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## World Trade Organization Regulation on Intellectual Property Rights of the “Bio-Technology”

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*After establishing a series of agreements regarding Uruguay Round in 1995 and with the starting of activities of the World Trade Organization (WTO) the agreement on the intellectual property rights (TRIPS) comes into force modifying most of the current regulation on the protection of innovations, particularly of medicines and biotechnologies. The promoters of these modifications were confident that, in this way, it would be possible to hasten the innovative process, guaranteeing a fair compensation for the new products. These changes can have important consequences in the future of the agricultural sector since probably a reduced number of companies will totally control the seeds of different sectors. Also, the appearance of new entities in certain areas can have negative effects on their biodiversity and on the endemic species. Basically, this paper consists of two parts: first, a historical and judicial revision of the protection of intellectual property rights and second, a special technical and political-economic emphasis on the protection of this type of rights in relation to the World Trade Organization (WTO).*

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## Controversy over the protection

During the 60s and the 70s, the investigations institutes form a series of countries developed an important work with an outlook on the obtention of high performance hybrids. At first, it was believed that the best thing to do would be to spread them as fast as possible to increase the offer of basic foods, trying in this way to settle the famine in the world. But nowadays, most of the investigations on biotechnology are in the hands of the private sector, increasingly concentrated in a few companies as a consequence of three factors: the first one is the nature of plants since many of them permit to capture the total benefit derived from the innovations (like the hybrid corn); the second one is the introduction of important changes in the intellectual property rights protection regime in the United States since 1980 and, finally, the fact that it is possible to introduce sterility characteristics in the transgenic seeds hindering the reseeding and forcing the farmer to acquire new seeds every year. To sum up, nowadays the products which were previously considered "public goods" are privatized and those who do not pay the technological quote for their use have a restricted access to them.

There is a strong controversy when it comes to evaluate if it is fair or not to grant property or patents rights to protect innovations in animal and vegetal species and also about the limits of their scope. In 1980, the Supreme Court of the United States authorized a patent on an artificially produced micro-organism which absorbed oil spillages. This pioneering decision will make the way for a series of changes in the intellectual property rights regime in the country. One of the most important ones is the authorization for universities and their scientific teams to patent their innovations even if they used public financing to obtain them. This change was a turning point in the innovative activity of the most important universities in the United States, causing a considerable increase in this type of activity. Many scientists from these universities created small biotechnological companies which later would be fusioned or bought by the big conglomerates of the country. We could see as an indicator of the acceleration of the innovation process of the time of the granting of around 60.000 patents in 1980 by the United States Patents and Trademarks Office (USPTO), which in 2001 granted 160.000 patents.

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## **The intellectual property: industrial property and copyright**

The laws of intellectual property form the set of exclusive proprietary rights granted by the State for a period of time to individuals and legal entities performing literary, artistic and scientific works or inventions or innovations and to those who adopt commercial indications, like products and creations with a commercial purpose. The ideas, mathematical formulas, non-original work and in general everything, which does not comply with what is provided in Law, is not protected.

The industrial property includes inventions, patents, trademarks, industrial models and drawing and origin geographical indications. It is the exclusive right granted by the State to use or exploit industrial inventions or innovations or commercial indications performed by individuals or companies to differentiate their products or services according to the clients of the market. The holders of this right are entitled to exclude others from the commercial use or exploitation of their property without their authorization.

The term “intellectual property” comprises two kinds of rights: The “copyright” and the “industrial property”. The copyrights establish the protection for persons who create works of intellect and the industrial property protects those who create works and contributions, which the legislators considered that had to be also protected.

Unlike other property forms, which are eternally maintained passing from hands to hands, the intellectual property rights have a temporary limit, which will depend on the type of rights (moral or patrimonial, copyright or industrial rights). However, as a general rule, the moral rights are perpetual and the patrimonial ones expire according to the Bern Agreement 50 years after the death of the author although most of the countries of the European Union, including Spain, have established a period of 70 years after the death of the author. Once this period is expired, the work is considered to be in the public domain and it can be freely used as long as the moral rights of the author are respected, particularly the authorship acknowledgement. According to the World Intellectual Property Organization (WIPO), the owner of the intellectual property can use it in any way, so that any other individual or legal entity can legally use it without

the consent of the holder of the right. Naturally, the exercise of this right is subject to limitations.

The copyrights are related to artistic creations, like poems, novels, paintings, films, etc. The expression “copyright” makes reference to the main act, as regards literary and artistic works, that can only be executed by the author or with his consent (patrimonial right). This act is the production of copies of the literary or artistic work, like a book, a painting, a sculpture, a photograph, a film and the recent digital formats. The expression “copyrights” makes reference to the rights of the person who created of the artistic work, the author, who has certain specific rights over the creation (moral rights). For example, the right to prohibit a distorted reproduction, which can only be done by the author, while other rights, like the right to produce copies, can be exercised by other persons (patrimonial rights granted to an owner), for example, an editor who has obtained a license from the author for this purpose.

## **Intellectual property in living organisms**

### **Methods of protection**

There are five kinds of intellectual property protection of living organisms: the technical protection, the industrial secrets, the patents, the utility models and obtentor rights.

- The technical protection is related to the nature of the process or product and applies when the copy of the innovation implies a high level of difficulty or high costs. The level of protection depends on the level of incorporation of the innovation to the product. There are two extreme cases: the first one takes place when it is not possible to recover the innovation based on the product or process (hybrids and sterile seeds) and the second one when the innovation is absolutely recoverable (autogamous plants). In this last case, the seed is what constitutes the innovation.
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- The industrial secrets are a type of protection associated to seeds of hybrids and to certain processes which allow giving certain characteristics to commercial plants. It is usually used as a step previous to the request of a license or to the acknowledgement of the obtentor of varieties. As opposed to other intellectual protection modalities, the industrial secret does not give exclusive rights and it is not conditional on inventive novelty or relevance test records.
- The patents can be granted for processes and products like hybrid plants varieties, transgenic plants, processes to give them certain characteristics, vaccines, etc. In order to obtain them it is necessary to prove that the invention is a novelty and that meets the requirements of inventive relevance and industrial applicability, a concept that covers agricultural uses. In biotechnology, there are differences between countries as regards the patentability of micro-organisms, cellular lines, genes and genetic sequences and as regards the importance assigned to the product or process used.
- The utility models are a type of protection that can be applied to agricultural machinery and implementations, including their parts and covers the external disposition of the parts of a product. In this case, the requirements are less strict than those of the patents and the period of protection is also shorter.
- The obtentor rights cover the vegetable varieties obtained from the plant breeding as long as they are distinguishable, stable and uniform.

### **International agreements on the protection of intellectual property and the granting of patents: protection of vegetable material**

At an international level, we can mention a series of agreements and arrangements on the protection of the individual property and the granting of patents of the World Intellectual Property Organization (WIPO) already existing before the creation of the WTO. These are the agreements and arrangements:

- The Paris Convention for the Protection of Industrial Property (since 1883) which is applied to patents, trademarks, geographical indications and industrial designs and models and unfair competition.
- The Patent Cooperation Treaty which facilitates the request and registration of patents at an international level.
- The International Agreement for the Protection of Vegetable Obtentions establishes, since 1961, the criteria for the granting of protection of the vegetable obtentions which are materialized in the "obtention rights". The subscribing parties of this agreement become part of the International Union for the Protection of Vegetable Obtentions (UPOV as per the initials in Spanish).
- The Madrid Agreement which deals with the international registration of trademarks and tries to control the indications of false or fraudulent indications.
- The Trade Related Intellectual Property Agreement (TRIPS or ADPIC in Spanish) which was treated at the Uruguay Round (1986-1994) incorporated for the first time standards about the intellectual property in the trade multilateral system, establishing a series of basic principles about the industrial property and the intellectual property (patents, copyrights, trademarks, industrial designs, geographical indications, integrated circuits and commercial secrets) in order to reduce the differences as regards the methods to protect these rights in the signing countries and with the ultimate purpose of creating common international standards.

In the TRIPS agreement certain minimum protection levels are fixed by each government regarding the intellectual property of the other members of the WTO. In so doing, there is a balance between the long term benefits and the possible short term costs for the society.

The Agreement covers three matters: how to apply the basic principles of the trading system and other international agreements about

the intellectual property, how to provide the adequate protection for the intellectual property rights, how the countries must properly respect these rights in their territories and how to solve the differences regarding intellectual property among the WTO members, and also the establishment of a series of special temporary provisions during the period of insertion of the new system. However, in spite of the signature of this agreement, we still find many differences, both inside the WTO and between the developed countries when it comes to the establishment of the regulation of patents on plants and genetically modified animals and on the processes needed to produce them.

Besides, we must also mention that the TRIPS agreement is not binding on its members to adopt a system identical to the UPOV or to join it but many countries are enforcing the protection of vegetable varieties according to the obtentor rights and the adherence to the UPOV. Nowadays, the possibility to apply sui generis systems different from the UPOV in developing countries is studied.

In summary, the intellectual property of innovations related to plants, their parts or new varieties is protected, basically, through two systems: the system of obtentor rights (applicable to new vegetable varieties) and the system of invention patents (applicable to plants or cells, genes, seeds, processes for the transformation of plants and transformation vectors). In some countries, this last system is also applicable to vegetable varieties and hybrids.

### **UPOV agreement for the protection of vegetable obtentions**

Nowadays, we have two legal frameworks which protect the innovations as regards plant material. On the one hand, there is the legal framework prevailing in the United States, which includes the conventional patents apart from having a system of vegetable varieties similar to the European one and having a special law of vegetable patents (1930), only applicable to vegetable material asexually propagated. On the other hand, there is Europe which deems as inappropriate those mechanisms of protection of new varieties obtained through traditional enhancement methods (hybridization and selection). There, the Vegetable Varieties Rights were created.

In 1961, sponsored by the International Union for the Protection of Vegetable Obtentions, the UPOV Agreement is created which "provides for a sui generis way of protection of intellectual property, specifically adapted to the plant breeding method and elaborated to encourage the obtentors to create new vegetable varieties". The agreement establishes three criteria: the distinctiveness, that is, that they are clearly distinguishable from other varieties previously protected by the expression of at least one important feature; the homogeneity (the plants of the variety must be homogeneous between one another) and the stability since the features must remain unaltered after repeating the reproduction or propagation (this last criteria implied difficulties for the hybrids which have been solved in the UPOV agreements).

In 1991, the UPOV Agreement was reviewed and the introduced changes became part of the European Community Vegetable Varieties Right (1995). Mainly, the rights of the vegetable obtentors were strengthened regarding the material of the protected variety to be propagated, the multiplication, sale, trading, export, import etc. Also, some improvements were included regarding the potential protection of all the plants genres and species.

The concept "essentially derived varieties" was introduced to allow the breeder to control the use of the variety in case it suffers random mutations. Are understood to be such the varieties "mainly derived from an initial variety or from a variety that in turn derives from the initial one and which keeps the expression of the essential characteristics derived from the genotype or combination of genotypes of the initial variety". In this way, the rights of the obtentors are protected. Otherwise, these rights would soon lose the value of their intellectual property as it had been happening when a breeder made "cosmetic" changes on a previous variety without paying for it.

Among many measures of the UPOV, we must highlight the fact that the farmers can save the seed for the following seeding season with no need to ask for permission, that the small farmers are exempt from the payment of royalties and that the farmers can continue keeping established varieties for seven years.

### **European regulations on biological patents (98/44/CE)**



Article 2 of the European regulations on biological patents defines two basic concepts: On the one hand, the concept of "biological matter" describes that matter which is isolated from its natural environment or produced through a technical procedure even when it previously exists in natural state. On the other hand, the concepts of "microbiological procedure" and "essentially biological procedure" are defined.

As regards the transgenics, the article 4.2 of the Directive states that "those inventions with animal or vegetable objects shall be patentable if the technical viability is not limited to certain vegetable variety or animal type". This means that the patents with high scope on the variety or type are accepted and this implies the intellectual protection of innovations on transgenic plants and animals which due to the type of technology can be performed on different varieties and breeds.

As regards human beings, article 5 deals with the human material patents. In article 5.1 it is stated that neither the body as such nor its different parts in their natural state are patentable. Article 5.2 states the possibility to patent an element isolated from the human body obtained through a technical procedure, including the total or partial sequence of a gene even when the structure of that element is identical to that of a natural element.

According to article 5.3, the granting of the patent shall depend on the fact that the isolated element has or has not an explicit application in the request since it is not possible to patent sequences with an unknown function which do not solve a technical problem. Based on this, it is possible to grant patents for genes with known functions that can be used in the design of drugs or for sequences with unknown function that can be used in diagnosis or other industrial purposes. In article 26 it is stated that it is mandatory to obtain the approval from the person out of whom the material or biological structure is isolated.

### **The patenting process in numbers**

The empirical evidence shows, first, an explosion of the patenting process. The applications requesting patents experienced an enormous increase worldwide since it went from 2.3 millions in 1994 to more than 8 millions in

2001 and to more than 12 millions in 2004. In the United States, the total number of patents obtained between 1980 and 2000 was more than the double and between 2000 and 2004 increased by 60%.

The countries that grant more patents are, in the following order, the United States (especially individuals, companies and government as national agencies although during the last years the highest growing belongs to the foreign ones), Japan, Germany, United Kingdom, France and Canada. We must mention that there is also a high concentration of patenting in a few countries like Japan (452.737 patents) which is four times the ones in the United Kingdom (101.330 patents) and is twenty times those in Taiwan (24.646 patents). In Latin America and the Caribbean countries, Mexico is first with the position number 24 (1.907 patents). Then follows Brazil (position 28 with 1263 patents), Argentina (position 32 with 904 patents) and Venezuela (position 36 with 557 patents).

As regards the ranking of companies with the highest number of patents, IBM is first, followed by Canon, Hewlett-Packard and Matsushita. If we concentrate on the most dynamic branches of patenting in the United States, first we find the biology and the molecular microbiology, followed by the drugs and compounds, electronics and optical systems. Inside the biotechnology, the highest number of patents belongs to the transgenics and the processes associated to them, genes and sequences of genes.

The main companies that patent in the area of the biotechnology are, in this order, Dow Chemical, Basf, Ciba Geigy and Monsanto, followed by the United States government, universities, foundations and researchers. More precisely, inside the agricultural Technologies, the order according to the number of patents is as follows: the universities (56.0%), Aventis (15.7%), Singenta (13.8%), Grupo Monsanto (5.9%) and Grupo Dupont Pioneer (0.2%). Finally, As regards genes and genes sequences, the highest number of patents belongs to the United States Government in first place, followed by the University of California, Smith Kline Beecham and Incyte Pharmaceuticals Inc.

## **The intellectual property and the protection of biotechnology in the WTO framework**

The GATT, antecedent of the WTO, comes into effect in 1948, appearing in this way the International Commerce Organization (ICO). The WTO appears after the Uruguay Round of the GATT (1986-1993) and due to substantial commercial and political changes that took place in the world until it was created, has many differences with the ICO. For example, the constitution treaty of the WTO regulated matters which did not appear in the ICO, like agriculture, service and intellectual property.

The WTO regulates the intellectual property rights through the Agreement on the TRIPS, which constitute the minimum protection on intellectual property and the countries which are members of the WTO must adapt their legislations to their respective national legislations. Although the deadlines for this adjustment vary according to the level of development of the country, the double principle of the most favored nation and national treatment was applied for all the members one year after the WTO became effective. Also, since 1995 a special system of protection has been imposed on pharmaceutical and chemical products for agriculture.

### **The protection of biotechnology in the WTO**

The protection of the intellectual property rights in the WTO was achieved thanks to the position of the representatives of the developed countries in the Uruguay Round. Apart from incorporating the traditional property rights (trademarks, patents and copyrights) they were able to introduce new elements like the biotechnology.

### **The patents: granting on live matter, plants and computer programmes**

There are differences in opinion as regards the protection through patents between developed and developing countries. While the developed countries try to reform the protection, the developing ones are afraid that the future technological process of the nation is limited. In the agreement on the TRIPS, the prevailing position was that of the developed countries, prolonging to 20 years the protection period granted by the patents and investing the cause of the test in the case of patents on procedures. But

this reinforcement was attenuated by some dispositions which limited the final TRIPS agreement. The article 27.1 of the Agreement established as patentable the inventions of all the fields of technology, products or processes, enlarging the patentability to new live matter.

As regards the granting of patents on live matter, plants and computer programmes, first, regarding live matter, the developments in genetic engineering coincided in time with the Uruguay Round of the WTO and therefore became an unavoidable matter during the Round when including the intellectual property in that forum. Therefore, following the criteria of the European Agreement on Patents, it was agreed to grant patents on the micro-organisms and non-biological and microbiological processes.

As regards plants, the members can decide if they want to exclude them from the protection through patents and they are also free to decide the kind of protection that must be given to the vegetable obtentions, be it patents, sui generis systems or a combination of both. Although the TRIPS Agreement is not binding to confirm the International Union for the Protection of Vegetable Obtentions of 1978, several Latin American governments has joined it.

Finally, as regards the computer programmes, they were not considered as patentable before the TRIPS agreement but due to the growing importance of this industry in the developed countries, more and more patents are granted on the technical aspects related to software. Therefore, the agreement protects them through the copyrights although in the developed countries the patent modality would be preferred. The resistance of the developing countries against the enlargement as regards patents was partly attenuated by concessions referred to grace periods and derogations.

### **Possible exclusions**

When defining the patentable matter, the article 27 of the TRIPS Agreement establishes a series of exclusions except which everything is patentable. In general, everything which traditionally has not been protected can be excluded, like the diagnosis methods and the therapeutic and surgical methods to treat persons and animals apart from the inventions whose

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commercial exploitation affects the public order and the moral, the health or the life of persons or animals. The procedures potentially harmful to the flora or to the environment are also excluded.

Also, as we have already mentioned, it is possible to exclude the plants, animals and procedures essentially biological, allowing the country members to decide. The protection of the new vegetable varieties is left in the hands of a specific system, different from the patents system. However, the specific system is not applicable for the new animal species. Therefore, up to the present moment the only mechanism to protect them are the patents as a consequence of the non-restrictive interpretation of that prohibition.

#### **a. Patentability requirements**

The TRIPS Agreement establishes the granting of patents for the novelty, the invention and the industrial application, but does not specify some minimum levels of novelty or invention. In this sense, the member Status must choose the standards they want to apply. As regards the inventions, there could be difficult requirements to restrict the patentability or easier requirements to encourage the local developments.

#### **b. Limitations on the patent rights**

The TRIPS Agreement in articles 30 ("exceptions to the granted rights") and 31 ("other uses without authorization of the holder of the rights", which includes the mandatory licenses and the enhancements on protected inventions) establishes a series of regulations which limit the exclusivity right granted by the patents. As regards the obligatory licenses, these are the minimum restrictive conditions:

- When the holder of a patent refuses to authorize an agent to use the protected property, in a prudential period of time, under reasonable circumstances, the State can make public use of that property for non profit purposes in case of national emergency or extreme urgency.
- The authorization given through this mechanism is not exclusive.

- The usage granted in this way cannot be transferred unless it is transferred together with the company or intangible to which it is applied.
- This usage is onerous; the holder shall always be entitled to be paid.
- The main purpose of the usages with no authorization from the holder is to supply the internal market of the country member in which this usage is established.

Besides, the Agreement limits most of the regulation of the Paris Agreement which allows the granting of mandatory licenses in case of abuse in the practice of law, like for example the non exploitation of the protected matter. According to the Agreement, the patent right can be enjoyed no matter the origin of the products (them may come from abroad or they may be produced in the country). Therefore, it is not possible to impose a mandatory license for the non exploitation in the country where the right has been granted unless the conditions established in article 31 are met and the country where the mandatory use is to be authorized has problems of internal supply of certain essential products, like medicines and others.

### **c. Enhancements and dependent patents**

The article 31 also establishes a series of regulations to solve the problem of granting a second license infringing the exploitation of a patent previously granted. This regulation could be applied to the enhancements introduced in an innovation already protected by patents. The minimum conditions to grant another license are:

- The enhancement must generate an economically important technical advance.
- The holder of the first patent shall be entitled to obtain a cross-license under reasonable conditions.
- It is not possible to grant the authorized use of the first one without the granting of the second one.

When posing a great obstacle for the local development of technology through the import of technology, the observation of this regulation could

impede the transference, promotion and development of technology in countries without the technological capacity or the means needed to carry out I+D since it imposes conditions which are very difficult to meet by the technologies of inferior levels of the non developed countries. Occasionally, this demand could make impossible or ineffective the exploitation of a second patent referred to an enhancement or to a local technological development of inferior level. One way to attenuate this demand would be to interpret it in a restrictive way, following the objectives established in article 7 of the TRIPS Agreement.

#### **d. Limited exceptions to the rights**

On account of article 30 of the Agreement, the member States can establish a series of limited exceptions to the exclusive rights granted by a patent as long as the following requirements are met:

- The exceptions must not threaten in an unjustified way the exploitation of the patent.
- The legitimate interests of the holder must not be threatened.
- The legitimate interest of third parties must be taken into account.

The WTO case law deals with the scope and sense of this last regulation. The European Commission filed a claim against Canada's government requesting a revision of the national legislation of this country as regards patents. To defend their interest and to be able to apply the limited exceptions, the Canadian authorities invoked the articles 7 and 8 of the TRIPS Agreement on the protection of intellectual property. On that basis, they maintained that the governments should have the necessary flexibility to adjust the patent rights in order to achieve a balance between such demands and the top priority national policies. The special group formed in the WTO to settle this conflict finally declared that the existence of article 30 implied the acknowledgement of the fact that the definition of article 28 about the patent rights needed an adjustment and added that, in spite of this, no renegotiation of the basic balance achieved in the Agreement applied. As regards the compatibility of Canadian legislation with article 30, the special group declared that the conditions established in this article

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were accumulative and that for the exception to be authorized all them had to be present.

#### **4.1.3. Retroactivity of the Agreement as regards the protection of pharmaceutical and chemical products for agriculture**

In article 65.4 of the TRIPS Agreement it is established that, when a developing country is required to protect with the help of patents for products certain technological sectors which did not enjoy this benefit when the agreement was applied, that State shall be granted, apart from the 5 grace years already granted for other concepts, 5 additional years to adjust the national legislation. However, according to articles 70.8 and 70.9, when pharmaceutical and chemical products for agriculture are protected, the grace period is only apparent and besides, the regulations acquire a retroactive character. In fact, the member States could submit requests for patents from the date the Agreement became effective (January 1st 1995). On the other hand, the States are required to grant exclusive trading rights for five years which will start as of the date in which the trading was authorized, under a series of conditions, of a product for which a patent request was submitted no matter it is approved or not.

The holders of patents enjoy a maximum level of protection since they have been guaranteed the possibility to preserve the novelty until 2005 if the respective request was submitted and the member States are required to grant exclusive trading rights under certain conditions even if by 2005 the invention is not considered as applicable to be protected by a patent. Therefore, by establishing the exclusive trading rights, a period of exclusiveness has been obtained, with no need to obtain a patent and consequently, with no need to comply with the patentability criteria required in the country where the exclusive rights are granted.

#### **a. Protection of undisclosed information**

The TRIPS Agreement also deals with the unfair competence, determined in article 10 bis of the Paris Agreement as the basis for the protection of the undisclosed information. Although the article does not define the concept



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“undisclosed information”, it does establish a series of requirements for its protections, which are:

- The information must be secret, that is, difficult to access.
- It must have commercial value due to its confidential character.
- All the reasonable measures must have been taken to safeguard it.

Any kind of restriction as regards the nature of the matter to be protected is established. Therefore, any information that meets the mentioned requirements shall be protected. As long as the information is not disclosed, the protection shall have an indefinite duration in favour of its holder.

The entry into force of these regulations could be very important for the developing countries if they were applied to the traditional knowledge or to the goods they have, whose benefits are obtained almost exclusively by big transnational companies dedicated to exploit them. Among the mentioned knowledge and goods, which are usually based on the genetic resources of these countries, we find the natural medicine, the medicinal plants and the medicine of indigenous communities. In any case, it is difficult to place them within the framework of the modalities of intellectual properties in effect, like the patents and the copyrights, not only because they do not meet the requirements but also because the lack of resources to access this system. Therefore, the regulations we have mentioned could be, due to their flexibility, a valuable instrument to protect and preserve the traditional knowledge.

#### **b. Geographical indications**

The geographical indications were included in the GATT thanks to the initiative of several European States, where the geographical origin of a series of agricultural products was very important. The Paris Agreement already regulated the protection of the origin indications or origin denominations, establishing penalties for false indications about the origin of the product. In spite of the economic potential, the mechanism has been applied in a very isolated way in Latin America and the Caribbean countries.

According to the definition provided by article 22.1 of the TRIPS Agreement, the origin denominations identify a product as original from a specific territory or from a region or locality of that territory when the quality, reputation or other characteristic can be attributed to its

geographical origin. Although we usually distinguish between the origin denominations and origin indications, the Agreement prefers a wide concept, without making reference to the different modalities which are present both at a broad level and in the different national legislations. Also, the Agreement establishes measures which guarantee the conservation of the geographical indication, but limits its usage as mark only to the cases in which it avoids the fact that the abuse of the geographical indication introduces a mistake on the true origin of the product.

The geographical indications can be especially important for the developing countries, particularly for those in Latin America and the Caribbean, since in many of them there is a vast variety of natural or craftsmanship products that could be revaluated using this mechanism. In effect, the geographical indication is usually related to the small scale production of articles with especial characteristics, basically attributable to their place of origin. Besides, its application helps to preserve the biodiversity, as opposed to the transgenic agricultural varieties, which tend to promote the single crop farming.

### **c. Trade/Service Marks**

The concern about the marks and copyrights was one of the main reasons to include the concept of intellectual property in the GATT. This inclusion was mainly promoted by the claims of the representatives of the industrialized nations about the trading of forged products and the lack of protection of the mark.

The marks are the distinctive and more visible signs of goods and services. The products of biotechnological origin also use them since they help to show the origin and the supposed virtues of their products and services. The TRIPS agreement enlarges to a great extent the signs that could constitute a mark, with the main purpose of differentiating the object. Besides, it is established that if certain signs are not distinctive by themselves, they can be registered as mark anyway, if the usage has given that virtue. It will be necessary to impose limitations on this regulation so that the exclusive rights on the generic names do not hinder their use by other agents.

Moreover, the member States cannot impose mandatory licenses regarding the marks. The article 6 bis of the Paris Agreement (version 1967) is also applicable since it establishes the protection of the “notorious mark”. Although the TRIPS Agreement does not require the use of a registered trademark, it imposes certain minimal regulations in case some day that requirement is mandatory. For example, it establishes a period of three years for the prohibition to use an already registered trademark. After this period, it is possible to request the annulment of that trademark due to the lack of use, although it also provides for the fact that the owner can present reasons to justify that lack of use, avoiding the annulment. This regulation is similar to the one contained in the Paris Agreement, except in that this last one did not establish a fixed period of time but a fair period for the annulment which would be effective only if the owner does not inform the causes of the lack of use.

The importance of marks and their advantages for competitiveness has come to a point that nowadays the trading of a product without mark is not conceived. This is reflected in the chapter of the Agreement which deals with the observance of the intellectual property rights, where criminal penalties are imposed for the cases of criminal forgery of marks or piracy of copyrights as well as the obligation of the member States to take measures to impose the respect for these rights.

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