRIPS* nor *NAFTA* makes reference to the *CBD*, *TRIPS* does contain one passage which recognizes the special situation of developing countries. The *TRIPS* preamble includes the following statement: “Recognizing also the special needs of the least-developed country members in respect of maximum flexibility in the domestic implementation of laws and regulations in order to enable them to create a sound and viable technological base” This passage reflects the same concern as is expressed in article 16(5) of the *CBD*, that it may be necessary to reconsider rules that adversely affect the transfer of technology to developing countries. It is not, however, a sentiment which the drafters of *TRIPS* thought important enough to place in its own proper article. Certainly, this passage alone is not sufficient grounds to argue that the *TRIPS* should be read consistently with the *CBD*.

¹²¹ C. MacDougall & R. Hall, *Intellectual Property Rights and the Biodiversity Convention: The Impact of GATT, prepared for the Friends of the Earth (England, Scotland and N. Ireland) International Trade, Environment and Sustainability Campaign, 1996* citing the Centre for International Environmental Law, *The Biodiversity Convention and the TRIPS Agreement: The relationship of the Two Agreements in International Law* draft, 25 February 1994 [unpublished].

E. Conclusion Regarding the CBD

Despite the strong rhetorical commitments in some of the passages of the *CBD* to the enforcement of international technology transfers, the most likely conclusion is that the *CBD* does little to advance the cause of mandatory local working and compulsory licensing. The provisions within the agreement are, for the most part, self-defeating. In addition, the subsequent passage of *NAFTA* and *TRIPS*, without any provision for the recognition of the *CBD*, detracts substantially from the possibility of the *CBD* affecting international law regarding technology transfers in ways fundamentally different from what will be developed under *TRIPS* and *NAFTA*.

V. CONCLUSION

Based primarily on the arguments set out above, I can make four conclusions. First, I conclude that a state could still invoke local working requirements, as long as they were invoked after the three-year grace period prescribed in article 5 of the *Paris Convention, 1967*. Second, drawing from the arguments set out in Part III, above, I conclude that states still have a relatively broad discretion to grant compulsory licences as remedies for 1) non-local working, and 2) abuses such as insufficient working and exorbitant pricing. I further conclude that “the jury is still out” with respect to mandatory licensing in the public interest where there is no allegation of patentee abuse. The evidence appears to favour the conclusion that this particular compulsory licensing practice should fall within the meaning of article 31 of *TRIPS* and article 1709:10 of *NAFTA*. Consequently, compulsory licensing in the public interest could be circumscribed in accordance with the strictures of those articles.¹²²

Third, despite the grandiose phraseology of passages of the *CBD*, the agreement is of little practical use for countries who might seek to rely upon it as international legal support for the introduction of working requirements and broadly based compulsory licensing.

¹²² Again, it must be pointed out that another plausible conclusion exists based on the logic of my argument; that a fourth category of compulsory licences exists (*i.e.*, licences granted to government), and this category is sufficiently distinct from the prior three categories so that it would fall exclusively within the ambit of arts. 31 and 1709:10, therefore leaving the other three classes within the ambit of arts. 30 and 1709:6. This would have the practical effect of allowing countries relatively wide discretion to legislate compulsory licensing in furtherance of public policy goals, even in situations where there was no proof of abuse on the part of the patentee, as long as the licensee is in the private sector. See *supra* note 49.

Fortunately, such reliance is largely unnecessary, given the relative flexibility of *TRIPS* and *NAFTA* with respect to compulsory licensing and local working requirements.

Finally, based on the prior three conclusions, it is reasonable to conclude that countries which have recently surrendered relatively broad-based powers for granting compulsory licenses and for compelling local working have exceeded their obligations pursuant to both *TRIPS* and *NAFTA*.

From a practical standpoint, it may seem like a moot point that countries are allowed to invoke local working pursuant to *TRIPS* and *NAFTA*. Several countries have already long since voluntarily surrendered whatever legislation they had that required local working,¹²³ or at least stopped enforcing the requirement. One should not forget however, that part of the reason why these countries loosened their local working requirements in the first place was the ready availability of compulsory licences as introduced in the *Hague Revisions* of the *Paris Convention, 1925*.¹²⁴ The argument in this article regarding local work requirements will take on added significance if, contrary to the conclusion I urge in Part II, all compulsory licensing is determined to fall within articles 31 and 1709:10 of *TRIPS* and *NAFTA* respectively. If this should come to pass, the local working requirement would once again represent the best and most practical means by which a country could compel technology transfers. As the brief historical review in this article revealed, patentees prefer the possibility of being made the subject of the grant of a compulsory licence to the possibility of forfeiture for not working. If patent rights advocates are successful in their current lobbying efforts to restrict compulsory licensing, they may be faced with a “backlash” of local working requirements. It is my hope, that by demonstrating the continued possibility of local working, strong patents rights advocates will push less hard for the eradication of compulsory licences.

¹²³ For example, in 1969, Canada amended the *Patent Act* to allow compulsory licensees to import pharmaceuticals to supply the local market: see *supra* note 84.

¹²⁴ See *supra* note 80 and accompanying text.

APPENDIX

Texts relating to provisions concerning working obligations and sanctions against non-working and other abuses of the patent monopoly in the various *Convention* Texts:

Paris Convention, 1883

Article 5

(1) The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the States of the Union shall not entail forfeiture of the patent.

(2) Nevertheless, the patentee shall remain under the obligation to exploit his patent in accordance with the laws of the country into which he introduces the patented articles.

The Brussels Revision, 1900

Article 5

(1) (identical to the 1883 text)

(2) (identical to the 1883 text)

Final Protocol

3bis The patentee in each country shall not forfeit his patent for non-working until after a minimum period of three years from the filing of the application in the country in question and in case he cannot justify his inaction.

The Washington Revision, 1911

Article 5

(1) The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail forfeiture of the patent.

(2) Nevertheless, the patentee shall remain under the obligation to exploit his patent in accordance with the laws of the country into which he introduces the patented articles, but with the restriction that the patent may not be forfeited for nonworking in one of the countries of the Union until after a period of three years of the date of filing the application in that country and only in case the patentee cannot justify his inaction.

The Hague Revision, 1925

Article 5

(1) (identical to the 1911 text)

(2) Nevertheless, each contracting country shall have the right to take the necessary legislative measures to prevent the abuses which might result from the exclusive rights conferred by the patent, for example, failure to work.

(3) These measures shall not provide for forfeiture of the patent unless the grant of compulsory licenses is insufficient to prevent such abuses.

(4) In any case, the patent may not be subjected to such measures before the expiration of at least three years from the date of grant, or if the patentee proves the existence of legitimate excuses.

The London Revision, 1934

Article 5(A)

(1) The importation by the patentee into the country where the patent has been granted of objects manufactured in any of the countries of the Union shall not entail forfeiture of the patent.

(2) Nevertheless, each of the countries of the Union shall have the right to take the necessary legislative measures to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.

(3) These measures will only provide for the revocation of the patent if the granting of compulsory licenses shall not suffice to prevent these abuses.

(4) In any case an application for the grant of a compulsory license may not be granted before the expiration of three years from the date of the

grant of the patent, and this license may be granted only if the patentee fails to justify himself by legitimate reasons. No proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

The Lisbon Revision, 1958

Article A

(1) (identical to the 1934 text)

(2) Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exclusive rights conferred by the patent for example, failure to work.

(3) Forfeiture of the patent shall not be prescribed except in cases where the grant of compulsory licenses would not have been sufficient to prevent such abuses. No proceeding for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

(4) An application for a compulsory license may not be made on the ground of failure to work or insufficient working before the expiration of a period of four years from the filing of the patent application or three years from the date of the grant of the patent whichever period last expires; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory license shall be non-exclusive and shall not be transferable even in the form of the grant of a sublicense, except with that part of the enterprise or goodwill using such a license.

The Stockholm Revision, 1967

Article 5

A. (1) Importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail forfeiture of the patent.

(2) Each country of the Union shall have the right to take legislative measures providing for the grant of compulsory licenses to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example, failure to work.

(3) Forfeiture of the patent shall not be provided for except in cases where the grant of compulsory licenses would not have been sufficient to prevent the said abuses. No proceedings for the forfeiture or revocation of a patent may be instituted before the expiration of two years from the grant of the first compulsory license.

(4) A compulsory license may not be applied for on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent, whichever period expires last; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory license shall be non-exclusive and shall not be transferable, even in the form of the grant of a sub-license, except with that part of the enterprise or goodwill which exploits such license.

(5) The foregoing provisions shall be applicable, *mutatis mutandis*, to utility models.