CHAPTER III

NORMS AND STANDARDS OF PATENT PROTECTION UNDER THE PARIS CONVENTION

INTRODUCTION

A central feature of the intellectual property system prior to the TRIPS Texts has been the freedom of countries to shape their individual regimes so as to suit their own economic, social and developmental needs owing to the territorial nature of the rights granted. This approach has allowed for genuine differences among countries, differences which have now and then been the source of conflicts regarding the minimum standards which ought to exist in all countries. However, the increasing integration of the world economy has rendered more acute and more visible the effects of these differences in international trade and investment.¹ For the leading industrialised countries, the existence of the above-mentioned central feature became a disturbing factor as one of the most significant and distinctive feature of intellectual property is its ability to transcend national and geographical boundaries in a way that is simply not possible with tangible things. This aspect is further complicated by the internationalisation of scientific and technological activities of multinationals guided by global considerations.

This resulted in the adoption of common standards of protection in all countries in the TRIPS Text.

The scope of the present chapter is, however, limited to a study of the minimum international standards as has been provided under the Paris Convention for the Protection of Industrial Property. These continue to be relevant because even under the Agreement on TRIPS there is a general obligation to comply with the substantive provisions of the Paris Convention. Discussion has been focussed towards rules concerning national treatment, right of priority, independence of patents, period of grace for the payment of fees. Matters such as patentability of inventions, duration of the patent protection, and procedures for checking the patentability of inventions have also been dealt with. However, the rules concerning importation of articles, and of products manufactured by a process patented in the importing country; time limits and conditions of compulsory licensing and forfeiture are outside the scope of this chapter as they form the subject of discussion at their appropriate places in other chapters.

MINIMUM INTERNATIONAL STANDARDS PROVIDED UNDER THE PARIS CONVENTION

The Paris Convention of 1883 has sought to lay down certain minimum international standards to be incorporated into their respective national legislation by member states. The members

3 Article 2.
of the Paris Union have undertaken to adopt certain minimum standards of protection applicable to patentees generally, but particularly to foreign patentees. These include the following:

(a) National treatment or equality of treatment of nationals and foreigners.
(b) Right of priority.
(c) Independence of Patents.
(d) Importation of articles and of products manufactured by a process patented in the importing country.
(e) Time limits and conditions for compulsory licensing and forfeiture.
(f) Period of grace for the payment of fees.

Although the Paris Convention sets these general standards, it also fully recognises in other respects the basic freedom of member states to legislate according to their national interests. Consequently, it is correct to say that "the Paris Convention is a highly flexible legal artefact". 5

National Treatment or Equality of Treatment

National treatment for nationals of the countries of the Union is a fundamental principle of the Paris Convention and is one of the cornerstones of the system of international protection established therein. According to WIPO, national

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4 Actually, these are the major provisions of the Convention prescribing basic rules which establish the rights of the holders of the patents. Moreover, under Article 25 of the Paris Convention, a member country of the Convention ought to give effect to these provisions in its domestic legislation.

treatment means that, "as regards the protection of industrial property, each country party to the Paris Convention must grant the same protection to nationals of the other member countries as it 6 grants to its own nationals." It is embodied in Articles 2 and 3 of the Paris Convention.

Article 2 dealing with the national treatment for nationals of countries of the Union states:

(1) Nationals of any country of the Union shall, as regards the protection of industrial property, enjoy in all the other countries of the Union the advantages that their respective laws now grant, or may hereafter grant, to nationals; all without prejudice to the rights specially provided for by this Convention. Consequently, they shall have the same protection as the latter, and the same legal remedy against any infringement of their rights, provided that the conditions and formalities imposed upon nationals are complied with.

(2) However, no requirement as to domicile or establishment in the country where protection is claimed may be imposed upon nationals of countries of the Union for the enjoyment of any industrial property rights.

(3) The provisions of the laws of each of the countries of the Union relating to judicial and administrative procedure and to jurisdiction, and to the designation of an address for service or the appointment of an agent, which may be required by the laws on industrial property are expressly reserved.

According to Article 2(1), the national treatment rule applies to all advantages that the various national laws grant to nationals. This means that the national law, as it is applied to the nationals of a particular member country, must also be

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applied to the nationals of other member countries. In this respect, the national treatment rule excludes any possibility of discrimination to the detriment of nationals of other member countries. This means, furthermore, that any requirement of reciprocity of protection is excluded. Suppose that a given member country has a longer term of patent protection than another member country, the former country will not have the right to provide that nationals of the latter country will enjoy a term of protection of the same length as the term of protection is in the law of the latter country. This principle applies not only to codified law, but also to the practice of the courts (jurisprudence) and to the practice of the Patent Office or other administrative governmental institutions, as it is applied to the nationals of the country. The application of the national law to the national of another member country does not, however, prevent him from invoking more beneficial rights specially provided in the Paris Convention. These rights are expressly reserved. The national treatment rule must be applied without prejudice to such rights.\footnote{Ibid, pp.7-8.} For example, Article 2(3) states an exception to the national treatment rule. The national law relating to judicial and administrative procedure, to jurisdiction, and to requirements of representation is expressly "reserved". This means that certain requirements of a mere procedural nature which impose special conditions on foreigners
for purposes of judicial and administrative procedure, may also validly be invoked against foreigners who are nationals of member countries. An example is a requirement for foreigners to deposit a certain sum as security or bail for the costs of litigation. Another example is the requirement for foreigners to either designate an address for service or to appoint an agent in the country in which protection is requested. This latter is perhaps the most common special requirement imposed on foreigners, and is a permitted exception from the national treatment rule.8

Same treatment for certain categories of persons as for nationals of countries of the Union has been provided in Article 3 which reads:

Nationals of countries outside the union who are domiciled or who have real and effective industrial or commercial establishments in the territory of one of the countries of the Union shall be treated in the same manner as nationals of the countries of the Union.

Thus application of the national treatment rule under Article 3 also extends to nationals of non-member countries, provided they are domiciled or have an industrial or commercial

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9 The term "domiciled" is generally interpreted not to require a domicile in the strict legal sense of the term. A person is also "domiciled" in the sense of Article 3 if he lives more or less permanently, in a particular place, without having his legal residence there. In other words, a mere residence, as distinct from a legal domicile, is sufficient. Legal entities are domiciled at the place of their actual headquarters. Ibid, p. 8.
establishment in a member country. If there is no domicile, there may still be an industrial or commercial establishment which gives a person the right to national treatment. The notion of the industrial or commercial establishment in a member country of a national of a non-member country is further qualified by the text of the Convention itself. It requires that the establishment be real and effective which means that there must be actual industrial or commercial activity. A mere letter box or the renting of a small office with no real activity is not sufficient. 10

The principle of equal treatment covers all aspects of patent laws and consists, in the words of Bodenhausen, "in the application, without any discrimination, of the national law as applied to nationals of the country itself." 11 It may be mentioned that at the Revision Conference of The Hague in 1925, the United States delegation had pointed out that this system might lead to inequality of protection under the Convention, since, for example, the United States grants patents of a comparatively long duration, without annual maintenance fees and without an obligation to exploit a patent, whereas other member states have more restrictive rules. Some countries that

10 Ibid.
11 See Bodenhausen, n. 5, p. 29.
12 Ibid.
are members of the Union like Czechoslovakia, Egypt, Iran, Japan, Morocco, Poland and Spain, qualify the principle of equal national treatment. They grant unqualified patent protection to members of the Union, but to non-members of the Union, it is granted only on a reciprocal basis. Some countries that are not members of the Union also use this approach; with few exceptions, non-member countries have also incorporated this standard in their national patent laws. Exceptions include countries like India, Iraq, Kuwait, Pakistan and Republic of Korea which confer such treatment on the basis of reciprocity. 14

The application by developing countries of the principle of equal treatment and common standards to nationals and foreigners raises several issues. These countries are economically poor and scientifically far behind the advanced countries. The principle of formal equality embodied in it operates to the mutual advantage of parties to it if they are approximately at the same level of development and there is

The following countries which are parties to the Paris Convention make no distinction in their relevant laws between nationals and foreigners: Argentina, Australia, Brazil, Canada, Cuba, Germany, Hungary, Ireland, Israel, Italy, Jordan, Kenya, Lebanon, Malawi, Mexico, Morocco, Netherlands, Newzealand, Nigeria, Nordic countries, member countries of OAMPI, Philippines, Spain, Syrian Arab Republic, Tunisia, Turkey, Uganda, United Kingdom, United States, Uruguay, Yugoslavia, Zambia. The countries who are not parties to the Paris Convention also make no distinction between nationals and foreigners: Chile, Colombia, Ghana, Liberia, Peru, Sudan, United Republic of Tanzania and Venezuela. See United Nations, The Role of the Patent System in the transfer of technology to developing countries (New York, 1975), Doc. TD/B/AC 11/19/Rev. 1 & United Nations Publication Sales No. E.75 II. D 6, p. 9.

14 Ibid, p. 47.
genuine exchange of patent protection. In other words, equality of treatment only makes sense when the parties involved are in a general way equal; when they are not, equality of treatment simply gives the stronger party unlimited freedom to utilise his power at the expense of the weaker party. 15

The effects of the application of the ideals implied in the equality principle of the patent system on the developing countries can be illustrated by the figure of patent grants, which show that (a) nationals of the developing countries hold a bare 1 percent of the world total of patent grants; (b) foreigners own in the developing countries six times more patents than the nationals of these countries; and (c) over 90 percent of the patents so owned by foreigners are never used in production processes in these countries. 16 Thus the principle merely protects the rights of patent holders so far as the developing countries are concerned, and can be characterized as a reverse system of preferences in the markets of developing countries for foreign patent holders. It has also been stated that:

The patent system itself which was adopted internationally in 1883 by the Paris Convention for the Protection of Industrial Property and which has been in existence unchanged upto now

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16 Doc. TD/B/AC.11/19/Rev. 1 n. 13, p. 48.

is based on the assumption that there would be reciprocity and mutual benefits in exchange of patents and licences between member states. Unfortunately, the vast differences which exist in levels of industrialization between regions and within the regions themselves contribute to the working of this system in a manner which cannot guarantee such equity. It has been observed that 'under developed countries who are parties to the Paris Union find themselves in a position where they have to protect processes originating from highly industrialized countries, without themselves having in fact any processes to protect in those same highly industrialized countries. This is one characteristic example, among many, of abstract equality breeding factual inequality'. Although the patent system itself has much to commend it, a great deal of careful thought has to be given to ascertaining ways and means of safeguarding the needs and vital interests of developing countries.  

An UNCTAD study has also noted that the situation described above calls into serious question the role played by the application by developing countries of the principle of treatment of nationals and foreigners according to common standards. The grant of such equality in practice serves to strengthen the already strong position of foreign patent holders. Any future revision of the patent system should take into consideration the need for strengthening the weak bargaining position of developing countries through the introduction of a preferential system in their favour."

In this regard, it is relevant to note the developments negotiated in the framework of a sister Convention to the Paris

18 Seminar organised by WIPO on the role of patents and trademarks in industrial development with particular reference to the transfer of technology. WIPO Doc. BS/5, 18 September 1973, p. 10.

Convention - the Berne Convention for the Protection of Literary and Artistic Works, 1886. The Berne Convention was revised in 1971 so as to incorporate preferential provisions, on a non-reciprocal basis, in favour of developing countries; these provisions reflect the needs of developing countries and their bargaining weakness by enabling a system of compulsory licensing to be substituted, in such countries only, for the system of exclusive rights of translation and reproduction of works protected by copyright.

The national treatment principle does not however prevent the governments of the member states of the Paris Union from providing financial, fiscal or other support for their national inventors, to the exclusion of foreign inventors. Such policies, including preferential policies in relation to the administrative procedures of the patent system as is envisaged in Article 2(3) of the Paris Convention, are practised in some countries. 20

The rule of national treatment is of little help to developing countries in adopting a patent policy according to their needs. It may for example be desirable, as a condition of patentability, that the novelty for certain types of patents, such as those of improvement, should be local rather than

20 Ibid.
The purpose of such patents would be to internationalise the invention and to encourage the adaptation by local technicians of foreign technology to domestic conditions. It would be desirable to restrict such patents to nationals, for were they not so restricted, there would be still greater foreign patent participation than at present. A developing country should be free to require for specified sectors and for specified purposes world-wide novelty for foreign patent holders, and local novelty for domestic inventors, a policy option precluded at present by national treatment rule. It has also been observed that:

There are other aspects of patent legislation also where differentiation between foreigners and nationals may be useful. There may be a case for a longer duration for national patents than for foreign (since the latter would already have been exploited first elsewhere having yielded some return on the investment, and most efficient methods to work it would have been found). Similarly distinctions might be made when deciding on compulsory licensing or revocation of a patent between local and foreign patents, with higher standards demanded of the latter. A lower scale of fees than for the large, generally foreign, corporations would be equitable. Departures from the principle of national treatment might be authorized not only in favour of domestic inventors

Countries can make best use of a local novelty standard when they are the farthest behind technologically. The scope of novelty standard is less likely to make a difference in industrialised countries because owners of technology needed by these countries usually have already sought patent protection elsewhere. See Carter Mackley, "The Role of the Patent System in Technology Transfer, the Japanese Experience", Columbia Journal of Transnational Law (New York), vol. 26, no. 1, 1987, p. 140.

in developing countries, but also in their favour in the developed countries, for example in the form of lower fees or special administrative help.

While the rule of national treatment has been one of the original provisions of the Convention, its modification in favour of the developing countries and their nationals need cause no great difficulties in principle or practice. The principle of non-reciprocal preferential treatment for developing countries in the international economic system is widely accepted. Nor is it likely that the developed countries will suffer any particular damage by its modification. However, some of the advantages of a discriminatory policy could be achieved without modification of the rule of national treatment. That rule prohibits discrimination on the basis of nationality but not on the place of origin of the invention. It is thus open to a country to provide for two kinds of patents: one based on inventions made abroad and the other for local inventions. By means of such a distinction, many of the policy objectives of encouraging local inventive activity, greater protection for local inventions, stricter rules of "working" and novelty for foreign inventions as well as import restrictions could be applied. Foreigners would of course be eligible for patents "of local invention," but the effect would be that more of their research activity would have to take place in the developing country and thus more relevant inventions for these countries would result. It is,

23 Ibid; see also conclusions of the experts from developing countries on the revision of the patent system in the Report of the Committee on Transfer of Technology on its first session, Doc. TD/8/593, Annex. III.
therefore, suggested that developing countries be encouraged to design certain types of patents whose purpose would be to foster inventive capacity, the diffusion of inventions, and their effective use in local manufacture. At the same time, as mentioned earlier, the revised Convention should provide for granting preferential treatment for developing countries in some specific areas.

The Right of Priority

The right of priority like the principle of national treatment is one of the basic requirements of the Paris Convention. The Convention does not obligate a contracting state to grant a patent for an invention merely because another contracting state has granted one. But the Convention in Article 4 provides for the right of priority according to which 'any person who has filed an application for a patent in one of the countries of the Union has a right of priority in other countries of the Union, a right which, in the case of patents, is for a period of 12 months thereafter for the purpose of filing similar applications in other member countries'. In other words, the possibility for patentees to take out patents in other countries is protected in the Convention through Article 4, which describes the right of priority. Thus, the right of priority means that on the basis of a regular application for a patent right filed

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by a given applicant in one of the member countries, the same applicant (or its or his successor in title) may, within a specified period of time (12 months), apply for protection in all the other member countries. These later applications will then be regarded as if they had been filed on the same day as the first (or earlier) application. In other words, these later applications enjoy a priority status with respect to all applications relating to the same invention filed after the date of the first application. They also enjoy a priority status with respect to all acts accomplished after that date which would normally be apt to destroy the rights of the applicant or the patentability of his invention.25

Under the Convention, a filing in one country is considered a constructive filing though no patent is granted in all countries. By "filing" it is meant any filing that is adequate to establish the date on which the application is filed, whatever may be the outcome of such application. The publication or even the exploitation of the same invention carried out independently by any third party during this period of 12 months will not impair the right of the applicant to get the patent (provided his application fulfills all the other requirements). Article 4F allows the period of priority to be extended sequentially with respect to elements of the invention not included in the previous

26 See Article 4 A (3) of the Paris Convention.
27 See Article 4 B.
applications. Article 4F reads:

No country of the Union may refuse a priority or a patent application on the ground that the applicant claims multiple priorities, even if they originate in different countries, or on the ground that an application claiming one or more priorities contains one or more elements that were not included in the application or applications whose priority is claimed, provided that, in both cases, there is unity of invention within the meaning of the law of the country. With respect to the elements not included in the application or applications whose priority is claimed, the filing of the subsequent application shall give rise to a right of priority under ordinary conditions.

The twelve-month priority period achieves the form of territorial unification sought by the Convention. Moreover, due to the principle of independence of patents, the duration of life of a patent granted on the basis of priority privileges is equal to what it would have been if priority had not been claimed. It is also to be noted that when the Convention was originally framed in 1883, the period of priority allowed was but six months and even then some delegates at the drafting conference felt that the period was too long (one extra month was allowed in the case of overseas applicants).

The right of priority offers great practical advantages to the applicant desiring protection in several countries. The applicant is not required to present all applications at home and in foreign countries at the same time, since he has 12 months


at his disposal to decide in which countries to request protection. The applicant can use that period to organise with due care the steps to be taken to secure protection in the various countries of interest in this case. The priority principle gives the advantage to patent applicants in that it protects them from the loss of novelty that would occur, in the case of non-simultaneous application, in all those countries which insist on the absolute rather than relative criterion of novelty. To remove or reduce the priority period does not necessarily mean, of course, that filing of patents in more than one country would be impossible but it would render that procedure more difficult. In the absence of a right of priority applications for grants had to be filed simultaneously in all countries to avoid the result of the invention losing its novelty through publicity.

The terms under which the priority privilege is preserved are extremely broad. It is specified in Article 4A that priority privilege is maintained when there is "regular national filing". Such filing applies only to form and not to the substance of the patent application. As has already been mentioned the subsequent outcome of such application, thus, does not affect the right of priority. In other words, although the priority right itself is concerned with territorial unification, the actual implementation distinguishes between the right of

priority and the final fate of the patent application. Article 4 B also establishes that the novelty of the invention will not be affected by reason of any act accomplished during the priority period. Article 4 B provides:

Consequently, any subsequent filing in any of the other countries of the Union before the expiration of the periods referred to above shall not be invalidated by reason of any acts accomplished in the interval, in particular, another filing, the publication of exploitation of the invention, the putting on sale of copies of the design, or the use of the mark, and such acts cannot give rise to any third-party right or any right of personal possession. Rights acquired by third parties before the date of the first application that serves as the basis for the right of priority are reserved in accordance with the domestic legislation of each country of the Union.

Thus, the publication or exploitation of an invention by anyone does not, during the priority period, invalidate or otherwise affect the subsequent filing of patent applications in other countries for which the priority privilege is claimed. According to Stephen P. Ladas, "the right of priority is essentially a legal defence, accorded by Article 4 of the Convention to the persons admitted to its benefits, against the grounds of invalidation which under the provisions of national legislation concerning the novelty of invention, might be opposed to them or against persons who file in the meantime a patent application for the same invention." 34

The terms of the provision of right of priority are very broad. It is possible for a patentee to claim "multiple priorities" with regard to what may be broadly considered as a single invention. As a result a person who had filed several patent applications relating to the different parts of one subject-matter, at different dates may join them together and may file a single application in another country of the Union. If he wishes to claim a right of priority based on these several applications he must file the latter within twelve months from the date of the initial application. It is open to the country wherein the single application is filed, to insist that there should be "unity of invention" in accordance with its own law. Further, if the single application reveals some new element not covered by the earlier applications, the said new element gives a right to claim priority in filing further applications. 35

However, with regard to the rights of third parties, the provision only permits national legislations to preserve those rights required before the date of the first application. Consequently, if in the country where the priority is claimed the same invention was independently made and an application for a patent filed during the priority period, the rights of

the national inventor should be refused in favour of the exclusivity of the foreign applicant.

Many countries grant a right of priority to applications in respect of inventions for which applications were first filed, within a specified period of time, in another country.

Canada along with the United States has been one of the few countries in the world operating on the basis of the first to invent system. The amending Act of 19 November 1987, however, replaced the Canadian first-to-invent system with the first-to-file system under which the person who first files his application is entitled to its registration over any subsequent application regarding the same invention. As between any conflicting applications for the same invention, the one having an earlier effective date, will be given priority. Canada which ratified

38 The old Canadian conflict procedure enabled the first inventor who proved to the Commissioner of Patents that he was the first to make the invention to prevail over a subsequent first-to-file application. Based on such evidence the Commissioner either rejected or allowed the claims in conflict unless, within a time period specified by the Commissioner, one of the applicants brought an action in the Federal Court of Canada for the determination of the applicants' respective rights. See Milan Chromecok, "The Amended Canadian Patent Act: General Amendments and Pharmaceutical Patents Compulsory Licensing Provisions", Fordham International Law Journal (New York, N.Y.), vol. II, 1988, p. 508.
the Paris Convention in 1951 and is bound by the London revision of 1934 also modified in 1987 the so-called Paris Convention priority claims. Section 29 of the Canadian Patents Act, 1935 as amended in 1959 and 1965 implements the obligations under Article 4 of the Paris Convention. Under the old system, the applicant was entitled to claim a Convention priority date if he filed his Canadian application within 12 months of the date of filing of the first foreign application but before the issue of a foreign patent for the same invention. The effective filing date in Canada was deemed to be the date of filing of the first foreign application provided that the applicant requested the benefit of Section 29 while his Canadian application was pending.

The amended provisions of Section 29(1) clarify that the meaning of the "same invention" is not to be interpreted on a claim-by-claim basis, but it is sufficient for a valid priority claim that the same invention be described in the first foreign application. Furthermore, the applicant is now required to make his Convention priority claim within six months of the date of filing in Canada. Section 29(3) which implements the provisions of Article 4C(4) of the Lisbon text of the Paris Convention enables the applicant who has refiled his patent application for the same invention in the foreign country to claim a Convention priority date being the date of refiling of his second application. To be eligible to claim such priority date, the applicant's first application must have been withdrawn.

abandoned, or refused on the date of refiling of the second application. Additionally, the first application must not have been laid open to public inspection or served as a basis of a priority claim in any country, and no rights may be left outstanding.

New Russian Patent Law on Inventions of 31 May 1991 has preserved the first to file system of protection for invention. Priority is determined at the moment an application is filed with the State Patent Office, Gospatent. For establishing priority of invention, People's Republic of China has adopted a first to file system under which the first applicant alone meets the requirements of novelty. Thus under Article 45 of the new Patent Law of 12 March 1984, it is provided that where the patentee enjoys a right of priority the duration of the patent right shall be counted from the date on which the application was filed in China.

The Indian Patents Act (IPA) makes provision for priority rights in cases required by international conventions. Under

40 Ibid, p. 513.
44 See Sections 135-137 of the Patents Act (Act No. 39 of 1970) of India.
Section 135(1) of the IPA, where a person has made an application for a patent in respect of an invention in a convention country ("the basic application") and that person makes an application under this Act for a patent within 12 months after the date on which the basic application was made, the priority date of a claim of the complete specification, being a claim based on matter disclosed in the basic application, is the date of making of the basic application. Under the Explanation attached to the same Section where applications have been made for similar protection in respect of an invention in two or more convention countries, the period of 12 months shall be reckoned from the date on which the earlier or earliest of the said applications was made.

The grant of patents to those who filed first under standard first-to-file priority rule in most of the countries and not to those who have invented first, as in the United States, pushes innovators into the patent office sooner than they otherwise might elect. Thus information is disseminated earlier than it would be under the alternative priority rule. Moreover, the rush to patent means that many applications are incomplete and vague, which increases the possibility of conflicting claims once patents are granted. Within a certain period after

Notification as to convention countries has to be made under Section 133 which provides:

With a view to the fulfilment of a treaty, convention or arrangement with any country outside India which affords to applicants for patents in India or to citizens of India similar privileges as are granted to its own citizens in respect of the grant of patents and the protection of patent rights, the Central Government may, by notification in the official Gazette, declare such country to be a convention country for the purposes of this Act.
the filing, the applicant can modify and fine-tune the application. As a result, firms often resort to licensing to settle the differences between patent claims.

The principle of right of priority has created problems for developing countries and so has come under attack by these countries. As mentioned earlier, the right of priority has been broadly interpreted by the Paris Convention so as to include even multiple priorities. As a consequence, a patentee by employing this method of multiple priorities can retrospectively claim protection for a particular invention, and third parties who have started exploitation in good faith are thereby put to hardship. An UNCTAD report has in this connection recommended that the scope of multiple priorities should be curtailed vis-à-vis third parties.

It has been noted by the UNCTAD report that the risk emerging from the situation described above may well constitute a strong disincentive to initiate research and development activities in developing countries. Investments of time and money may become useless because of an application made in some other country in the world and still unknown to nationals. On the other hand, the priority right is also likely to discourage the putting into use of new inventions. For nearly

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a year national enterprises will not have any certainty whether they would be asked to stop such use due to the granting of a patent on the basis of a priority. It has been underlined that especially in countries with a high level of foreign participation in the patent system, "the restraint which may be imposed on a third party who has started the exploitation of his invention unilaterally, on the basis of a filing made by the person entitled to the priority period which has been kept secret, is abusive and at variance with the national interest." 49

It has also been observed by an UNCTAD study that the consequences could be more drastic if foreign applicants take advantage of the one year period to deliberately delay the filing of their application until the last month of the Convention year. Such a practice is connected also with the rights conferred by Article 4 bis (5) (independence of patents) and the possibility thereunder to lengthen the period of validity of the patent by delaying the filing of the application based on the Convention priority period till the last possible moment.

48 Ibid.
49 See Studies on a Possible Amendment of Articles 4B and 4 bis (5) of the Paris Convention (revised version) presented by the Department of Consumer and Corporate Affairs of Canada, WIPO Doc. PR/GE/III/7, annex I, p. 12.
50 Statistics from the Canadian Patent Office indicate that two-thirds of all Convention filings are received in the last month of the Convention year. Ibid.
It becomes clear from the preceding considerations that it is desirable to make certain changes to conditions governing priority so as to safeguard the interests of developing countries. The changes can be made towards:

1. reducing the priority period so as to reduce suspense and uncertainty of potential inventors and other would-be users of technology in the field covered by the patent application;

2. not applying priority right against third parties who have in good faith, started the exploitation of an invention on which priority is claimed, before its publication or disclosure;

3. exploring the possibility of granting preferential treatment to developing countries with regard to the rights of nationals that may in good faith apply for a patent during the priority period claimed by a foreign applicant; and also with respect to duration of the priority period for inventions originating in developing countries;

4. imposing an obligation on the applicant for a patent claiming Convention priority to indicate the result of the application so as to avoid the dichotomy between the fact of application and its fate; and

5. providing for exchange of information among national patent offices as regards the fate of such application.

Independence of Patents

The principle of independence of patents, as in Article 4 bis of the Paris Convention, means that "patents applied for in the various countries of the Union shall be independent of patents obtained for the same invention in other countries, whether members of the Union or not." The term "other countries" expressly includes non-member countries. Thus, the rule

52 Article 4 bis (1).
concerning independence of patents means that patents for invention granted in member countries to nationals or residents of member countries must be treated as independent of patents for invention obtained for the same invention in other countries, including non-member countries. 53

The independence of patents is to be understood in an unrestricted sense, in particular in the sense that patents applied for during the period of priority are independent, both as regards the grounds for nullity and forfeiture, and as regards their normal duration. 54 This means that the termination or forfeiture of patents in one country does not affect patents in another. In other words, even if a patent application is declared invalid or a patent is forfeited in one of the countries, the patent applications or the patents in respect of the same invention in other member countries would continue to be valid. The underlying idea is to ensure the freedom of action of an inventor. For instance, patent laws being different from each other in various countries, there is a possibility for a patent to be declared invalid or rejected in one country of the Union because of lack of novelty, inventive activity and/or industrial

54 Article 4 bis (2).
55 Nanyena-Takirambudde, n. 32, p. 65.
56 Jayagovind, n. 35, p. 51.
applicability and remain in force in another country where those conditions or some of them are required by the patent law.

Article 4 bis(2) mentions one case, to which this principle applies, as an example. It is the case of patents for invention in various countries linked together by the same priority date invoked on the basis of the same first application. The fact that this example is mentioned in the Convention has a historical explanation. To quote a senior official of the Development Cooperation and the External Relations Bureau for Asia and the Pacific WIPO, "for such "patent families"—as patents for invention invoking the priority of the same first application are called—it would seem to be logical to link the fate of the later applications to that of the first application. It is in order to expressly deny the possibility of linking together the fate of the members of a patent family that the whole principle of independence of patents was incorporated into the Paris Convention". A special feature of the principle of independence of patents for invention is contained in Article 4 bis (5), according to which, "patents obtained with the benefit of priority shall in the various countries of the Union, have a duration equal to that which they would have, had they been applied for or granted without the benefit of priority."

This provision again deals with patent families and requires that a patent granted on the basis of a later application within a patent family must be given the same duration which it would have in application of the national law if no priority had been claimed. In other words, it is not permitted to deduct the priority period from the term of a patent invoking the priority of a first application. A provision in a national law starting the term of the patent for invention from the (foreign) priority date, and not from the filing date of the application in the country would be in a violation of this rule.

The underlying reason and main argument in favour of the principle of independence of patents for invention is that the national laws and administrative practices are usually quite different from country to country. A decision not to grant or to invalidate a patent for invention in a particular country on the basis of its law will frequently not have any bearing on the different legal situation in the other countries. It would not be justified to make the owner lose the patent for invention in other countries on the ground that it or he lost a patent in a given country as a consequence of not having paid a maintenance fee in that country or as a consequence of the patent's invalidation in that country on a ground which does not exist in the laws of the other countries. Moreover, a system of dependence of patents would not be in conformity with the national treatment rule.

58 See Doc. WO/INF/80, n. 6, p. 11.
However, from the point of view of the developing countries, the principle of independence of patents has unfavourable impact on the patent granting country. In developing countries which suffer from a severe shortage of the technical staff required to engage in a thorough examination of a patent application, the value of information on the granting and validity of patents applied for in a developed country would be quite high. In this direction, it may be pointed out that some countries rely directly on the examinations made in developed countries. Under the "modified examination system" of Australia, the Australian Patent Office limits the examination of applications already examined in the United Kingdom or the United States to formal matters and conformity of patent specification. In Bolivia, Article 5 of Supreme Decree No. 09673 of 1971 provides that when applications are filed by nationals or when they originate in countries of "less industrial and scientific development", they are submitted to an examination by an "adhoc" commission appointed by the Ministry of Industry.

A second type of problem created for developing countries can be shown by narrating the example of ampicillin patents. In early 1970 the United States Department asked for and

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60 See Doc. TD/B/C.6/AC.3/2, n. 17, p. 22.
obtained cancellation of what it regarded as the "fraudulently procured" ampicillin patent and the invalidation of ampicillin trihydrate patents. Patents for ampicillin were taken out in more than 60 countries and even in 1968 the world-wide sales by one company alone and its licences were about $170 million. In other words, when the United States cancelled the patent for ampicillin, it continued to enjoy protection in other countries. In the area of drugs and pharmaceuticals, these kind of things happen quite often and the developing countries become dumping grounds for medicaments often rejected abroad. In this regard, it becomes pertinent to quote the suggestions put forward by the UNCTAD secretariat:

The possible costs to developing countries which continued to grant privilege to this "fraudulently procured" patent could therefore be quite high and could have been avoided had there been a mechanism formally established for the exchange of information on forfeiture proceedings. The kind of situation just described would not occur if a person or legal entity applying for a patent on the basis of the priority privilege were obliged to inform the competent authority of the result of the application in other countries and if the countries where the application was made were obliged to inform the other ones of the results of its examination.


62 Jayagovind, n. 35, p. 60.

One can find such kind of obligation to inform under Article 20 of the Brazilian Code on Industrial Property which provides that when an applicant claims priority he shall, if required to do so by the patent office, furnish the objections, the documents relating to the search for prior art and the results of examinations connected with the grant procedure for the corresponding applications in other countries. Thus the role of compulsory mutual exchanges of information among countries, so that a patent invalidated in one country for some inherent reasons (in contradistinction to deliberate actions of patentees such as non-payment of fees etc) will not enjoy protection in other places becomes relevant in this direction and needs to be incorporated in the Paris Convention. It may also be pointed out that some of the most important countries in terms of the quantity of patenting require that their nationals first file applications at home, which requirement has the effect that much of the prior examination of patents is carried out in those countries where the capacity to carry out such examination is available. Therefore, obligations on those offices, as well as on the patent applicants themselves, to provide information on the results of applications would be very useful. At the same time, the validity of a patent may not be judged only by the results of initial examinations; and the litigation in the courts relating to validity of a patent may result in the patent being declared null. Therefore, the

64 Law 5722, 1971.
"compulsory exchange of information" among member countries in respect of results of litigation on the validity of a patent also needs to be included in the Convention.

To some extent the principle of independence of patents is an inevitable consequence of the fact that countries remain free to decide for themselves on matters such as patentability, duration of a patent, renewal of procedures and so forth. In this respect the principle of independence is consistent with the notion of each country setting its own standards as far as patents are concerned. However, now under the Agreement on TRIPS, freedom of the countries has been curtailed to decide for themselves on standards of patent protection. This becomes clear from express provisions made therein laying down uniform standards for all countries with respect to the question of patentability from both the angles of requirements of patentability and subject-matter of patentability (Article 27); term of protection (Article 33) and conditions on the patent applicants (Article 29). Thus the rule of independence of patents has been undermined with the notion of uniform standards for all countries in the TRIPS Agreement. At this juncture it becomes pertinent to discuss matters of patentability of inventions, duration of the patent protection and procedures for checking the patentability of inventions.

Patentability of Inventions

The question of patentability can be dealt with from two angles involving, firstly, requirements of patentability and secondly, subject-matter of patentability. Here we will deal only with the former as the latter will form the subject of discussion in chapter VI.

The requirements which an invention normally must meet in order to be patentable are a certain degree of novelty, industrial applicability, often also inventive step and sometimes "progress". For instance, any invention for which patent right may be granted in People's Republic of China must possess novelty, 66 inventiveness and practical applicability. In Tanzania, an invention is patentable if it is new, involves an inventive step and is industrially applicable. Article 1 of the new Russian Law on Inventions of 31 May 1991 describing the standards of patentability of inventions provides that an invention shall be given legal protection if it is novel, has inventive level 68 and is industrially applicable. Under European Patent Convention (EPC) of 1973, "European patents shall be granted for any


68 Criterion of patentability has been described in Article 1(1) as the standard of "inventive level" which is present in the invention if in the eyes of an expert it does not follow from the state of the art in an obvious manner. See Litman, n. 42, p. 194.
inventions which are susceptible of industrial application, which are new and which involve an inventive step.\textsuperscript{69} Most laws, in particular most of the recently enacted laws, deal expressly only with the requirement of novelty. Industrial applicability is normally required but not defined. However, the Columbian Law of 1971, prescribes that the subject of the invention must be capable of being manufactured or used in any kind of industry, including agriculture. Progress, if required, is rarely mentioned. For instance, the law of Czechoslovakia of 1972 mentioned and defined progress: an invention must evidence technical progress as shown by results quantitatively higher or qualitatively different from those obtained by technical means which are part of the world state of the art. Similarly, Hungarian law also provided that an invention represents progress in comparison with the given state of the art if it satisfies needs which remained unsatisfied before or if it satisfies needs more advantageously than before. Inventive step, if expressly mentioned, is in most cases defined simply by stating that the invention must not be obvious with respect to the state of the art. Sometimes it is made clear that non-obviousness must exist for an expert or as

\textsuperscript{69} Article 52 (1).

\textsuperscript{70} For instance, the Russian Law on Inventions under Article 1(1) describes non obviousness as the standard of "inventive level" which is present in the invention if in the eyes of an expert it does not follow from the state of the art in an obvious manner. See Litman, n. 42, p. 191.
stated in the Israeli law for "an average man of the art", or "a person skilled in the art on the date of filing of the application." 72

It may be pointed out that the existence of an "inventive step" as an essential condition for patentability, already required in most developed countries as well as in the WIPO Model Law for Developing Countries on Inventions of 1979 has gained acceptance in patent laws. For instance, Decision 85 of the Andean Group, relevant laws of Mexico, Sri Lanka and Thailand, People's Republic of China, Tanzania and Russia. Decision 85 refers to "creation" which is deemed to be an "original solution" for the production of goods (Article 1). In Argentina and Brazil, though it is not expressly stated, the existence of an inventive step has been required in some judicial decisions and in administrative practice. In Columbia the "inventive activity" requirement was introduced in 1971 by Decree 1410. In People's Republic of China inventiness means that "as compared with the technology existing before the date of filing, the invention has prominent substantive features and represents a notable progress." 75

73 WIPO Publication No. 840 (E) and No. 841 (E).
As regards industrial applicability of an invention, in Russian law it has been described in the most general terms as potential for application in any branch of the national economy, including agriculture and health care. In Tanzania an invention is industrially applicable if it can be made or used in the technological sense in any kind of industry. In China "practical applicability" means that "the invention can be made or used and can produce effective results." In other words, the invention creation must be capable of being converted to a useful productive force.

These requirements for more stringent criteria for patentability may help to ensure that the protected invention represents a genuine contribution to the stock of useful knowledge. The test with respect to these requirements may not always be the same at the various possible stages at which the requirement may be applied (search, examination, opposition, invalidity invoked in infringement proceedings, action for invalidation or revocation). For example, as regards novelty and inventive step the Indian Law of 1970 makes distinctions

76 Article 1(1) of Russian Law on Inventions of 31 May 1991.
77 Doc. UNCTAD/ITP/TEC/17, n. 67, p. 2.
between the various stages. Where such distinctions are made, the most severe test is normally applied in the review of the validity of a patent granted, either in an infringement action or in a special action for nullity or revocation.

Regarding the most important requirement of patentability, namely, novelty of the invention, the general test is that an invention is new if it does not form part of the state of the art. Some divergencies exist among laws with respect to the definition of the state of the art; limitations of the state of the art may exist regarding the territory to be considered (whether national or world-wide novelty is required), regarding the period of time to be considered (for instance, whether only documents having been published after a certain date are to be included in the state of the art) and regarding the manner in which knowledge of a previous invention has been made available to the public (only through publication, or also by any other form of communication or by public use). Even where a law does not provide for any such limitations – thus theoretically including, for instance, communications made a long time ago in a far away country – there are practical limitations since there is a presumption of validity for a patent granted until prior art that bars the novelty of an invention has been proved. If as in most countries, the laws contain

80 For instance, see Article 54(1) of EPC, 1973, Article 1(1) of the Russian Law on Inventions of 31 May 1991. Under Patent Act of 1987 of Tanzania, "an invention is new if it bears the novelty attribute in that it is not anticipated by prior art." See UNCTAD, ITP/TEC/17, n. 67, p. 2.
limitations regarding the time at which and the manner in which previous inventions were communicated, the legislators certainly took the difficulty of proof into account. The same considerations also play a role with respect to limitations regarding the territory. A typical example of such a limitation is contained in the law of the United Kingdom, which takes into account for the state of the art only prior knowledge, whether documentary or otherwise, in the United Kingdom and prior use in the United Kingdom. Other countries like Germany, France, Russia and the United States have for a long time applied the standard of world-wide novelty, thus rewarding only the inventor who contributes to the progress of technology on a world-wide scale.

An official report on the British patent system published in 1970 recommended, taking into account in particular the Strasbourg Convention on the Unification of Certain Points of Substantive Law on Patents for Invention, 1963, the adoption of the standard of world-wide novelty. The same standard is also accepted in the EPC which was signed at Munich in 1973. The Criterion of and absolute novelty as adopted in Article 54(2) EPC and Article 4 of the Strasburg Convention provides that:

The state of the art shall be held to comprise everything made available to the public by means of written or oral description, by use, or in any other way, before the date of filing of the European patent application.


82 See Article 1 and 4 of the Strasbourg Convention for requirements of patentability.
This definition of the state of the art is significant in not containing any of the four limitations which, either separately or in combinations, were formerly found in many national patent laws. There is no restriction as to the material which can anticipate an application for a European patent; the description may be written or oral. There is no restriction as to time. Although the "minimum documentation" under Rule 34 PCT does not go back further than 1920 this does not prevent an opponent or third party providing evidence of an anticipation before this date. It merely means that the official international search does not normally cover documents before that date. Thirdly, there is no geographic limitation. No patent office is equipped to search the state of the art on a world wide basis. This means that there may be a difference in scope between the material actually searched by the patent office and the material which may be opposed to the patent by third parties either in opposition or revocation proceedings. Finally, there is no restriction as to the public. In Dutch law it was, for instance, the man skilled in the art who was decisive rather than a member of the public. This is not so in the European Convention; the notion of the public should be taken in its widest sense. However, as long as the information is supplied under a bar of confidentiality, it does not form part of the state of the art.

83 Bruce Cawthra, "Substantive Conditions of Patentability", in WIPO-LAW Asia Seminar on Industrial Property, n. 57, pp. 35-36.
Article 55 EPC contains two exceptions of very limited scope to the rule of absolute novelty. A disclosure of the invention is not taken as part of the state of the art provided that it occurred not earlier than six months preceding the filing of the European application and it was due to an evident abuse in relation to the applicant. An example would be a disclosure in breach of a bar of confidentiality. The second case is where the applicant has displayed his invention at an official international exhibition falling within the terms of the Convention on International Exhibitions, Paris 1928. Only seven such exhibitions, taking place between April 1982 and May 1986 have been recognised. Efforts to introduce a grace period on an international basis are, however, currently being made.

In deciding whether a claim lacks novelty because of a prior publication, it is necessary to determine what matter is directly and unambiguously derivable from the prior publication and whether that matter is encompassed by the claim. This determination has been termed in the Guidelines for Examination in the European Patent Office the "test for novelty". This test propounded in the EPO Guidelines in respect of novelty reflects

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84 Ibid, p. 36.

the strict approach in Europe to novelty. The test is not set out in the EPC or in the United Kingdom Patents Act, 1977.

All recent patent laws have adopted the test of world-wide novelty, at least as regards prior art made available to the public through publications. The Russian definition of novelty holds an invention as new if "it is not known from the state of the art". By the concept of "state of the art" is meant the sum of all types of data, publicly available in Russia or in foreign countries prior to the date of the priority of the invention. Previously novelty used to be identified in terms of whether the "essence" of the technical solution is sufficiently known from existing data to make possible its practical realisation. But now an invention that represents an advance over the "state of the art" meets the standard of novelty and is the same absolute novelty which is familiar from the EPC.

In 1959 Japan switched from a totally local standard of novelty to what has been termed as a hybrid standard. The lack of novelty is a bar to patentability if publication occurs anywhere, but public use is a bar only when it occurs locally. Thus the novelty requirement in 1959 Patent Law of Japan provides

86 Ibid, p. 743.
89 Mackley, n. 21, p. 140.
that an invention is not new if it has been publicly known or
publicly used within the State of Japan before application for
a patent or if it has been described in a publication circulated
in the State of Japan in such a manner that it can be easily
worked. It bars from patentability an invention which was
described in a publication circulated within the State of Japan
or in any foreign country prior to the patent application.

Novelty in China means that, "before the date of filing,
no identical invention or utility model has been publicly
disclosed in publications in the country, or abroad or has
been publicly used or made known to the public by any other
means in the country, nor has any other person filed previously
with the Patent Office an application which described the
identical invention or utility model and was published after
the said date of filing." The criterion of novelty is thus one
of "limited world novelty" which requires that the product not
be publicly known anywhere in the world and not be in use in
China. Further, the novelty requirement is subject to three
exceptions. "An invention - creation for which a patent is
applied for does not lose its novelty where, within six months
before the date of filing one of the following events occurred:
(1) where it was first exhibited at an international exhibition;

90 Article 29. For text, see ibid.
91 Article 29 (3). For text, see ibid.
92 Article 22 of the Patent Law of the People's Republic of
93 Chwang and Thurston, n. 79, p. 149.
(2) where it was first made public at a prescribed academic or technological meeting; (3) where it was disclosed by any person without the consent of the applicant.

The Amending Act of 19 November 1987 has introduced a requirement of absolute novelty in the Canadian Patents Act, making it impossible to obtain a patent for an invention previously disclosed by a person other than the applicant in such a manner that it has become available to the public in Canada or elsewhere. The existence of prior art anywhere in the world would therefore preclude the inventor from obtaining a Canadian patent. Under the old system which has now been abolished, a patent in Canada could not validly be issued if more than two years before the date of application the invention was (a) described in any patent or in any printed publication published anywhere in the world, or (b) the invention was in public use or on sale in Canada, whether by the applicant or by any one else. Thus the statute expressed the notion of anticipation, one of the key principles of Canadian patent law, stating in effect that where the public becomes possessed of an invention by any means whatsoever, no subsequent valid patent may be granted in respect of that invention. However, the Canadian Patent Act provided for a relatively generous two-year grace period within which the

96 Chromeczek, n. 38, p. 510.
applicant could still obtain his patent, anticipation notwithstanding.

The prior art is not defined in Section 28 but is defined elsewhere in the Amending Act of 1987 as "consisting of patents and printed publications." Such a definition does not appear sufficiently broad to encompass the entire universe of prior art, which is not necessarily expressed in the printed form. Moreover, the above definition appears to exclude from the relevant prior art "secret" patents which are not made available to the public.

Duration of the Patent Protection

The rights arising from the various kinds of patents have a duration which is specifically limited by the national law. In practice the duration of rights in an invention of minor importance may also be limited by the amount of any periodic (e.g. annual) fees to be paid for their maintenance, particularly when such fees increase each year; for inventions of significant value, however, the maximum duration provided by the law constitutes the effective limitation. However rights arising

97 The concept of anticipation recognises that there is an invention, but it previously has been disclosed to public. Ibid.

98 See Section 11 of the Amending Act of 19 November 1987. See also amended Sections 36(1) and 51(1) of the Canadian Patents Act 1935, as amended in 1952, 1969 dealing respectively with filing of prior art in protest against patent applications laid down to public inspection and reexamination of issued patents.

99 Chromecek, n. 38, p. 511.
from inventors' certificates have no limitation.

Since one of the aims of granting a patent is to provide an inventor with some returns on his investment, a relevant matter with regard to any patent is the duration for which the patentee can retain monopoly privileges. It has been said that "there has been no thorough economic analysis to determine an optimum duration. The determination of an optimum period would require not only detailed calculations of costs and returns over the period, but also a clear appreciation of the criteria by which the optimum was to be decided. The duration which has been at the back of many discussions on this question appears to follow from some concept of a period sufficient to guarantee the patentee a "fair return" on his efforts. The notion of a fair return is a highly subjective one and its determination may vary from country to country, from sector to sector and from time to time."

It has been observed that the duration of patent rights has been determined by historical precedent and political compromise. The 14-year term of the English patents after 1624 was based on the idea that two sets of apprentices should, in seven years each, be trained in the new techniques, though a prolongation by another seven years was to be allowed in exceptional cases.

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100 See Doc. TD/B/AC.11/19/Rev. 1, n. 13, p. 9.
101 Ibid, p. 53.
The duration of patent rights commonly varies between 15 and 20 years from the filing date. In some countries, however, the duration is calculated from the date of grant or from the date of publication. In OECD countries patents generally last for 15-20 years, in other countries it is 5-10 years. In the developed countries patents are mainly granted for between 16 and 20 years and only Italy and Japan have a shorter patent duration of 15 years. There is a slight difference in the duration of patents in these two countries. In Italy, the 15 years' term is counted from the date of filing the application and in Japan from the date of publication of the application. In the latter country, the patent cannot exceed 20 years from the initial date of application i.e. date of filing. In Canada, the period of protection was extended from 17 years as of the date of grant of the patent to 20 years as of the date of filing of the patent application by the amendment Act of 19 November 1987. The 17 year term is maintained in its original form where the

103 Copyrights have a more varied life. In the US they last for 50 years plus the life of an author, 75 years for a corporation or 75 years from publication or 100 years from creation (whichever is shorter) for 'works made for hire'. But in Europe they only apply for 30 years. In other countries it is often 20 years, which is the figure targeted by the WIPO. See Raphael Kaplinsky, "Industrial and Intellectual Property Rights in the Uruguay Round and Beyond", Journal of Development Studies (Ilford), vol. 25, no. 3, April 1989, p. 376.

application has been filed prior to that date. In United States, a term of 17 years (in the case of a design patent, 14 years) prevails. The 17 year term of pharmaceutical and medical device patents may be extended for as long as five additional years.

The data for the developing countries show a wide range of patent duration and indicate that in certain cases the duration of the patent is not always the same, irrespective of the nature of the invention or the sector in which it occurs. In Chile, for example, patents may have a duration of 5, 10, 15 and exceptionally 20 years according to circumstances; similarly in Argentina patents are granted for 5, 10 or 15 years, taking into account the merits of the invention and the wishes of the applicant. The duration in India is, in general, of 14 years from the date of the complete specification, and seven years from the date of the filing or five years from the date of sealing, whichever period is shorter, as regards food chemicals and drug patents. An example of a law under which the appropriate duration of a patent was subject to determination by the Government in each case was the Chinese law of 1950, published by BIRPI in 1952.

105 Section 46 of the amended Canadian Act. See also, Chromeczek, n. 38, p. 518.


The new Patent Law of the People's Republic of China of 12 March 1984, now, provides a 15 years duration of patent right for inventions counted from the date of filing (Article 45). Certain countries recognize the possibility that patent duration may vary according to diverse circumstances. In some countries, the length of the patent grant depends upon the sector to which the patent refers. In other cases, the duration depends upon clear evidence that the patent is being worked. For example, the 1971 Patent Law of Colombia has an interesting provision that patents are granted for eight years but that this may be extended by a further four years, if the patent authority is satisfied that adequate evidence of working has been provided (Article 29 of the Industrial Property Regulations of the Commission of the Cartagena Agreement).

Decision 85 of the Commission of the Cartagena Agreement of 1974 provides for initial grants of patents for five years, extendable for an additional five years provided that the patent is adequately worked. Before the introduction of this Decision, patents could last up to 12 years in Ecuador and Colombia and for ten years in Peru. The change in the duration of the patent protection has been more drastic in the case of Mexico, where it was reduced from 15 years to 10 years from the date of granting. However, January 1990 amendment to Mexico's


Invention and Trademark Law as amended in 1987 proposes an extension of the patent term to 20 years from the date of filing, a change that would bring Mexican Law into conformity with the desires of the developed countries. In Costa Rica, Decree No. 6219 of 1978 provides for the grant of pharmaceutical patents for one year provided that the products are made in Costa Rica. In the reform of its patent law of 1979, Sri Lanka provides protection for 15 years. According to the previous patents Ordinance, patents lasted for 14 years from the date of application, but extensions could be granted for 7 or 14 years, or a new patent could be granted if the courts found that the patentee had been inadequately remunerated by his patent (Section 28). The recently enacted patent system in United Republic of Tanzania as contained in Patent Act No. 1 of 1987 states that the patent shall expire at the end of the tenth year after the date of the filing of the application. The term of the patent may be extended for a period of five years.

The WIPO Model Law for Developing countries on Inventions, 1979 suggests a 15-year period after the filing date of the application that may be extended for an extra period of five years (Section 138).


112 See Doc. UNCTAD/IIP/TEC/17, n. 67, p. 2.
From the differences in practices as to patent duration as revealed above, it can be inferred that a developing country could determine the period of duration of a patent grant in accordance with its own specific requirements and policy considerations. It might well wish to take into account whether its national interest was well served by deciding in advance the duration of patent grants. However, all this indicates only the position before the Agreement on TRIPS. The present position as regards the term of protection has been stipulated in Article 33 of this Agreement which requires that the term of protection available shall not end before the expiration of a period of twenty years counted from the filing date. It is also understood that those members which do not have a system of original grant may provide that the term of protection shall be computed from the filing date in the system of original grant. Thus, one finds a uniform patent life of 20 years prescribed for all countries and in all sectors. All this takes away the freedom of the developing countries in this regard to determine the duration as per their economic requirements and policy considerations so as to protect their national interests.

Economic reason and the course of technical advance, including considerations of rate of obsolescence, may indicate that such \textit{a priori} determination was not based on any informed consideration of future developments. Moreover, in the particular matter of prior determination of a fixed duration, patent policy is far out of line with most other aspects of national policies.
of taxation, tariffs, fees investment priorities etc. At the same time as has been observed: "legal provisions governing patent duration are not, by themselves, sufficient to state with any confidence what the actual duration of patents tends to be. This is because patent policies and practices in many developing countries permit various means of renewing or maintaining patents, which may lead to varying periods of actual patent life within the basic period fixed in the patent laws. In addition, the effective economic life of an invention is not necessarily commensurate with the legal life of the patent. It may be shorter."

In this direction, the question of prolonging the economic life of an invention has been summarised in the following way:

Patentees may succeed in extending the time period of control (a) through procedural devices, especially through delays in the pendency of the patent between application and issuance;115 (b) through secret use of the invention prior to the application for a patent, or through incomplete disclosure, making it impossible for those without special "know-how" to use the invention even after expiration of the patent; (c) through the successive patenting of strategic improvements of the invention which make the unimproved invention commercially unusable after expiration of the original patent; (d) through creation of a monopolistic market position based on the goodwill of a trademark associated with the patented product or process, where the mark and the consumer loyalty continue after expiration of the patent; and (e) through licensing agreements which survive the original patent because they license a series of existing improvement patents and a possibly endless succession of future patents.

113 See Doc. TD/B/AC.11/19/Rev. 1, n.13, p. 55.
114 Machlup, n. 102, pp. 10-11.
115 This can apply only when the duration of the patent rights runs from the date of the grant as in the United States.
116 A trademark is a sign "used on" or in connection with the "marketing" of, goods. In the sense of sign "used on"
Further two reasons have been assigned in an UNCTAD 117 report in connection with the longer economic life of an invention. One is that a company holding a patent may undertake other research and additional patenting to protect improvements on the original invention even after the life of its patent, in a legal sense, has ended. In this way the company can steadily extend the area and duration of its monopoly. The other reason for extension of the effective economic life of the invention beyond the legal life of the patent is that production and marketing of the product may, during the patent life, have developed on a large scale and the firm will have a considerable position in terms of market contacts. Hence, the possibilities for new competitors to enter the market on the same terms of supply as the patent holder may be very limited; in these circumstances trademark rights may be more significant than patent rights.

Procedures for Checking the Patentability of Inventions

Checking the patentability of the invention against the tests of world-wide or national novelty and non-obviousness

Contd....

means that it may appear not only on goods themselves but on the container or wrapper in which the goods are when they are sold. A sign used in connection with the "marketing" of goods means mainly the appearance of the sign in advertisements (newspapers, television etc) or in the shop windows of the shops in which the goods are sold. Lakshman Kadirgamar, "Objects of Industrial Property: Reasons for Granting Patents", in WIPO Publication, n. 57, p. 20.

117 Doc. TD/B/AC.11/19/Rev.1, n. 13, p. 55.
requires a search of the state of the art which results in the preparation of a search report containing references to the descriptive documents and other sources of the relevant prior art. Standards of examination vary greatly. Some countries conduct only procedural examination to ensure that submitted applications are complete and correctly drawn. Others conduct substantive examinations as to novelty, inventive step, and the other patent requirements. Most countries conducting substantive examinations also search patent records to ensure uniqueness, i.e., to ensure that a single patent is granted to a single invention.

In patent systems prescribing substantive examination before grant, the legal concept of novelty constitutes one of the oldest requirements the invention disclosed in a patent application has to satisfy. Novelty has also played and still plays a decisive role in patent systems without such examination in that such systems often provide for revocation actions before national courts where novelty constitutes one of the requirements to be fulfilled for a patent to be maintained. A competent administration which carries out examinations as to substance maintains a search file in which documents relating to the state of the art are arranged in accordance with a classification system providing for a fine subdivision of the entire technology according to technical fields.

118 Mackley, n. 21, p. 151.

Traditionally, most industrialised countries have for a long practised system of examination as to substance before the grant of protection. This is in particular the case in Australia, Austria, Canada, Czechoslovakia, Germany, Hungary, Ireland, Japan, the Netherlands, the Nordic countries, Poland, Romania, Russia, the United Kingdom and the United States.

As regards recently adopted laws, a strong trend towards the introduction of examination as to substance can be observed. Some patent laws provide for simple registration after examination as to form of the patent application (Algeria, Iraq, Nigeria, Member countries of OAMPI, Sudan). Among the other recent laws several categories have to be distinguished. Some countries (Colombia, France, Peru) have a system which provides only for a search but not for an examination as to substance. In Colombia and Peru a search report is issued by the competent administration only in case of opposition and such a report is limited to documents produced in evidence by the parties. In France, however, a search report covering all prior art is established for all patents ex officio by the International Patent Institute in The Hague. In the procedure of establishing the search report the applicant has an opportunity to present observations on a provisional search report and to amend his claims; in a second stage of procedure the revised draft on the search report is published, giving an opportunity to third parties to present observations and to the applicant to reply to those observations; only then is the search report drawn up in its final form. After
this procedure, the final search report is likely to contain all relevant information on prior art permitting an expert in the technical field to evaluate whether the invention is novel and involves an inventive step. Although the competent administration does not draw any conclusions from the search report, the fact that the search report is published together with the patent helps to exclude the grant of invalid patents. All the other countries which have adopted new patent laws including in particular Brazil, India and Israel provide for examination of the patent application as to substance.

The system of "deferred examination" introduced in several countries constitutes a special feature of the examination procedure. Under this system, a patent application is examined as to substance by the competent administration only on request by the applicant or a third party, which must be made, together with the payment of a special fee, within a certain time limit; on the expiry of this time limit the application lapses if no such request has been made. Thus inventions in which the applicant loses interest and in which nobody else is interested because they seem to be economically unimportant do not have to be examined as to substance by the competent administration. Such a system has been introduced by Australia, Germany, Hungary, Japan and the Netherlands; the EPC has also adopted it, and it is under consideration in the United Kingdom. The time limit for request varies between 2 years (Brazil) and 7 years (Germany, Japan, Netherlands);

120 Doc. TD/B/AG.11/19/Rev. 1, n. 13, pp. 6-7.
Australia (5 years) and Hungary (4 years) have adopted an intermediate position. The system of deferred examination is often coupled with a system of "early" publication of applications even if the examination procedure has not yet started, remaining for a long time inaccessible to the public. Early publication is provided for in Australia, Brazil, France, Germany, the Netherlands, Nordic countries. The purpose of this pre-grant publication is to give early notice to the public of an early pending application. The time of this early publication is in all the mentioned countries the same: 18 months after the priority date (the same applies under the PCT and the EPC).

Two countries of this group — Germany and the Netherlands republish applications when they have been accepted for the purposes of opposition; however, not all applications reach that stage. In addition these two countries provide for the possibility of obtaining a search report before a request for examination has been made, so that preliminary information on the prior art with respect to the invention is available already at an earlier stage.

In Israel preference may be given to the processing of applications for the protection of inventions which have already been used without the owner's authorization or where a patent grant is urgent because it is intended to exploit the invention in Israel under licence. Similar preferential treatment is provided for also in Japan, and the United States with respect to inventions relating, for example, to the protection of the environment.

121 Ibid, pp. 7-8.
The search normally covers in principle all publications likely to be relevant, including patent documents, regardless of where and when they were issued. However, in practice that standard is frequently met incompletely, in particular because of language difficulties. In some countries the scope of novelty search is limited by the law. Among the countries that have adopted new laws, Australia and India, like the United Kingdom, limit the scope of search to patents and other publications issued in the country. However, the Indian law envisages the possibility of world-wide search and gives power to require it.

Although the laws of many countries provide for examination as to substance, the question remains whether all those countries dispose of the means to carry out the necessary search effectively. It is obvious that developing countries in particular can only build up step by step the qualified staff and systematically arranged documentation which is necessary for a thorough examination of patent applications with respect to the requirements of patentability. In this context, world-wide work sharing as under the PCT-combined with regional concentration of efforts has been suggested to constitute methods of facilitating the solution of problems.

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involved in search and examination. Moreover, the grant of a patent by the competent administration does not amount to final proof of its validity. The value of a patent depends to a large extent on the degree of the probability of its validity; that is to say how far the requirements of patentability have been met. This is important for the use of patents as vehicles for trade in technology since the purchaser of technology covered fully or partly by patents is interested in obtaining a position that is not likely to be endangered by the invalidation of those patents. Moreover, the issue of invalid patents burdens the patent documentation and dilutes the information effect of the patent system. Whenever there is litigation regarding the validity of a patent such litigation could result in the patent ultimately being declared null and void. It is to be noted that with a high frequency patents granted even in countries with well established patent office are subsequently declared to be invalid by the courts.

Period of Grace for the Payment of Fees

One of the important common rules of substantive law of considerable significance for the maintenance of industrial

124 Ibid.

125 For example, in the 25 years prior to 1948 the Supreme Court of Canada found inventions in only 10 of 42 patents that came before it for consideration. In the United Kingdom 56 percent of invalidations by the courts has been reported for the period 1918-1949. Similarly, the United States Courts of Appeals invalidated 62.7 percent of patents litigated during the period 1948-1954. See Royal Commission on Patents, Copyright and Industrial Designs, Report on Patents of Inventions (Ottawa, 1960), pp. 8-10.
property rights is contained in Article 5 bis of the Paris Convention. This provision of the Convention is in part of a procedural nature under which "(1) period of grace of not less than six months shall be allowed for the payment of the fees prescribed for the maintenance of patents, subject, if the domestic legislation so provides, to the payment of a surcharge. (2) The countries of the Union shall have the right to provide for the restoration of payments which have lapsed by reason of non-payment of fees." Thus, Article 5 bis provides for a grace period for the payment of maintenance fees for industrial property rights and deals with the restoration of patents for invention in case of non-payment of fees.

In most countries the maintenance of certain industrial property rights, mainly the rights in patents for invention, is subject to the periodic payment of fees. For patents, the maintenance fees must generally be paid annually. They are the so-called annuities. Immediate loss of the patent for invention in the event that the annuity is not paid at the due date would be too harsh a sanction. Therefore, the Paris Convention provides for a period of grace, during which the payment can still be made after the due date with the effect to maintain the patent for invention. That period is six months. It is a minimum period and the countries may grant a longer period.

126 Kadirgamar, n. 57, p. 54.
The delayed payment of the annuity may be made subject to the payment of a surcharge. Both the delayed fee and the surcharge must be paid within the grace period. During the grace period, the patent for invention remains provisionally in force. If the payment is not made during the grace period, the patent for invention will lapse retroactively, that is, as of the original due date of the annuity. The grace period is expressly limited to fees for the maintenance of industrial property rights. It does not apply to fees for the acquisition of such rights, that is, it does not apply to the fees payable when filing the application or asking for examination as to substances. Article 5 bis (2) gives the member countries the right to provide for the restoration of a patent for invention in cases where the patent has lapsed because of non-payment of fees. It deals, therefore, with the situation where a patent for invention has already lapsed, as distinct from the rule on the grace period which should help in preventing such lapse. This last provision is not of much legal and practical significance. It provides for a right of the national legislator which would exist even without such provision. It may, however, serve some purpose as an indirect admonition to member countries to make provision for the situation of lapse of patents for invention and to consider the solution of restoration. In fact, many

countries do provide, under certain restricted conditions, for the restoration of patents for invention which have lapsed due to non-payment of annuities.

SUMMATION

The Paris Convention at present has a constraining effect in that developing countries are not encouraged to introduce in their patent legislations elements which can support their domestic inventors and be geared to their needs. Instead, the Convention induces all member countries to design laws which, whatever their broad contents may be, rarely differentiate between the situations of domestic and foreign inventors. This position has been kept intact in the TRIPS Agreement as the concept of national treatment provided therein is similar to that followed in the Paris Convention. Therefore, any departure from the national treatment principle should be on substantive matters, such as the duration of the patent protection, the conditions of novelty etc. Such an approach can help in the promotion of invention in developing countries and consequent strengthening of their domestic scientific and technological capabilities which require different types of patents, different conditions and different potential rewards.

128 Kadirgamar, n. 57, p. 54.
Although the right of priority offers practical advantages to the applicants desiring protection in many other countries but the inclusion of multiple priorities goes against the interests of developing countries. The examples of advantages conferred are: applicant is not required to present all applications at home and in foreign countries at the same time as he has 12 months to decide in which countries to request protection; it protects them from the loss of novelty that would occur, in the case of non-simultaneous application, in all those countries which insist on the absolute rather than relative criterion of novelty; publication or exploitation of an invention by anyone does not, during the priority period, invalidate or otherwise affect the subsequent filing of patent applications in other countries for which the priority privilege is claimed.

On the other side, the inclusion of multiple priorities through broad interpretation of the Paris Convention, has the effect of claiming on the part of a patentee, retrospective protection of a particular invention and thereby putting third parties who have started exploitation in good faith to hardship. In this direction, the scope of multiple priorities needs to be curtailed vis-a-vis third parties failing which the situation may constitute a strong disincentive to initiate research and development activities in developing countries. In the absence of knowledge to nationals of an application made in some other country in the world, investments of time and money may even become useless and also discourage the putting into
use of new inventions. So as to protect the developing countries' interest there is also a need to make some changes in conditions governing priority. To reduce suspense and uncertainty of potential inventors and would be users of technology in the field covered by the patent application, the priority period should be reduced. As regards the rights of nationals that may in good faith apply for a patent during the priority period claimed by a foreign applicant, possibility of granting preferential treatment to developing countries needs to be explored. The same can be true with respect to duration of the priority period for inventions originating in developing countries. In order to avoid the dichotomy between the fact of application and its result, an obligation needs to be imposed on the applicant for a patent who claims priority right to indicate or inform the result of such application in other countries to the competent authorities. Concerning the result of such application, it is also necessary to provide for exchange of information among national patent offices.

The benefit conferred on foreign applicants under Article 4 bis (5) stimulates the delay in filings claiming a priority right. The effect of the rule is that foreigners can obtain a protection that in fact may be one year longer than that available to nationals and, therefore, the former may be placed in a privileged position vis-a-vis the latter. This has been qualified as being at variance with the national
interest and contradicting the national treatment principle provided for in Article 2 of the Convention. Therefore, the possible ways of amendment of Article 4 bis (5) needs to be analysed in order to avoid a further disadvantageous treatment to nationals.

To avoid the situation of developing countries being made dumping grounds for medicaments often rejected abroad in the case of so-called "fraudulently procured" patent, i.e., the patent cancelled in one country continues to enjoy protection in other countries,—the role of compulsory mutual exchanges of information among countries in respect of results of litigation on the validity of a patent becomes relevant in this direction. The inclusion of such compulsory exchange of information in the Paris Convention would thus avoid an unfavourable impact of the principle of independence of patents on the patent granting country.

A major issue in the granting of a patent is the consideration of what is a patentable invention. Two main aspects are relevant in this area. One relates to the legal standards provided for in each patent law for an invention to be patentable. These legal standards have been traditionally considered to be novelty, inventive activity and industrial applicability. The interpretation of these standards needs to be altered so as to take into account the specific national needs of the patent granting country. The second aspect relates
to the subject-matter of patentability. As will be shown in a chapter ahead, most countries generally exclude from patentability some specific sectors considered of social interest and listed in the relevant statutes which include food, medicines, drugs, inventions relating to atomic energy, new varieties of plants and animals etc. In the case of developing countries, however, it is important that the competent authorities should be given the flexibility to exempt from patentability subjects concerning all kinds of products and processes for the manufacture of such products, in accordance with the criteria of national economic development, public health, defence and public interest in general. Closely related to the rights of the patentee is the issue of the duration of these rights which rather than being fixed arbitrarily, should be related to the importance of the invention and to its social benefit.

As has been suggested, "an alternative possibility and a 'more feasible one', is to recognize different stages in the duration of the patent - a first period of a rather short time where the patentee would enjoy ample rights, a second stage where the patent would be subject to an adequate licensing system and possibility utilization by the government, and subsequent periods during which the patent could last if there is sufficient proof

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of exploitation and there is a social interest in maintaining the privilege."

However, the recent tendency of the industrialised countries to increase the unifying and harmonising role of the Paris Convention, which has so far been limited, has been challenged by the developing countries as being against their fundamental interests of stimulating their technological and industrial progress. Thus, the developing countries want to maintain their freedom to adopt their patent regime to their economic needs. A critique of the provisions of the Paris Convention has been made in the next chapter.