

24: Patents: Disclosure Obligations

Article 29 Conditions on Patent Applicants

1. Members shall require that an applicant for a patent shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art and may require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application.
2. Members may require an applicant for a patent to provide information concerning the applicant's corresponding foreign applications and grants.

1. Introduction: terminology, definition and scope

A patent application includes the specification, the claims and the summary of the invention. The specification (or description) of the invention is generally written like a science or engineering report describing the problem the inventor faced, the prior art and the steps taken to solve the problem. In some jurisdictions, the applicant must also provide a characterization of the "best mode" of solving the problem, in order to facilitate others' practicing the invention upon the expiry of the patent by revealing the best-known way (at the time of the patent application) of doing so.⁸⁶⁸

The essential goals of the specification are to substantiate the evidence of completion of the act of invention,⁸⁶⁹ that is, whether the inventor has effectively made a patentable invention; and to make new technical information available to the public so others are able to recreate the invention and improve upon it.⁸⁷⁰

⁸⁶⁸ See, e.g. Jay Dratler (Jr.), *Intellectual property law: commercial, creative and industrial property*, vol. 1, Law Journal Seminars-Press, New York 1996, p. 2-85 [hereinafter Dratler, 1996].

⁸⁶⁹ See, e.g., Mark Janis, *On courts herding cats: contending with the "written description" requirement (and other unruly patent disclosure doctrines)*, Washington University Journal of Law and Policy 2000, vol. 2, p. 68 [hereinafter Janis].

⁸⁷⁰ See, e.g., Robert Merges and Richard Nelson, *On limiting or encouraging rivalry in technical progress: the effect of patent-scope decisions*, The Journal of Economic Behaviour and Organization 1994, No. 25, p. 129 [hereinafter Merges and Nelson].

2. History of the provision

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Disclosure has historically been one of the fundamental principles of patent law. It provided one of the early justifications for the granting of patents.⁸⁷¹ The justification of patent rights based on disclosure was in some cases put in the form of a “social contract” theory: “society makes a contract with the inventor by which it agrees to grant him the exclusive use of the invention for a period and in return the inventor agrees to disclose technical information in order that it will later be available to society.”⁸⁷²

Another part of the patent application is a set of claims which should define, in precise terms, what the inventor considers to be the specific scope of the invention.⁸⁷³ The patent claims serve a quite different function from the specification: they distinguish the inventor’s intellectual property from the surrounding terrain,⁸⁷⁴ that is, they define the technological territory that cannot be invaded by third parties without risking an infringement suit. The way this is done varies from jurisdiction to jurisdiction. As explained in Chapter 17 (Section 1), some countries take a literal approach, whereas others rely on the doctrine of functional equivalents.

The specification and claims are closely related. There must be a correlation between the scope of the disclosure and the scope of the claims. The former should “support” the latter, in order to ensure that the exclusivity granted to the patent owner is justified by the actual technical contribution to the art.⁸⁷⁵

TRIPS includes specific obligations on the disclosure of the invention, but leaves WTO Members the freedom to determine its relationship with the claims and, in particular, the complex issue of claims interpretation.⁸⁷⁶

2. History of the provision

2.1 Situation pre-TRIPS

While the specific requirements of the obligation to disclose the invention and their practical enforcement (by patent offices and courts) vary among countries,

⁸⁷¹ “In the absence of protection against imitation by others, an inventor will keep his invention secret. This secret will die with the inventor and society will lose the new art. Hence, a means must be devised to induce the inventor to disclose his secret for the use of future generations. This can best be done by granting him an exclusive patent which protects him against imitation” (Edith T. Penrose, *The economics of the international patent system*, The Johns Hopkins Press, Baltimore 1951, p. 32 [hereinafter Penrose]).

⁸⁷² Penrose, p. 32. Lord Mansfield was perhaps the first jurist to formulate the social contract theory when, in a 1778 case, he pronounced that “the law relative to patents requires, as a price the individual should pay the people for his monopoly, that he should enrol, to the very best of his knowledge and judgment, the fullest and most sufficient description of all the particulars on which the effect depended, that he was at the time able to do”. *Liardet v. Johnson*, [1778] 1 WPC 52 at 54.

⁸⁷³ The claims are the “metes and bounds” of patent rights, see *Markman v. Westview Instruments Inc.*, 517 US, 370, 372 (1996).

⁸⁷⁴ See, e.g., Merges and Nelson, p. 129.

⁸⁷⁵ For a discussion on this relationship under U.S. and European law, see Janis, pp. 55–108.

⁸⁷⁶ See, e.g., John Duffy, *On improving the legal process of claims interpretation: administrative alternatives*, Washington University Journal of Law and Policy 2000, vol. 2, reproduced in Richard R. Nelson, *The sources of economic growth*, Harvard University Press, Cambridge (USA)-London (UK), 1996, pp. 109–166; Carlos Correa, *Integrating Public health Concerns into Patent Legislation in Developing Countries*, South Centre 2000, p. 81 [hereinafter Correa, 2000a].

such obligation was a well established element in patent law at the time of the negotiation of TRIPS.

The best mode requirement (which, as discussed below, is not mandatory under the Agreement) was well established under U.S. law, despite some ambiguities,⁸⁷⁷ but it was not provided for in the legislation of most other countries, including in Europe and Japan. Moreover, the obligation (also non-mandatory) to provide information concerning the applicant's corresponding foreign applications and grants had no significant precedents, if any.

2.2 Negotiating history

2.2.1 The Anell Draft

"3. Obligations of Patent Owners

The owner of the patent shall have the following obligations:

3.1 to disclose prior to grant the invention in a clear and complete manner to permit a person versed in the technical field to put the invention into practice [and in particular to indicate the best mode for carrying out the invention];

(See also point 1.3 above)⁸⁷⁸

3.2 to give information concerning corresponding foreign applications and grants;

3.3B to work the patented invention in the territory of the Party granting it within the time limits fixed by national legislation;

3.4B in respect of licence contracts and contracts assigning patents, to refrain from engaging in abusive or anticompetitive practices adversely affecting the transfer of technology, subject to the sanctions provided for in Sections 8 and 9 below."

The draft provision on "obligations of the patent owner" was one of the most controversial in the whole TRIPS negotiations, since developing countries tried to incorporate an obligation to work the patented invention locally (see paragraph 3.3B, above). Equally, developing countries sought to include a clause against abusive or anticompetitive licensing practices on the part of patent holders (see paragraph 3.4B, above).

2.2.2 The Brussels Draft

The first two draft paragraphs were essentially the same as under the current Article 29. In addition, the Brussels Draft still contained references to a local working obligation and abusive or anti-competitive licensing practices. By contrast to

⁸⁷⁷ See, e.g., Dratler, 1996, pp. 2–85; Charles Hauff, *The best mode requirement of the U.S. patent system*, in Michael Lechter (Ed.), *Successful Patents and Patenting for Engineers and Scientists*, IEEE Press, New York 1995, p. 219.

⁸⁷⁸ Point 1.3 of the Anell Draft referred to patentable subject matter and provided: "Requirements such as filing of an adequate disclosure in a patent application and payment of reasonable fees shall not be considered inconsistent with the obligation to provide patent protection." See Chapter 17.

3. Possible interpretations

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the Anell Draft, however, these obligations were optional:

“3. PARTIES may provide that a patent owner shall have the following obligations:

(a) To ensure the [working] [exploitation] of the patented invention in order to satisfy the reasonable requirements of the public. [For the purposes of this Agreement the term “working” may be deemed by PARTIES normally to mean manufacture of a patented product or industrial application of a patented process and to exclude importation.]

[(b) In respect of licensing contracts and contracts assigning patents, to refrain from engaging in abusive or anti-competitive practices adversely affecting the transfer of technology.]

4. PARTIES may adopt the measures referred to in Articles [31, 32 and 40]⁸⁷⁹ below to remedy the non-fulfillment of the obligations mentioned in paragraph 3 above.”

In the subsequent negotiations, the working obligation disappeared from the final text of Article 29 as a result of the compromise struck in December 1991, which was reflected in the wording of Article 27.1 *in fine*. Article 29, as adopted, was finally limited to matters relating to the disclosure of the invention for purposes of examination and of execution of the invention after the expiry of the patent term. The clause on anti-competitive licensing practices was moved to the more general provision under Article 40, TRIPS, thus disconnecting it from the patent application procedure.

3. Possible interpretations

Article 29 contains one mandatory and two facultative elements. First, it requires Members to disclose the invention “in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art”. It, thus, unsurprisingly incorporates the “enablement” requirement, as usually established in national patent laws.⁸⁸⁰ Such requirement aims at ensuring that patents perform their informative function, by demanding that the patent specification enable those skilled in the art to make and use the full scope of the invention without undue experimentation.⁸⁸¹

Second, Article 29.1 introduces, in a facultative manner, the best mode requirement inspired by U.S. law. This requirement aims at preventing inventors from obtaining protection while concealing from the public the preferred embodiments

⁸⁷⁹ As in the final TRIPS text, the referenced Articles referred to compulsory licensing, revocation/forfeiture of patents and the control of anti-competitive licensing practices.

⁸⁸⁰ Under current U.S. law, for instance, the enablement doctrine is codified in 35 U.S.C. No. 112, para. 1 (1984) which provides that “[T]he specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention”.

⁸⁸¹ The directions given in the specification for performing the invention must be such as to enable the invention to be carried into effect without an excessive number of experiments. See, for instance, the English case of *Plimpton v Malcolmson* (1876) 3 Ch D 531, 576.

of their inventions. Unlike the enablement requirement, which requires an objective analysis, the best mode requirement is a subjective one: what constitutes the best mode of executing the invention depends upon what the inventor knew and considered to be the best way of executing his invention, at the time of the filing of the patent application⁸⁸² or the priority date.⁸⁸³ This information rarely includes the actual know-how for the execution of the invention, since at the time of filing there is seldom production experience.

Third, Article 29 allows Members to require information concerning the applicant's corresponding foreign applications and grants. Such information may be important, particularly for patent offices in developing countries, in order to improve and speed up the examination process. However, such requirement does not affect the basic principle of independence of patent applications.⁸⁸⁴ The Agreement does not refer to the consequences of the failure to comply with this requirement. However, since this requirement may be a condition imposed on patent applicants, an application may be rejected if the applicant fails to provide the referred to information.

The Agreement leaves considerable room for the implementation of the standards provided for in Article 29. WTO Members could for example strictly implement these standards with a view to facilitating competitive innovation, adapting protected inventions to local conditions, or merely practicing them once the term of protection expires.⁸⁸⁵

Another aspect left to WTO Members is the extent to which the applicant would be obliged, if several embodiments of the invention were claimed, to provide sufficient information to enable the reproduction of *each* embodiment for which the applicant seeks patent protection. A strict enablement requirement may mandate disclosure of each embodiment.⁸⁸⁶ This approach would prevent excessively broad patents covering embodiments of the invention that have not been described

⁸⁸² See, e.g., Dratler, 1996, pp. 2–86.

⁸⁸³ The priority date means the date on which the first application was made, in accordance with Article 4 of the Paris Convention. The purpose of this right is to enable someone who has filed a patent application in one country to file posterior applications for the same patent in the other countries of the Paris Union. In this scenario, it is possible that a third person in one of these other countries files an application for the same patent before the original applicant has a chance to deposit his application for that country. The priority date results in the recognition of the original filing in all the other Paris Union countries. Thus, any applications by third persons intervening between the original filing in one country and any subsequent filings by the original applicant in the other countries will be considered posterior to the original filing. The condition is, however, that the subsequent filings in the other countries be effectuated within 12 months from the date of filing of the first application. For details, see Article 4A, B, C of the Paris Convention.

⁸⁸⁴ "Patents applied for in the various countries of the Union by nationals of countries of the Union shall be independent of patents obtained for the same invention in other countries, whether members of the Union or not" (Paris Convention for the Protection of Industrial Property, Article 4*bis*(1) (1967)).

⁸⁸⁵ See, e.g., UNCTAD, 1996, p. 33.

⁸⁸⁶ However, some patent offices, such as the European Patent Office, accept that, in order to be valid, the description need not include specific instructions as to how all possible variants within the claim definition can be obtained. See, e.g., Trevor Cook, Catherine Doyle, and David Jabbari, *Pharmaceuticals biotechnology & The Law*, Stockton Press, New York 1991, p. 80.

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by the applicant in a form that effectively allows their reproduction by a third party.

It may also be possible for Members to introduce a written description requirement in order to determine whether patent disclosure reasonably conveys to one skilled in the art that the inventor possessed the claimed subject matter at the time of filing the application.⁸⁸⁷

Further, Members may define how the relationship between the specification and the claims is to be considered,⁸⁸⁸ as well as the method of interpretation of claims. Moreover, WTO Members may decide whether such requirements would be applied during original examination of the application by the patent office and/or on occasion of post-grant opposition procedures.⁸⁸⁹

One important issue not addressed by TRIPS relates to the disclosure of inventions relating to micro-organisms⁸⁹⁰ and other biological materials. In these cases, the written description is insufficient; access to the relevant knowledge is only possible through access to the biological material itself.⁸⁹¹ Such access may be permitted to third parties (for experimental purposes) after the publication of the patent application, as provided under European law, or after the patent grant, such as in the case of the USA.

Finally, a controversial issue is whether national laws may require that the patent applicant inform the country of origin of the biological material, and/or demonstrate that the applicant has complied with the relevant rules with regard to access to such material. This requirement⁸⁹² would help to ensure compliance with the benefit sharing provisions of the Convention on Biological Diversity, and to avoid possible misappropriation (“biopiracy”) of genetic resources and associated knowledge.

The consistency of such additional requirement⁸⁹³ with Articles 27.1 and 29 has been questioned, particularly if non-compliance would lead to the rejection of the patent application or the invalidation of a granted patent.⁸⁹⁴ According to the U.S.

⁸⁸⁷ The negotiating history of Article 29.1 would indicate, however, that there was not intention to incorporate a “written description” requirement. See, e.g. Janis, p. 59 and 88, fn. 133.

⁸⁸⁸ For instance, under the European Patent Convention the claims must be “clear and concise and be supported by the description” (“support requirement”) (Article 84).

⁸⁸⁹ This means that a third party may challenge a patent granted by arguing that the disclosure is not sufficient for a person skilled in the art to carry out the invention. See Janis, p. 89.

⁸⁹⁰ The Budapest Treaty (1977) has created a system for the international recognition of the deposit of microorganisms that facilitates the tasks of patent offices and provides guarantees to the applicants/patent holders.

⁸⁹¹ It is important to ensure that the scope of protection for biological material patents corresponds to the material actually deposited. If there is no correspondence between the description and the deposited material, the patent (or claim) may be deemed void.

⁸⁹² An obligation of this type was incorporated in the draft of the European Union Directive relating to patents on biotechnology, as recommended by the European Parliament in July 1997. Though it was removed from the finally approved text, Recital 27 of the Directive mentions an obligation to provide information as to geographical origin of biological material where this is known, without prejudice to patent validity. See European Directive on Biotechnological Inventions No. 96/9/EC of March 11, 1996.

⁸⁹³ Which has been established in some national laws (see Section 6.1 below).

⁸⁹⁴ “The origin of the genetic resources and of other circumstances related to their acquisition is not generally necessary for the invention to be carried out by a person skilled in the art”, Pires de

government, imposing such requirement would be

“an extremely ineffective way for countries that are the source of genetic resources or traditional knowledge . . . In addition, imposing additional requirements on all patent applicants only increases the cost of obtaining patents that would have a greater adverse effect on individual inventors, non-profit entities, and small and medium sized businesses, including those in developing countries.”⁸⁹⁵

For some WTO Members, this matter would require an amendment of the Agreement (see Section 6.4 below). It has also been suggested that the acquisition and enforcement of rights in inventions, knowingly derived directly or indirectly from an illegal act, such as the unauthorized acquisition of genetic resources, may be deemed abusive. As a result, patents so obtained may be deemed valid but not enforceable.⁸⁹⁶

4. WTO jurisprudence

There have been no cases under the DSU on this matter.

5. Relationship with other international instruments

5.1 WTO Agreements

There are no other WTO Agreements relevant to this subject.

5.2 Other international instruments

The Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure (1977), amended in 1980⁸⁹⁷ constitutes a union for the international recognition of the deposit of micro-organisms for the purposes of patent procedure. Contracting States allowing or requiring the deposit of micro-organisms for the purposes of patent procedure shall recognize, for such purposes, the deposit of a micro-organism with any international depositary authority.

It is also interesting to note that at the meeting of the WIPO Standing Committee on the Law of Patents on September 6–14, 1999, Colombia proposed the

Nuno Carvalho, *Requiring disclosure of the origin of genetic resources and prior informed consent in patent applications without infringing the TRIPS Agreement: The problem and the solution*, Re-Engineering Patent Law 2000, vol. 2, p. 380 [hereinafter Pires de Carvalho].

⁸⁹⁵ See WTO DOC. IP/C/W/162 (Oct. 29, 1999).

⁸⁹⁶ See, e.g. Pires de Carvalho, p. 395 and 399. This option would be based on the “fraudulent procurement doctrine”: “if patent applicants fail to be candid on matters that may have an impact on the final decision on patentability, such as novelty or inventiveness, then the patent may be invalidated. When the lack of candor regards matters that are not essential to the grant or rejection of the patent, then fraudulent procurement is sanctioned by non-enforceability. Enforceability is restored when the patent owner corrects the misrepresentations or other inequitable conducts—in other words, when *he cleans his hands*”. (ibidem, p. 397).

⁸⁹⁷ With a membership of 59 countries as of 15 July 2004 (see <<http://www.wipo.int/treaties/en/registration/budapest/index.html>>).

6. New developments

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following language (not finally adopted) to be included in the proposed Patent Law Treaty:

“1. All industrial property protection shall guarantee the protection of the country’s biological and genetic heritage. Consequently, the grant of patents or registrations that relate to elements of that heritage shall be subject to their having been acquired legally.

2. Every document shall specify the registration number of the contract affording access to genetic resources and a copy thereof where the goods or services for which protection is sought have been manufactured or developed from genetic resources, or products thereof, of which one of the member countries is the country of origin.”

6. New developments

6.1 National laws

In the Indian Patents (Second Amendment) Act, 2002, the grounds for rejection of the patent application, as well as revocation of the patent, include non-disclosure or wrongful disclosure of the source of origin of biological resource of knowledge in the patent application, and anticipation of knowledge, oral or otherwise. It has also been made incumbent upon patent applicants to disclose in their patent applications the source of origin of the biological material used in the invention.⁸⁹⁸

In 2000, Denmark amended the Patent Act, in part to implement the EC Directive on Biotechnological Inventions (see 6.3.1 below). Accordingly, based on the Act, the existing ministerial regulation on patents was amended by supplementing its paragraph 3 with the following provision:

“If an invention concerns or makes use of biological material of vegetable or animal origin, the patent application shall include information on the geographical origin of the material, if known. If the applicant does not know the geographical origin of the material, this shall be indicated in the application. Lack of information on the geographical origin of the material or on the ignorance hereon does not affect the assessment of the patent application or the validity of the rights resulting from the granted patent.

Breach of this provision could imply a violation of the obligation in the Danish Penal Code (par. 163) to provide correct information to a public authority.”

Article 31 of Brazil’s Provisional Measure No. 2.186–16 on access and benefit sharing (23 August 2001) provides that:

“The grant of industrial property rights by the competent bodies for a process or product obtained using samples of components of the genetic heritage is

⁸⁹⁸ In addition, Section 6 of the Indian Biological Diversity Act, 2002, states that anybody seeking any kind of intellectual property rights on a research based upon biological resource or knowledge obtained from India, needs to obtain prior approval of the National Biodiversity Agency (NBA). The NBA will impose benefit-sharing conditions. Section 18 (iv) stipulates that one of the functions of NBA is to take measures to oppose the grant of IPRs in any country outside India on any biological resource obtained from India or knowledge associated with such biological resource.

contingent on the observance of this Provisional Measure, the applicant being obliged to specify the origin of the genetic material and the associated traditional knowledge, as the case may be.”

In a similar vein, Article 13 of the Egyptian Law on the protection of intellectual property rights, 2002, provides as follows:

“Where the invention involves biological, plant or animal product, or traditional medicinal, agricultural, industrial or handicraft knowledge, cultural or environmental heritage, the inventor should have acquired the sources in a legitimate manner.”

6.2 International instruments

Article 3 of the draft Substantive Patent Law Treaty⁸⁹⁹ contains rules on disclosure and description of the inventions. Paragraph 1 of Article 3 establishes that:

“[...] The disclosure of the invention in the application as a whole shall be adequate, if, as of the date of filing of the application, it sets forth the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art, as prescribed in the Regulations.”

In addition, paragraph 2 of Article 3 establishes that

“[...] In respect of the disclosure, no requirement additional to or different from those provided for in paragraph (1) may be imposed.”

6.3 Regional and bilateral contexts

6.3.1 Regional

Under the “Common Regime on Access to Genetic Resources” of the Andean Group patent applicants are obliged to provide patent offices with information concerning the origin of the genetic resource in question and some proof of prior informed consent from government authorities as well as traditional knowledge holders.⁹⁰⁰ Any intellectual property right or other claims to resources shall not be considered valid, if they were obtained or used in violation of the terms of a permit for access to biological resources residing in any of the Andean countries, as regulated under that Decision.

⁸⁹⁹ Draft 5 of 19 December 2000, available at <http://www.wipo.org/scp/en/documents/session_5/pdf/splt_5.pdf>. Note that this draft has not yet turned into any legally binding agreement. Contrary to the TRIPS Agreement, which only sets up *minimum standards* for patents, this exercise aims at the international *harmonization* of substantive patent law. On an earlier draft of 1991 see WIPO, *Records of the Diplomatic Conference for the Conclusion of a Treaty Supplementing the Paris Convention as far as Patents are Concerned*, vol. 1: “First Part of the Diplomatic Conference, the Hague”, Geneva 1991, pp. 15–16 [hereinafter WIPO, 1991]. The draft Substantive Patent Law Treaty has to be distinguished from the WIPO “Patent Law Treaty”, adopted on 1 June, 2000. The latter constitutes a legally binding agreement, but it is limited to *procedural* provisions and does not make any attempt to harmonize *substantive* patent law. It is available at <<http://www.wipo.int/clea/docs/en/wo/wo038en.htm>>.

⁹⁰⁰ See Common Regime on Access to Genetic Resource, Andean Decision 391 of 02 July 1996. See also in this context the Biodiversity Law (No. 7788) of Costa Rica, enacted on 27 May 1998.

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The EC Directive on Biotechnological Inventions⁹⁰¹ alludes in Recital 27 to an obligation to provide information as to the geographical origin of biological material where this is known, without prejudice to patent validity.

6.4 Proposals for review

As analyzed in Chapter 21, Members of the Council for TRIPS have been discussing ways to address the unauthorized patenting of genetic material and associated traditional knowledge. In this context, developing country Members have been advocating the amendment of TRIPS to include, as a requirement for the granting of the patent, the applicant's obligation to disclose the origin of the genetic material at issue.⁹⁰² The African Group has proposed an amendment of Article 29 that would result in a *mandatory* disclosure requirement:

“Compared to other alternatives, Article 29 of the TRIPS Agreement seems to be the most suitable for an appropriate modification to contain these rights and obligations, by including the requirements for equity, disclosure of the community of origin of the genetic resources and traditional knowledge, and a demonstration of compliance with applicable domestic procedures. These requirements would formalise what in the view of the Group should be expected of all such patent applications. Given the failure of certain domestic systems to prevent patents that constituted a misappropriation of genetic resources and traditional knowledge, these requirements would be useful in preventing or minimising the repetition or even the increase of such cases.

The Group suggests that Article 29 be modified by adding the following as paragraph 3: 3. Members shall require an applicant for a patent to disclose the country and area of origin of any biological resources and traditional knowledge used or involved in the invention, and to provide confirmation of compliance with all access regulations in the country of origin.”⁹⁰³

Some developed country Members, on the other hand, have expressed their opposition to enforcing disclosure of origin of genetic resources through the patent system (see Chapter 21).⁹⁰⁴ Switzerland, while acknowledging that a disclosure obligation should be dealt with under the patent system, has proposed to pursue the matter outside the WTO, i.e. through an amendment of the WIPO Patent

⁹⁰¹ No. 96/9/EC of March 11, 1996.

⁹⁰² Next to the disclosure of origin requirement, these proposals also include obligations for the patent applicant to prove evidence of prior informed consent and fair and equitable benefit sharing in respect of the country where the genetic material originates. See the Joint Communication from the African Group, IP/C/W/404 of 26 June 2003 [hereinafter African Group June 2003] and the Submission by Bolivia, Brazil, Cuba, Dominican Republic, Ecuador, India, Peru, Thailand, Venezuela, IP/C/W/403 of 24 June 2003. See also the checklist submitted to the Council for TRIPS on 2 March 2004 by Brazil, Cuba, Ecuador, India, Peru, Thailand and Venezuela (IP/C/W/420).

⁹⁰³ See African Group June 2003, p. 6.

⁹⁰⁴ The EC has signalled agreement to discuss a disclosure requirement, but is opposed to treating this issue under the patent system. See Communication from the European Communities and their Member States to the Council for TRIPS of 17 October 2002, IP/C/W/383.

Cooperation Treaty, making disclosure a *voluntary* requirement for the patent grant.⁹⁰⁵

7. Comments, including economic and social implications

The nature of the patent bargain requires the patent applicant to make a full disclosure of the matter claimed for his benefit.⁹⁰⁶ This serves two purposes.

First, the information contained in patent specifications is an important tool for research and the advancement of technology. Access to this information, nowadays facilitated by the availability of several on-line and off-line databases, provides a useful tool to industry and scientific institutions.

Second, the technical information carried in a patent has to be put at the unrestricted disposal of the public at the expiry of the term of protection. The patent owner obtains a temporary monopoly, subject to the condition that the society at large may benefit from full use of the information once that term has elapsed.

The achievement of these two purposes critically depends on the completeness and quality of the patent description. If the applicant were able to conceal from the public the information necessary to execute the invention, these purposes would be defeated.

Moreover, the grant of a right to exclude is only justified when the inventor can prove actual possession of the information claimed to be inventive. The description, therefore, may play the dual role of ensuring full disclosure as well as limiting the scope of protection to what the applicant has actually invented.⁹⁰⁷

Ensuring the completeness and quality of patent disclosure, in a manner accessible to local researchers and industry, is essential in developing countries. Patent offices should pay attention to the quality of translation into the domestic language. However, the mere translation of patent applications as originally filed in other countries may not be sufficient in some developing countries to enable third parties to practice the invention.⁹⁰⁸ Patent offices may, hence, adopt rules requiring the proper identification and description of inventions in a manner understandable to local people skilled in the art.

Compliance by Members with Article 29 does not seem problematic, since the mandatory elements contained therein are in line with well-established practice in patent law. Members are free to introduce into national laws the non-mandatory elements of that provision. They would in general benefit from incorporating the

⁹⁰⁵ See IP/C/W/4001, p. 2: "Based on the PLT, national law may foresee that the validity of granted patents is affected by a lacking or incorrect declaration of the source, if this is due to fraudulent intention." Reiterated in IP/C/W/423 and the June 2004 Meeting of the TRIPS Council.

⁹⁰⁶ See, e.g. Peter Groves, *Source Book on Intellectual Property Law*, Cavendish Publishing Limited, London 1997, p. 202.

⁹⁰⁷ The importance of this limitation of the scope of protection was also stressed by the IPR Commission in its report, in particular with respect to the patenting of genetic material. The Commission recommended (p. 118): "If developing countries allow patents over genes as such, regulations or guidelines should provide that claims be limited to the uses effectively disclosed in the patent specification, so as to encourage further research and commercial application of any new uses of the gene."

⁹⁰⁸ See, e.g., UNCTAD, 1996, para. 132.

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best mode requirement,⁹⁰⁹ as well as the obligation to provide information about foreign applications and grants. In addition, Members enjoy considerable room to determine the specific contours of the disclosure obligations, as well as the relationship between description and claims and the form of interpretation of the latter.

Wherever this is possible, manufacturers prefer to keep processes secret. Indeed the sum total of know-how, both patentable and non-patentable, is often what gives the competitive edge, enabling the production of better products at affordable prices. Furthermore, trade secrets have the major advantage that they are unlimited in duration. For example, the secret process used for producing a well-known brand of Swiss spreading cheese goes back many generations, and the Swiss parent company goes to considerable lengths to ensure that its licensees around the world do not learn the secret. Thus, manufacturers will tend to disclose only to the extent that competitors could themselves reproduce the product were it not covered by a patent. It is this fact that weakens the utility of the patent systems as a source of information for developing countries.

As mentioned above, the disclosure of the origin of biological materials claimed in patent applications may have important economic implications. Such a disclosure would not be a necessary condition to but would facilitate claims of benefit sharing (under national access legislation in line with the CBD) by states from which the materials have been acquired. Many developing countries have significant expectations (albeit not confirmed in practice so far) about the income that compliance with benefit sharing obligations may generate.

Disclosure of the origin of biological materials may also facilitate the monitoring of patent grants in order to eventually challenge their validity, when states or other stakeholders consider that a misappropriation (“biopiracy”) has taken place. A critical issue in relation to the disclosure of origin is the extent to which such disclosure, if made compulsory, would be deemed compatible with obligations under TRIPS, particularly if non-compliance may lead to the revocation of a patent.

⁹⁰⁹ See also the IPR Commission recommendation (on p. 117 of the report) that “Developing countries should adopt the best mode provision to ensure that the patent applicant does not withhold information that would be useful to third parties.”