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From the Conservation of Genetic Diversity to the Promotion of Quality Foodstuff: Can the French Model of 'Appellation d'Origine Contrôlée' be Exported?

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ABSTRACT

Building on ongoing research, this paper aims at suggesting alternative ways to conventional IPR systems to promote local varieties and related knowledge in developing countries. Many attempts to protect genetic diversity and local knowledge through IPR are in jeopardy because of misunderstanding on the terms of the debate and misrepresentation of the claims and interests of the various stakeholders.

The paper then suggests that to improve rural livelihood conditions and promote genetic diversity conservation, it would be more efficient and satisfactory for the parties involved to build on local perceptions of foodstuff production and associated knowledge. It is easier and more feasible to stress the importance of a given know-how in the processing of products from genetically diversified or highly specific resources, than to isolate indigenous or local contributions in the conservation of genetic resources. This simplifies the remuneration issue and reinforces the legitimacy of local claims.

Finally the paper discusses the feasibility, expected advantages and drawbacks of an adaptation of the French system of *Appellation d'Origine Contrôlée* (AOC) — a type of geographical indication of origin — for developing countries.

Keywords: Genetic resources; conservation; IPR; Appellation of origin; farmers' rights

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Valérie Boisvert¹

1. INTRODUCTION

Although there is discussion about the appropriateness of developing formal farmers' rights over genetic resources, most of the debate about conservation of crop diversity tends to focus on technical issues as the definition of *sui generis* rights for farmers. The bulk of the discussion is reduced to two alternatives: either joining UPOV (the International Union for the Protection of New Varieties of Plants) or establishing innovative rights. Beyond theoretical or ideological objections to this orientation, from a political as well as from a merely technical point of view, the practical definition of the basic categories required to implement an IPR system proves particularly challenging.

Building on ongoing research,² this paper aims at suggesting alternative ways to conventional IPR systems to promote local varieties and related knowledge in developing countries. To improve rural livelihood conditions and promote genetic diversity conservation, it would be more efficient and satisfactory for the parties involved to build on local perceptions of foodstuff production and associated know-how.³ It is indeed easier to stress the importance of a given expertise in the cultivation, harvest, or processing of products from genetically diversified or highly specific resources than to isolate indigenous or local contributions in the conservation of genetic resources. In focusing on *products*, rather than on

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² Project on "The Markets for Biological Resources" funded by the French Institute for Biodiversity (IFB).

 $^{^{3}}$ Other products, such as handicrafts, could be considered as well. But the institutional tool we want to assess here — i.e. Appellations of origin — has been more widely applied to protect foodstuffs, wines and spirits.

resources, the analysis cannot but account for the social, technical and cultural dimensions of production that might remain hidden otherwise. Moreover, this approach simplifies the remuneration issue and this reinforces the legitimacy of local claims.

In France, there has been a long tradition of promoting localized foodstuff production through labeling. Geographical indications have recently emerged in Europe as a favorite incentive to diversification in rural development policies. They help to maintain agricultural profitability — hence activity — in marginal areas. They are sometimes presented as a possible means to sustain traditional farming and processing practices and to protect landraces. Could this instrument be used in other contexts? Could it be adapted to protect biodiversity and related knowledge? Since there is growing interest in geographical indications in developing countries and several international arenas, the feasibility, expected advantages and drawbacks of an adaptation of the French system of *Appellation d'Origine Contrôlée* (AOC) in such contexts will be assessed in this paper.

2. FARMERS' RIGHTS AND THE CONSERVATION OF AGRODIVERSITY: INTERNATIONAL DEBATES AND POLICY ISSUES

The academic and political debate on *in situ* conservation of crop genetic resources and *sui generis* protection of farmers' rights to ensure conservation and poverty alleviation reflects a compromise among various interests and parties. The effort spent on the development of formal farmers' rights in place of informal institutions attests a search for more equity, but also for efficiency in the management and protection of agrodiversity. However, these objectives prove difficult to reconcile in practice. Moreover, this policy option rests on several questionable hypotheses, which we will present below.

Marginal and small farmers in the centers of origins have selected seeds and developed new varieties for centuries. The present diversity of the gene pool for the most important food crops is a result of this process. This contribution has long been overlooked and should therefore be at least acknowledged and possibly receive compensation from industrial plant breeders, who have benefited from free access to genetic diversity and protection of their innovations and improved varieties derived from the common gene pool. Agreements between farmers or their representatives and the seed industry would ensure economic returns to the farmers who sustain genetic diversity through their agricultural practices. According to the advocates of such a solution, this would both be fair and effective, as it would compensate farmers for past and present contribution to agrodiversity. Moreover, it would provide incentives to local farmers to maintain their traditional practices and cultures.

This policy derives from a liberal viewpoint according to which well-defined (i.e. exclusive and transferable) and enforced rights of the stakeholders (plant breeders, local farmers and others) can form the basis for contracts or mutually beneficial agreements. These would ensure conservation through an appropriate system of incentives.⁴ The Convention on Biological Diversity (CBD) rests on the same belief. It promotes the definition of property rights both over genetic resources and over the products of biotechnology to enable market institution and fair benefit sharing among participants (Boisvert & Caron 2002). The patent system, if widely spread, is considered a good means to protect innovation in the field of biotechnology. According to this position, what is needed is to define rights for the holders of genetic resources and related traditional knowledge in the centers of crop diversity or in

⁴ This is the very definition of the Coase theorem, which is the cornerstone of property rights economics (see Sedjo 1992).

hotspots (Art. 8j). Once the rights of local communities or indigenous peoples are well defined, they should be able to enter profitable contracts with researchers for the supply of biological material. Thus, the development of a market for genetic resources is considered sufficient to provide efficient incentives for biodiversity conservation. However, the problem can be investigated from a different standpoint. The growing commoditization of traditional resources and the integration into the global trade of marginal farmers can also be considered as the cause of — and not the solution to — genetic erosion in agriculture. World market integration can have detrimental effects on the local social systems and seriously undermines the practices that have allowed the maintenance and development of genetic diversity over the centuries. The actual power of farmers, their autonomy, and their ability to withstand monopolies and to resist policies oriented towards cash crop production should be considered when investigating the driving force behind conservation. From this point of view, the timeliness and efficiency of an institutionalization of farmers' rights are questionable. They would divert attention from more fundamental problems, on which debate is ongoing and unresolved.

Beyond ideological objections to the development of formal property rights for farmers, their definition meets practical obstacles. First of all, common understanding of the issues at stake is still limited. They are often based on a misrepresentation of the claims and interests of the various stakeholders (local people, national policy-makers, international conservationists, industries, researchers...). Thus, local claims for rights over genetic resources or recognition of traditional, indigenous, or local knowledge might in fact cover much broader concerns, such as lack of economic and political power or civil rights, insecurity of land tenure, or poor access to staple commodities. Also, national policies

promoting the conservation of crop and livestock genetic diversity often pertain to concerns over poverty alleviation or food security rather than over diversity itself. At the other end of the spectrum some donor agencies and research institutions consider *in situ* conservation of crop and livestock genetic diversity as an end in itself, rather than a means.

Second, the practical definition of the basic categories required to implement an IPR system represents a challenge. For instance, traditional ecological knowledge is not selfcontained and fixed, but part of - or a product of - dynamic knowledge systems under constant re-assessment, improvement, evolution, through borrowing and learning processes. These processes involve various groups, including indigenous people or local farmers but also migrants, development agents, NGOs and others. Similarly, the resources involved have several sources: landraces — either actually endemic or introduced varieties that have become part of the local heritage — as well as imported varieties. In most cases, it would be both difficult and purposeless to isolate the traditional or indigenous components of the system or those relating especially to access, use and management of genetic diversity. Genetic diversity as such, can be meaningless for local people, who have more integrated views of their production systems. The definition of the 'community' that should be endowed with the rights is also a problem. There might be no such thing as institutional arrangements concerning access and use of genetic resources. The level of coordination and organization among people might be low and contestation over rights to resources within or among local institutions might prevent identification of a specific management unit.

Moreover, subconscious primitivism often pervades the discourses promoting farmers' rights. The devolution of rights to local communities stands for a proxy of biodiversity conservation. This assumes that local people embody some kind of intrinsic

ecological virtue, and are so much embedded in their natural environment that they could not possibly harm it. Though generous, the reinforcement of local rights over resources might in some contexts be detrimental for genetic diversity. Local farmers might behave in a very different way and adopt new farming practices once endowed with more political and economic power.

The implementation of adequate property rights over community resources for local or indigenous people proves a political and legal challenge in most cases and implies costly reforms, while the potential benefits remain uncertain. Most countries are members of the World Trade Organization (WTO) and as such they have to comply with the agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which commits them to recognize intellectual property rights and to pass national laws dedicated to their protection. The local cultivars resulting from thousand-year-old selection processes cannot be considered as innovations and cannot be protected through patents. A concern for fairness should however impose the protection of farmers' rights to these varieties to prevent their appropriation by industrial plant breeders. Developing countries are therefore allowed to define sui generis rights, intended to fit the particular features of the local economic and trade realities (Article 27/3). The UPOV campaigned in developing countries for ratification of the 1991 'International Convention for the Protection of New Varieties of Plants', and so adopt plant breeders' rights as *sui generis* rights although they are not really adapted to the protection of local varieties. Consequently, in many countries, the definition of farmers' rights seems to amount to join the UPOV, which is well short of the actual possibilities offered by the TRIPS Agreement, that allows, at least in principle, to set up really new systems. However, the countries that set out to accept the challenge of legal innovation have

often had to face opposition: most attempts have been accused of protectionism or alleged infringement of patent law. This may have discouraged many developing countries to steer such a course. This context has favored the promotion of geographical indications, which is another legal option accepted in the TRIPS Agreement, as a means to protect traditional knowledge and practices associated with local varieties and plant selection (see Posey & Dutfield 1996; Downes 1997; Downes & Laird 1999, Dutfield 1997; 2000). In contrast to other IPR, geographical indications are collective rights protecting reputation rather than innovation. They can be adapted, however, to protect intellectual property in agricultural economies and they could be used to protect products derived from endemic varieties or landraces and embodying specific knowledge. They are linked to the place in which the protected products originate. Their implementation does not imply to assign special rights to ethnic entities or local communities whose legal status would be difficult to define. Thus, they make it possible to throw new light on the definition of farmers' rights. Another advantage, compared to *sui generis* rights, is that these rights are already developed and protected worldwide.

The socio-economics of geographical indications has long been a field of analysis in Europe, especially in France, and their possible impacts, advantages and drawbacks are well documented. This experience can be useful for developing countries interested in geographical indications. We will present and discuss the French system of appellations of origin, which is the oldest one, below.

3. 'APPELLATIONS D'ORIGINE CONTRÔLÉE" AND GEOGRAPHICAL INDICATIONS: DEFINITIONS AND WORKING RULES

The Appellations d'Origine Contrôlée (AOC) are a sort of geographical indication and as such they are intellectual property rights. It should be stressed that there is no single definition, accepted worldwide, of geographical indication (Tinlot & Juban 1998; WIPO 2002). It is a generic term that has been adopted in international arenas to encompass and replace several more specific designations. In fact it covers different realities according to country, culture, and tradition (WIPO 2003a; 2003b; 2003c). There are two main concepts linked to the idea of geographical indications (Escudero 2001). These are 'indications of source' and 'appellation of origin'. Appellations of origin imply a quality linkage between the product and its geographical origin, whereas indications of source indicate only a geographical origin. The denomination of an appellation of origin must correspond to a geographical name that serves to designate the product, whereas geographical indications can also cover symbols (e.g. flags). Although they are mostly used to protect agricultural products, geographical indications can also highlight the specific characteristics of crafts or industrial products in relation to local renowned and highly skilled working traditions, as illustrated in expressions such as 'Swiss made' (WIPO 2001).

The French *Appellations d'Origine Contrôlée* are voluntary contractual instruments designed to single out products that draw their authenticity and their specificity from the area in which they originate. They describe the products — mostly foodstuffs, wines and spirits — cultivated or harvested, processed and prepared within a given geographical area. Through AOC, the specificity of a product is recognized, and the product name protected from misuse and imitation. The protected area is defined in French as a *terroir*, a notion that encompasses

geographical features, e.g. soil or climate conditions, but has also a cultural dimension: it implies shared traditions of production, a common history, a collective identity and often heirloom varieties or landraces. This notion calls to mind the ideas of entrenchment and heritage. The products protected by AOC are part of the living heritage of a country and are associated with valued know-how and high quality (Bérard & Marchenay 1996; 2000; 2004).

Gaining approval for an AOC is a long and costly process that requires organizational skills and networking abilities of producers. They must first organize themselves into unions or associations, given that application for registration of geographical indications is in practice limited to groups or collective entities (INAO 2002). These are in charge of preparing the application file and once the AOC is accepted they have to uphold the rules of production at the local level (Barham 2003). The information producers have to supply includes:

- A justification of the request for an AOC, explaining the reason for protecting the products (protection against unfair competition, official acknowledgement of a quality policy, or others);
- Evidence of the reputation of the product with consumers and of its historical foothold in the region (tied to the local environment and local knowledge or techniques);
- A description of the *terroir*, of the specific cultivation, production and processing techniques, and of the resulting product, underscoring their originality and uniqueness, their differences with less typical areas of production, and more generic processes and products;
- Prospective studies based on thorough analysis of the existing market conditions and distribution channels, forecasting the possible development allowed by labelling.

The application file undergoes successive reviews by several departments and committees at different levels.

The request is first submitted to the Institut National des Appellations d'Origine (INAO), which is the public institution in charge of the protection of geographical indications⁵. The request is then forwarded to a regional committee composed of representatives of the different stakeholders involved in the production and distribution sectors. After a review the dossier is transmitted to a National Committee that includes experts in international trade and consumer representatives. A special steering committee is then appointed to assess the request and express an opinion on its acceptability. If the request is accepted, a committee of experts is formed to delineate the AOC area. This delimitation is a very delicate process, requiring interdisciplinary work to account for the different borders of the *terroir* — environmental, historical, cultural, or technical. The process has to be participatory, and requires negotiations, that rally people's interest far beyond the specific production sphere. In maintaining the competitiveness of traditional products that would probably have disappeared otherwise, the development of AOC creates rural employment in agriculture, but also in tourism and handicraft — and can mitigate migration from rural to urban areas. It can also favour the maintenance of traditional landscapes — e.g. terraces. From a symbolic point of view, the feeling of belonging to a place and a community is also strongly asserted and reinforced through the delineation process, inducing changes in the way local people think of themselves and how they envision their natural and cultural environment. Practices that were considered as retrograde are re-assessed and presented in a

⁵ The INAO is a public administrative body under the supervision of the French Ministry of Agriculture and Fisheries. The Institute has an operating budget of EUR 19 million which comes essentially from the Ministry, although some beneficiaries (producers and processors) also pay fees. The INAO staff (about 250 in 26 offices located in the AOC areas and a central bureau in Paris) assist the producers throughout the application procedure and is in charge of the international protection of AOC products (EUR 750,000 in 2002).

more flattering light, giving rise to local pride (Bérard & Marchenay 1998). As Elizabeth Barham (2003) points out, *terroir* is a social construct:

"The taste for "*produits de terroir*" reflects in part the ongoing construction of a collective representation of the past through food that is perhaps largely unconscious for consumers. At the same time, *terroir* also reflects a conscious and active social construction of the present by various groups concerned with rural areas in France (...), who jostle for position in their efforts to recover and revalorize elements of the rural past to be used in asserting a new vision of the rural future."

The AOC area is therefore defined after a thorough scientific analysis and intense negotiations. The research and negotiation processes result in bylaws, establishing the conditions and requirements for the producers within the protected area to be allowed to use the name of the AOC in their product labelling. The AOC is finally awarded once the Minister of Agriculture has signed the text into law and has sent it on for publication in the Official Journal. The whole process is very bureaucratic and usually takes several years. It is, however, heavily subsidized, since AOC have long been a mainstay of regional development policies⁶.

⁶ AOC producers can benefit from several kinds and sources of assistance and subsidies that they often draw concurrently: a special budget is devoted to the promotion of products and quality at the national level (EUR 104.1 million in 2003), and sometimes at the regional level. In addition, the Common Agriculture Policy of the European Union provides for various subsidies under Community rural development programmes. Member States have implemented measures to promote rural development, agro-environment, less favoured areas and areas with environmental restrictions, investments in farms, marketing of quality agricultural products. The financial support for rural development in France in 2003 represented a total public cost of EUR 13,813.06 million (including the EU contribution). (See http://www.agriculture.gouv.fr and DG Agriculture's website: http://europa.eu.int/comm/agriculture/rur/index_en.htm)

The AOC was instituted in France at the beginning of the twentieth century, and was modified by the Law of July 2nd 1990. Nowadays it is recognized and established at the European level, through the Council Regulation (EC) No 2081/92 of July 14th, 1992 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs, which introduced the notions of Protected Designations of Origin (PDO) more or less equivalent to the French AOC — and Protected Geographical Indication (PGI). This regulation establishes a registration system that specifically excludes wines and spirits - that represent the bulk of the products protected in France. The application is transmitted by the relevant national authority of the Member State — in France, the INAO — to the European Commission. The application undergoes a number of control procedures. If it meets the requirements there is a first publication of the name of the geographical indication in the Official Journal of the European Communities. Within six months from publication, the registration can be opposed by any Member State. Names that have become generic in the country in which they originate or in the broader areas of consumption cannot be registered. If there are no objections, the European Commission publishes the protected product name in the Official Journal of the European Communities (European Commission 2004).

It must be stressed that in France as well as in Europe the protection of geographical indications is under the authority of the institutions in charge of agriculture. They are above all perceived as an instrument to promote diversification and quality in agriculture, and to support agricultural income. In 2001, French turnover of products with geographical indication amounted to EUR 18 billion, accounting for 15 % of the turnover of the food industry and 30 % of its exports. More than 21% of French farmers were involved in the

production.⁷ Products bearing AOC labels often appear as exceptions, with high growth rates in sectors and markets that are rather depressed. The protection through geographical indications usually induces notable increases in prices — hence in farm incomes — in levels of production, and in land prices in protected areas as well as drastic cuts in the costs of international protection of products for its beneficiaries. Moreover, it entails a reorganization of the supply chain and sometimes a reassessment of the bargaining positions of the producers, processors and distributors in favor of the former. However, the distribution of returns is likely to remain uneven and the protection may benefit local farm industries rather than small-scale farmers. Furthermore, since the market proves profitable, there has been growing competition and an ensuing development of alternative labels generating confusion for the consumers. In France, new trademarks referring in their marketing to regional traditions have been developed by distributors and sometimes pose a challenge to the local products protected by appellations of origin (Bérard & Marchenay 2004). This also attests the success of marketing strategies based on quality and origin.

In terms of agrodiversity conservation and promotion of traditional knowledge, the empirical evidence remains mixed (Bérard & Marchenay 2004). The products bylaws do not always specify which animal breed or plant variety should be used within the protected area. Some production processes are based on the use of specific landraces while others are not. These landraces are not always local and threatened of extinction. In some cases,⁸ the groups of producers have been allowed to make on-farm selection and production of seeds for their own use because their production is based on local populations of plants that can be reproduced only by sexual means. In these cases, the appellation of origin has been the

⁷ See the websites of the <u>INAO: http://www.inao.gouv.fr</u> and of the French Ministry of Agriculture and Fisheries: http://www.agriculture.gouv.fr

⁸ For example *Lentille verte du Puy* (lentil), *piment d'Espelette* (chilli), *coco de Paimpol* (bean).

means to maintain the privilege of the farmers and to reinforce their role as plant breeders. On the other hand, fruit production is often based on new and homogenous hybrid varieties that are linked to market development and intensification because of technical constraints. In a way, it is logical for appellations of origin to entail genetic erosion, since they tend to single out some products and some resources, necessarily to the detriment of others. In the Ardèche region, only 19 varieties of chestnuts out of the more than 60 varieties developed by the local farmers were retained as eligible for the AOC (Dupré 2002).

The link between traditional knowledge or specific local know-how and appellations of origin is also ambiguous and dependent on the products. In most cases, production processes are the results of compromises between tradition and modernity, health norms and authenticity, and among local variants. The diversity of ingredients and techniques and their variability in time and space is necessarily reduced. The production process has to be described precisely in the application for registration. The obligation to put cultural practices in writing cannot but fix them and change their very nature. Implicit values and choices have to be made explicit, to be discussed and justified (see Bérard & Marchenay 1998). There is a disclosure of collective knowledge and parts of the local heritage pass into the public domain. The method outlined must be explained in such a way as to allow any producer within the region to produce the given product on the basis of the information given in the specification; it is also a guideline for controls. However, appellations of origin are often granted to re-invented or revived traditional products. For example, the *pélardon*, a cheese produced in the Cévennes area, is mostly made by newcomers who had to learn everything about cheese making and have benefited from vocational training. The techniques described

in the bylaws are different from former local practices. The authenticity of such a production can therefore be questioned.

Geographical indications as they are implemented in France appear as efficient incentives to promote rural development and to energize the food sector. They also have a consumer protection role in terms of assuring quality and guaranteeing the origins of the product. In some cases, they might favor agrodiversity conservation and traditional knowledge. But the importance of mere intellectual property concerns in granting appellations of origin is less obvious. These regulations are still disputed at the international level, e.g. they have been criticized by the United States as disguised subsidies as the following section will show.

The rest of the paper investigates two main questions that have arisen in the international discussion on conservation of genetic resources:

Given these specificities, could the application of appellations of origin be a sound policy option for developing countries? And could it be used to promote traditional knowledge and to ensure biodiversity conservation?

4. THE INTERNATIONAL PROTECTION OF GEOGRAPHICAL INDICATIONS: ONGOING DEBATES AND POSSIBLE WAYS FORWARD

The development of geographical indications has been put forward in several arenas — especially the WIPO — as a policy option that would both meet the requirements of the TRIPS Agreement of the WTO and enable to implement some form of farmers' rights (Downes 1997; Downes & Laird 1999; Dutfield 1997; 2000). Moreover, they are presented as possible tools to protect traditional knowledge relating to genetic diversity (see WIPO

2004a; 2004b).⁹ But their ability to reach these objectives remains implicit in the plea for their development and has not yet been clearly demonstrated.

The interest in the French system of appellations of origin has been translated into numerous appeals for technical assistance. In the last years, the INAO and several other French institutions have been overwhelmed with questions and requests from producer groups and administrative bodies of developing countries that want to gain protection in France and Europe for their products.¹⁰ These requests have reached such numbers that the INAO staff is not able to process them.

The expected advantages of AOC should, however, be weighted against an assessment of the actual protection offered to geographical indications at the international level, notably under the TRIPS Agreement. At the moment, the international legal protection seems to benefit mainly industrialized countries and wine producing regions.

Recently, there has been a race to develop policies for contractual arrangements for communities or small-scale farmers. These are granted advantages — subsidies, access to markets, special rights including the use of labels, various exemptions among others— if they commit to fulfill specific pledges (organic production, maintenance of biological diversity, fair trade, respect of social clauses, no child labor, or family farm production). These various forms of labels, despite having a lot in common, have diverse impacts depending on the level of institutional support they receive from the state as well as at the international level, especially when such contracts are meant to sustain alternative forms of

⁹ In their answer to a questionnaire sent by WIPO's Intergovernmental Committee on Intellectual Property and Genetic Resources Traditional Knowledge and Folklore, several countries mentioned that they used geographical indications to protect traditional knowledge: EU, France, Hungary, Indonesia, Italy, Mexico, Portugal, Republic of Korea, Republic of Moldova, the Russian Federation, Tonga, Turkey, Venezuela and Viet Nam.

¹⁰ For example the National Interprofessional Bureau of Cognac has prepared dossiers for the protection of Tunisian wines and two Vietnamese products: Shan Tuyet tea from Moc Shau and Nuoc Nam (fish soya sauce) from Phu Quoc.

global trade. Unlike other labels — e.g. fair trade — the protection through geographical indications is formally supported by the state of origin and is often part of far-reaching regional development policies — at least in Europe. Geographical indications are also a recognized form of intellectual property, protected as such under the TRIPS Agreement. Even if the complete scope of the protection is still undefined, this factor presents concrete advantages compared to private labeling initiatives.

The Paris Convention of 1883 (see Box 1) was the first international agreement to protect geographical indications, but its effects were limited because the provisions were too vague and the protection too weak, while the Madrid Agreement of 1891 and the 1958 Lisbon agreement rested on more restricted definitions and provided a higher level of protection. However, their practical influence has been meager due to limited membership. The United States, whose position on this question is of the utmost importance for the future of global trade, was not a signatory of either the Madrid or the Lisbon Agreement.

Box 1—The international protection of geographical indications prior to the TRIPS Agreement

• The Paris Convention for the Protection of Industrial Property, (Mar. 20, 1883, Last revised Jul. 14, 1967)

The Paris Convention of 1883 was the first international agreement to protect geographical indications. The number of Member States is large (164) but the protection guaranteed is fairly limited. It prevents only the import of goods containing indications that are "liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity of the goods." (Article 10 bis). The Paris Convention prevents therefore the importing of goods containing *false* — but not merely misleading or ambiguous — indications of origin.

•The Madrid Agreement for the Repression of False or Deceptive Indications of Source of Goods, (Apr. 14, 1891, supplemented by the Additional Act of Stockholm, 1967)

The Madrid Agreement prohibits *misrepresentation* of the geographical origin of the products and, most significantly from an economic viewpoint, it prohibits member countries from treating geographical indications of wines as generic terms (Article 4). This expanded scope of protection for geographical indications explains why only few countries (33) signed the Agreement. Its impact is therefore limited.

• The Lisbon Agreement for the Protection of Appellations of Origin and their International Registration Oct. 31, 1958 (last revised Sept. 28, 1979)

The Lisbon Agreement for the Protection of Appellations of Origin and Their International Registration provides for strict protection of geographical indications — more precisely of Appellations of Origin — through an international registration system (modelled after the trademark registration system devised in the Madrid Agreement). The appellation of origin must first be protected in its country of origin and then be registered in the International register of WIPO. Once registered, it is protected in other member countries (Article 1). According to Article 3, the member countries must prohibit usurpations and imitations under their respective domestic laws, even if the true origin of the product is indicated, if the appellation is used in a translated form or accompanied by terms like 'type' or 'style' (e.g. 'California style Champagne'). Because of its strict standards of protection, the Lisbon Agreement has only few signatories (20).

Source: http://www.wipo.int/treaties/en/index.html

With the TRIPS Agreement, there has been a decisive institutional breakthrough in

the protection of geographical indications. All 146 members of the WTO are *de facto*

signatories of TRIPS. They are not only bound to protect geographical indications through

substantive provisions, but also to enforce their application according to minimum standards.

Moreover, the TRIPS Agreement provides a strong dispute settlement mechanism under the

WTO system.

This result was obtained after years of controversies between the European Union and the United States (Goldberg 2001; Barham 2003). The former wanted to prevent geographical indications, especially wine and spirits, from becoming generic terms, while the latter wanted to generalize the law on trademarks. The present outcome of the negotiation is a kind of *status quo* in which the existing practices in the United States regarding trademarks and use of geographical indications are not challenged, while protection against future misappropriation is granted for geographical indications, which is a concession to the European claims (see Box 2).

Box 2—The protection of geographical indications under the TRIPS Agreement

The Article 22(1), derived from the Lisbon Agreement, defines geographical indications as "...indications which identify a good as originating in the territory of a Member or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin." The following articles deal with consumer protection from false representations and the prevention of unfair competition (Article 22(2)), the linkage between geographical indications and trademarks (Article 22(3)) and the reference to misleading geographical indications are protected even when in conflict with trademark law: "A Member shall, ex officio, if its legislation so permits or at the request of an interested party, refuse or invalidate the registration of a trademark which contains or consists of a geographical indication", if it used in such a way that "misleads(s) the public as to the true place of origin." (Article 22(3)). Such a provision is in contradiction with the common practice in the United States of using geographical names as trademarks.

Article 23 provides additional protection for the wines and spirits. According to Article 23(1), each member shall "prevent the use of a geographical indication identifying wines (or spirits) that do not originate in the place indicated by the geographical in question (...) even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expressions such as 'kind', 'type', 'style', 'imitation' or the like." The use of the geographical indications is therefore prevented even in cases when the consumer cannot possibly be misled. Such a provision, if fully applied, should prevent the reference to French names in the designation of Californian wines for example. Article 23(2) prohibits trademark registration when a trademark is primarily geographically descriptive. Homonymous geographical indications are addressed in Article 23(3) — for instance 'Rioja' is a wine-growing region in both Spain and Argentina. In such cases, protection should be accorded to each indication.

Article 23(4) provides for the establishment of a multilateral system of notification and registration of geographical indications for wines eligible for protection in those Members participating in the system.

- There are therefore three levels of protection for geographical indications in the TRIPS Agreement: for geographical indications concerning all products, for wines and spirits, and only for wines. This architecture is the central issue of the ongoing negotiations.
- Article 24 addresses the restrictions to the protection of geographical indications. A member is not required "to prevent continued and similar use of a particular geographical indication of another Member identifying wines and spirits in connection with goods or services" if that indication was used "in a continuous manner with regard to the same or related goods or services in the territory of that Member either (a) for at least 10 years preceding April 1994 or (b) in good faith preceding that date." When a trademark has been registered or even applied for before the conclusion of the TRIPS or before the geographical indication is protected in the country of origin, it remains valid (Article 24(5)).
- Article 24(6) provides that a member is not required "to apply its provisions in respect of a geographical indication of any other Member with respect to goods or services for which the relevant indication is identical with the term customary in common language as the common name for such goods or services in the territory of that Member." In other terms, if the name of the geographical indication is treated as a generic term it cannot be considered a violation.

Adapted from the TRIPS Agreement

The European Union is calling for a global registry that would protect geographical names as unique for the purpose of product labelling. The development of such a multilateral registration system for wine is provided for in Article 23(4) of TRIPS, and a further request was submitted by the European Union to extend this system to other products (Barham 2003). A group of developing and emergent countries also favours this request in the hope to increase possible gains through the TRIPS Agreement.¹¹ Offering small producers and associations the less-costly and legally-secure protection of Article 23 for all products would give them a better way to prevent the abusive use of their geographic indication in a foreign country than the difficult and burdensome proof that the public has been misled, or that there was an act of unfair competition. The replacement of national systems by a multilateral register would shift the burden of administering and enforcing geographical indication rights from right holders to governments. Therefore the extension of the protection granted to wines and spirits to other products would be a practical step towards effective protection for developing countries producers.

However, this move is opposed by a group of countries, led by the United States.¹² These countries maintain that the current additional protection granted only to certain types of products in the TRIPS Agreement reflects the balance reached in the multilateral trade negotiations, and that balance cannot be altered at this stage. They oppose the idea of extending the additional protection to all kinds of products. Among countries supporting this

¹¹ A group of members— including Bulgaria, The Czech Republic, Cuba, Dominican Republic, Egypt, Estonia, European Union, Honduras, Iceland, India, Indonesia, Kenya, Latvia, Liechtenstein, Mauritius, Nicaragua, Pakistan, Poland, Sri Lanka, Slovenia, Switzerland, Turkey— expressed concern to the TRIPS Council on that subject. In general, these countries argue that Article 24 mandates negotiation to extend the product coverage that exists in TRIPS (see WTO 2001a; 2001b; 2001c; 2001d; 2002a).

¹² Other countries, including Argentina, Australia, Canada, Chile, China, Hong Kong, Japan, Korea, New Zealand, Mexico also express concerns about the European Union proposal (WTO 2002b).

view are the emerging wine producers. In addition the United States prefers the use of trademarks to protect intellectual property associated with a business name.

This dispute stems from different cultures or traditions in terms of intellectual property and more basically from different conceptions of the significance of the attachment to land, of the importance of individual initiative and innovation, and of the role of the State.

Many corporations in the United States used pre-existing names for their products. Immigrant business owners of European countries were familiar with geographical names from their home countries that were associated with quality and used them to promote their products. These names have been treated as generic names for certain types of products; today they may have no geographical significance at all for many Americans.¹³ The establishment of a global registry of names, allowing their use only on products coming from a single geographical region would prevent such attempts in the future.

Trademarks also pertain to a more liberal view of intellectual property. Whereas appellations of origin are attached to a specific area and are inalienable, trademarks belong to individuals or corporations and can be bought or sold as business assets. Unlike the producers of trademarked items, the producers within territories covered by appellations of origin cannot move their production out of the region and retain the name. Moreover, if trademarks are infringed upon, the individual or corporations have to defend their rights to the name. Therefore the effective protection depends on the owner's willingness and ability to defend his/her right in court. In contrast, appellations of origin are administered by States who intervene in cases of usurpation of the name — an important consideration for small-

¹³ The most famous and debated example is that of Budweiser Beer, made in the United States by Anheuser-Busch. The name of the trademark also refers to a geographical location. Budweiser Budvar, which is a brewery in the Czech Republic, within an area protected by an appellation of origin, lays claim to the title of original Budweiser beer producer (Kunstadt & Buhler 1998).

scale farmers, who may not be able to afford costly legal battles, particularly at the international level.

The position adopted in TRIPS is to maintain as much as possible the *status quo*. There is no retroactive protection of geographical indications already widely used as generic or brand names. Similarly, there is no international obligation to protect geographical indications which are not protected in their countries of origin or which have fallen into disuse in that country. Protection abroad is dependent on continued domestic protection (Escudero 2001). Therefore the applicability and scope of the TRIPS Agreement depends on national legislations and their effectiveness.

Any variation of this framework will change the current balance and likely require concessions, as countries opposing the extension of the additional protection for wine and spirits to other products will not agree to changes without compensation on other trade issues. As a consequence, the talks are at a standstill at the moment (see WTO 2005).

Geographical indications can also be protected through multilateral or bilateral agreements.¹⁴ For example, recent agreements ensure mutual recognition of protected designations of origin between the European Union and Australia for wine, and between the European Union and Mexico for wine and spirits. A free trade agreement between the European Union and South Africa was signed in 1999. The African Intellectual Property Organization — created in 1977 — also protects appellations of origin, as does, in the countries of the Andean Community, Decision 486 on the new Common Provisions on Industrial Property, in effect since December 1st 2000. Bilateral agreements are likely to

¹⁴ The bilateral and multilateral agreements including provisions concerning intellectual property have been brought to the attention of the TRIPS Council, according to Article 4(d) of the TRIPS Agreement (see WTO Note by the Secretariat "Overview of existing international notification and registration systems for geographical indications relating to products other than wine and spirits." Document IP/W/85/Add.1, 2 July 1999, pp. 4-5).

remain important even if they do not offer the same level of protection of geographical indications as the TRIPS Agreement.

The system that has been designed at the international level for the protection of geographical indications is the reflection of the economic interests of industrialized countries, especially in relation to the production and trade of wine and spirits. Unless they have adopted domestic legislation and protect some of their products, developing countries have to meet new constraints stemming from the protection of foreign intellectual property rights, while they have nothing to gain. Eight of the twenty signatories of the Lisbon Agreement — all developing or emergent countries — have not so far registered any appellation of origin (Burkina Faso, Congo, Costa Rica, Gabon, Haiti, Togo, Moldova and Serbia Montenegro). However, most developing countries have accepted within their territories the protection of a large number of geographical indications in return for the recognition of only a small number — if any — of their own in other countries.

Registrations from European countries — including emergent countries — account for 95 per cent of the Appellations of Origin registered under the Lisbon Agreement. Appellations of origin for wines and spirits account for more than 70 per cent of all enforced international registrations. France, as a single country, holds the majority of the appellations of origin registered under the Lisbon Agreement. They concern mainly wines, spirits and cheeses (Escudero 2001).

The appropriateness and opportunities of using the international legal framework to protect other products than wines and spirits in developing countries are still highly speculative. The likelihood for the system to evolve should be assessed. However, it is more realistic to explore the conditions of a potential use of the system as it is, rather than count on

its evolution, especially since such change would probably entail compensations that could reduce considerably the expected advantages.

5. THE APPLICABILITY OF GEOGRAPHICAL INDICATIONS IN DEVELOPING COUNTRIES

An actual application of geographical indications in developing countries requires going beyond the discourse on the value of traditional or indigenous knowledge and landraces. This value cannot be denied from a cultural and social point of view, but geographical indications aim at protecting the market share and reputation of commodities. The 'quality' recognized by the consumers in the market is a very subjective notion and definitely a social construct (Thiébaut 1995; Sylvander 1995). The knowledge of local farmers, although resulting from centuries of adaptation to local environments and fulfilment of local needs, might not have any market value, which does not in any way detract from its worth.

Beyond rhetoric, geographical indications have some characteristics that make them the most appropriate IPR for developing countries:

- They protect the reputation of products, resulting from traditions and collective construction and learning processes. They could therefore apply to the food and medicines developed over the years from the land by indigenous people and local farmers.
- They are unlimited in time and inalienable. They could therefore be used to protect effectively traditional knowledge from usurpation. Their international protection depends on the fact that they shall be protected in their country of origin and shall not fall into disuse in that country (Escudero 2001). They might therefore appear as a means to promote local knowledge, to ensure protection of progressively

disappearing traditional practices, and of the local environment, including genetic resources.

- They could create economic rewards, in granting premium prices for marginal or small-scale farmers who use traditional methods in the region where the product has been traditionally produced. At the same time, they could be used by communities to block outside commercialization of their cultures and the marketing of unauthorized products.
- the names of products, varieties, or areas of production that have a reputation extending beyond the national borders could also be protected from a kind of biopiracy, which consists in registering them as trademarks in industrialised countries.

Notwithstanding these possible advantages, geographical indications are still intellectual property rights. They should not be taken for a universal solution to promote farmers' rights. They protect differentiated commodities; they are neither defending cultural values nor conserving genetic diversity per se, though they might reach these outcomes in some contexts. They are granted to favor market development, not to oppose market forces. They create dependence of local farmers on global demand that could prove very transient. The comparative advantages gained on the markets of specialty products might be particularly flimsy, since these markets change according the latest tastes and thus are very volatile. Moreover, the resort to appellations of origin is limited to specific products and areas, the administrative set up and operating costs are considerable and significant associational and networking skills of participants are necessary.

Therefore, recognition of appellations of origin should not be advocated solely as a means of defence against the appropriation of the names and reputation of the national products or as a defensive form of protection of traditional knowledge or collective

innovation. Another important point is that appellations of origin cannot be granted without a description of the production process, which passes into the public domain. The holders of traditional knowledge may choose to keep it confidential, in which case this IPR system cannot be applied.

In any case, before granting geographical indications and passing related legislation, an assessment of the expected benefits and costs should be carried out both at the national, regional and/or sub-regional levels. Building on the French experience, some basic requirements should be fulfilled to request an appellation of origin:

- First and foremost, the product should have unique characteristics, or a unique • reputation, associated with qualities of the geographic region and the production methods specific to that region. Creation of a widely known link between the name of the product and its geographical origin is a matter of time and resources and success is not guaranteed and simply cannot be decided by decree. Moreover, tradition and authenticity are not the only attributes that the product should embody and should not be regarded as static features (Hobsbawm & Ranger 1983). Quality is socially constructed and the way it is measured and signified is constantly subject to change and adaptation (Sylvander 1995). Moreover, growing demands with respect to health aspects and the practicality of food products might be in opposition with a concern for the protection of the environment and with a restrictive view of the preservation of tradition (Bérard & Marchenay 2004). If the local products cannot be quickly prepared and preserved for use at any time, they are not very likely to find outlets, even if they carry such values as authenticity or tradition at the utmost degree (Renard 1999).
- There should be reasons to protect the product, such as unfair international competition, abuse of its name or threatening attempts to protect the geographical denomination as a trademark in foreign countries. These conditions imply the existence of an actual or potential market, or at least of competition on the supply side.

- Geographical indications have an impact only to the extent that they respond to consumer interest, both locally and globally. Systems modelled on appellations of origin are easier to adopt in countries that tend to place a high cultural value on distinctive local and regional products and cuisine. There must also be a significant export market for differentiated commodities, which implies segmented market demand, hence good information and widespread acknowledgement of the specific qualities of the product (Rangnekar 2004). Besides, geographical indications are more likely to develop for agricultural products or generally speaking end products or inputs that will have a certain level of visibility in the final product. Industries will not buy labelled inputs at a premium price if they cannot use the special qualities of the product in their marketing and do not need them for technical reasons. Moreover, there is the risk of dependence on a single source of supply, especially for primary commodities.
- A key issue is the organizational dimension of production, marketing and labelling in the area covered by the prospective geographical indication. The producers should be organized in associations or at least involved in informal co-operation networks and should have access to technical and legal expertise. The support of national administrative and legal authorities to producer organizations is also crucial. However, the system should neither be too centralised nor should it be based on local initiatives only. Certainly, some form of corporate vision is needed. Given the complexity of the demand for differentiated products and the transient nature of the attributes of 'quality ' or 'tradition", the producers may need to adopt a flexible approach to product development and marketing, involving a greater degree of foresight and innovation compared to industrialized commodity sectors. Paradoxically perhaps, the commercial success of geographical indications probably lies in an effective combination of tradition and modernity. Effective implementation would require support from state agencies, strong involvement of producer associations with proven entrepreneurial skills. To put it plainly, the producers must combine power with market competence.

- Prospective studies of the impacts of product labelling should be carried out and should not be limited to the economic dimensions of product development markets, prices but should include more indirect effects as the increase in prestige of the area and effects on land use. On the one hand, the success of the geographical indications can induce a radical change in the scale of production. The growth in demand for the protected products may transform the economic viability of farms in the region, and entail sudden changes in land use and patterns of production and even social tensions if a high proportion of land is required to satisfy the demand. (Marsden *et al.* 2000; Downes & Laird 1999). On the other hand, success could cause disruption in management systems and impose unanticipated stress on local ecosystems. A failure of the marketing strategy would of course require social and organizational resilience as well, especially if it had required extensive investments.
- Finally, the protection of a given area could have adverse consequences at other • territorial levels or on other regions. Thus, the opportunities and potential to develop local specialty products must be balanced against regional and national strategic considerations associated with more generic marketing and promotion. National production and exports should not be sacrificed on the altar of more local development strategies, especially where the value-added potential of sub-regional identities cannot be exported. Also, too many sub-regional initiatives may intensify competition in domestic markets reducing prices (Marsden et al. 2000). The promotion of the locality should not lead to defensive 'localism", and minimize internal difference in the name of some 'local good' (Winter 2003). Similarly, the development of geographical indications should not lead to turn some places or practices into museum pieces and some farmers into wardens or keepers to be paid for this specific role. This could induce a specialization among the farmers that would confine some of them to the conservation of traditions, resources and knowledge, while the rest would carry on production activities and be able to 'develop', and adopt new varieties and techniques. Such a development could arouse social unrest. A balance needs to be found between local expectations and more general interests.

Appellations of origin hold the potential of re-linking production to the social, cultural and environmental aspects of particular places, distinguishing them from anonymous mass-produced goods. In this sense, they can be understood as part of the broader movement of alternative agriculture, trying to re-embed production into local contexts, like organic farming or fair trade, in opposition to globalization of trade and standardization of food and tastes.

This re-embedding has too often been perceived as diametrically opposed to the homogenizing and dis-embedding forces of globalization, which is an overdrawn dichotomy. Globalization and localization are related and mutually conditioning. Even the giant food companies that have a global reach are forced to adapt to local circumstances through local variations in cuisine or food purchasing habits (Murdoch *et al.* 2000). Similarly, even the so-called local markets depend on global conditions. They imply some degree of normalization, as products have to meet safety and health norms — e.g. those of the *Codex alimentarius* — and procedural requirements, and quality must be homogeneous. The search for local differentiation in product development should not overshadow the fact that some 'industrial' qualities are needed, even for small-scale production (Allaire & Boyer 1995).

6. CONCLUSION

The development of geographical indications has been advocated as a possible tool to implement farmers' rights, promote biodiversity conservation and uphold traditional knowledge. Geographical indications are already recognized worldwide and they are designed to protect the reputation of agricultural products linked to the qualities of the natural environment in which they originate, but also could at least partly protect traditional

knowledge and local practices. These characteristics are particularly interesting for developing countries that have committed themselves to adopt IPR systems and to institute collective rights to biodiversity and related knowledge for farmers and indigenous people.

However, it is not certain that expected advantages of this IPR system will in fact materialize for developing countries. The international legal protection of geographical indications presently benefits mainly industrialized and wine-producing countries. Moreover, the on-going negotiations on the scope of this form of protection reflect an economic and diplomatic conflict between the United States and the European Union, which also affects developing countries. Each camp tries to extend its sphere of influence through bilateral agreements and cooperation programmes.¹⁵ As a consequence, some developing countries have committed themselves to protect foreign geographical indications, without having domestic legislation that allows protection for their own products. Finally, national regulations on geographical indications that have been adopted hitherto in developing countries are neither meant to maintain genetic diversity, nor to uphold traditional knowledge.

Several factors could contribute to turning geographical indications into a sound policy option in developing countries:

(a) An expansion of the scope of the international protection of geographical indications. The extension of the international protection presently granted to wines and spirits to other products would be a decisive progress. The specificity of local foods should be recognized in the *Codex alimentarius*

¹⁵ In France, the Department of Economic and International Policies of the Ministry of Agriculture is in charge of the coordination of the promotion of geographical indications abroad. Its geographical priorities are defined according to economic and diplomatic criteria. Preferred targets include the countries representing important actual or potential outlets for French exports, the countries counterfeiting French products and the countries whose position on geographical indications could counterbalance the US influence at the WTO.

and special dispensations should be allowed in international rules and health norms to favor market development.

- (b) A reorientation of the cooperation programmes funded by industrialized countries towards the areas presenting a high level of agrodiversity. In addition, standards for products qualifying for geographical indications should systematically include specific guidelines for sustainable use and the preservation of traditional or local knowledge. Special attention should be paid to this point by the donor agencies involved in legal assistance as well as by the relevant national authorities in charge of geographical indications development.
 - (c) The integration of local producers into networks to favor the sharing of experience and expertise on technical or organizational issues or to develop co-coordinated marketing strategies.¹⁶

In conclusion, geographical indications might be an interesting policy tool, but they should not be considered as a sufficient means neither to ensure in situ conservation of genetic resources at the national level, nor to institute and protect new rights for farmers. Indeed, the development of geographical indications creates a network of protected areas, whose production is highly valued on international markets and may create rents for farmers in specific areas, while no particular protection is granted to the rest of the national territory.

¹⁶ Like ORIGIN (ORganisation for an International Geographical Indications Network), which is a network of producers set up in 2003 in Switzerland.

REFERENCES

- Allaire, G., R. Boyer. 1995. La Grande transformation de l'agriculture: lectures conventionnalistes et régulationnistes. Paris: Inra.
- Barham, E. 2003. Translating terroir: The global challenge of French AOC labeling, *Journal of Rural Studies* 19: 127-138.
- Bérard, L. and P. Marchenay. 1996. Tradition, regulation and intellectual property: Local agricultural products and foodstuffs in France. In *Valuing local knowledge: Indigenous peoples and intellectual property rights,* ed. Brush, S. and D. Stabinsky. Washington D.C.: Island Press.
- Bérard, L. and P. Marchenay. 1998. Les processus de patrimonialisation du vivant et leurs conséquences, In *Patrimoine et modernité*, ed. Poulot, D. Paris: L'Harmattan.
- Bérard, L. and P. Marchenay. 2000. Le vivant, le culturel et le marchand: Les produits de terroir. In Vives campagnes, *Le patrimoine rural, projet de société*, ed, Chevallier, D. coll. Mutations 194: 191-216. Paris: Autrement
- Bérard, L. and P. Marchenay. 2004. Les produits de terroir. Entre cultures et réglements, Paris: CNRS Editions.
- Boisvert, V. and A.Caron. 2002. The convention on biological diversity: An institutionalist perspective of the debates. *Journal of Economic Issues* 36(1): 151-166.
- Downes, D. R. 1997. Using intellectual property as a tool to protect traditional knowledge: Recommendations for next steps, CIEL Discussion Paper. Washington, DC: Center for International Environmental Law.
- Downes, D. R. and S.A. Laird. 1999. Innovative mechanisms for sharing benefits of biodiversity and related knowledge. Case Studies on Geographical Indications and Trademarks, document prepared for UNCTAD Biotrade Initiative. Washington, DC: Center for International Environmental Law. Last accessed on April 12, 2006 at http://www.ciel.org/Publications/InnovativeMechanisms.pdf,

Dupré, L. 2002. Du marron à la châtaigne d'Ardèche. La relance d'une produit regional, Paris: Comité des travaux historiques et scientifiques.

- Dutfield, G. 1997. Can the TRIPS agreement protect biological and cultural diversity? Biopolicy International Series n°19. Nairobi: ACTS Press
- Dutfield, G. 2000. Intellectual property rights, trade and biodiversity, London: Earthscan.
- Escudero, S. 2001. International protection of geographical indications and developing countries, TRADE Working paper #10. Geneva: South Centre.

- European Commission. 2004. Protection of geographical indications, designations of origin and certificates of specific character for agricultural products and foodstuffs, directorate-general for agriculture food quality policy in the European Union, Working document of the Commission services, guide to Community regulations, 2nd edition, August.
- Goldberg, S. D. 2001. Who will raise the White Flag? The battle between the United States and the European Union over the protection of geographical indications. University of Pennsylvania. *Journal of International Economic Law* 22: 107-151.
- Hobsbawm, E. and T. Ranger (eds). 1983. *The invention of tradition*, Cambridge; New York: Cambridge University Press.
- Institut National des Appellations d'Origine (INAO). 2002. Guide du demandeur d'AOC/AOP. Paris: INAO
- Kunstadt, R. and G. Buhler. 1998. La bataille des Bud. La decision d'une juridiction helvétique met en evidence les risques croissants que courent les marques de fabrique géographique, *Revue du droit de la propriété intellectuelle* 93: 22-28.
- Marsden, T., J. Banks, and G. Bristow. 2000. Food supply chain approaches: exploring their role in rural development, *Sociologia Ruralis* 40(4): 424-438.
- Murdoch, J., T. Marsden, J. Banks. 2000. Quality, nature and embeddedness: Some theoretical considerations in the context of the food sector. *Economic Geography*, 76(2): 107-125.
- Posey, D. and G. Dutfield. 1996. *Beyond intellectual property, toward traditional resource rights for indigenous peoples and local communities*. Ottawa: IDRC.
- Rangnekar, D. 2004. The socio-economics of geographical indications. A review of empirical evidence from Europe, UNCTAD/ICTSD, Issue paper n°8.
- Renard, M-C. 1999. The interstices of globalization: The example of fair coffee, *Sociologia Ruralis* 39 (4): 484-500.
- Sedjo, R. 1992. Property rights, genetic resources and biotechnological change. Journal of law and economics 25 (1): 199-213.
- Sylvander, B. 1995. Conventions de qualité et institutions: le cas des produits spécifiques, In Agroalimentaire: une économie de la qualité, ed. Valceschini, E. & F. Nicolas. *Economica*. Paris: Inra.
- Tinlot, R., Juban, Y. 1998. Différents systèmes d'indications géographiques et appellations d'origine. Leurs relations avec l'harmonisation internationale, Bulletin de l'OIV, 811-812: 773-799.

- Thiébaut, L. 1995. Environnement agroalimentaire et In Agroalimentaire: une économie de la qualité, ed. Valceschini, E. & F. Nicolas. *Economica*. Paris: Inra.
- Winter, Michael. 2003. Embeddedness, the new food economy and defensive localism, *Journal of Rural Studies* 19: 23-32.
- WIPO. 2001. Introduction to geographical indications and recent international developments in the World Intellectual Property Organization (WIPO), Symposium on the international protection of geographical indications, WIPO and DNPI, Montevideo,WIPO/GEO/MVD/01/1.
 - 2002. On Geographical indications: Historical background, nature of rights, existing systems for protection and obtaining protection in other countries, Standing Committee on the law of trademarks, industrial designs and geographical indications, 8th session, Geneva, SCT/8/4.
- 2003a. Information on national experiences with the intellectual property protection of traditional knowledge, Intergovernmental committee on intellectual property and genetic resources traditional knowledge and folklore, 5th session, Geneva, WIPO/GRTKF/IC/5/INF/2.
 - _____. 2003b. Consolidated survey of intellectual property protection of traditional knowledge, intergovernmental committee on intellectual property and genetic resources traditional knowledge and folklore, 5th session, Geneva, WIPO/GRTKF/IC/5/7.
- . 2003c. Composite study on the protection of traditional knowledge, intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore, 5th session, Geneva, WIPO/GRTKF/IC/5/8.
- . 2004a. Traditional knowledge: Policy and legal options, intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore, 6th session, Geneva, WIPO/GRTKF/IC/6/4.
- . 2004b. The protection of traditional knowledge: Outline of policy options and legal elements, intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore, 7th session, Geneva, WIPO/GRTKF/IC/7/6.
- WTO. 2001a. Extension of the protection of geographical indications for wine and spirits to geographical indications for all products: Potential costs and implications. Communication from Argentina, Australia, Canada, Chile, Guatemala, New Zealand, Paraguay and the United States. IP/C/W/289.

- 2001b), Work on issues relevant for the protection of geographical indications.
 Extension of the protection of geographical indications for wine and spirits to geographical indications for other products. Proposal from Bulgaria, Cuba, the Czech Republic, Egypt, Iceland, India, Liechtenstein, Mauritius, Nigeria, Sri Lanka, Switzerland, Turkey and Venezuela. IP/C/W/247.
- 2001c. Work on issues relevant to the protection of geographical indications. Extension of the protection of geographical indications for wine and spirits to geographical indications for other products. Proposal from Bulgaria, Cuba, the Czech Republic, Egypt, Iceland, India, Jamaica, Kenya, Liechtenstein, Mauritius, Nigeria, Pakistan, Slovenia, Sri Lanka, Switzerland, Turkey and Venezuela. IP/C/W/247 Rev.1.
- 2001d. Work on issues relevant to the protection of geographical indications.
 Extension of the protection of geographical indications for wine and spirits to geographical indications for other products. Communication from Bangladesh, Bulgaria, Cuba, the Czech Republic, Georgia, Hungary, Iceland, India, Jamaica, Kenya, The Kyrgyz Republic, Liechtenstein, Moldova, Nigeria, Pakistan, Slovenia, Sri Lanka, Switzerland and Turkey. IP/C/W/308 Rev.1.
- 2002a. The extension of the additional protection for geographical indications to products other than wine and spirits. Communication from Bulgaria, Cuba, Cyprus, the Czech Republic, the European Communities and their Member States, Georgia, Hungary, Iceland, India, Kenya, Liechtenstein, Malta, Mauritius, Pakistan, Romania, The Slovak republic, Slovenia, Sri Lanka, Switzerland, Thailand and Turkey. IP/C/W/353.
- _____. 2002b. Implications of Article 23 Extension. Communication from Argentina, Australia, Canada, Chile, the Dominican Republic, El Salvador, Guatemala, New Zealand, Paraguay, the Philippines, Chinese Taipei and the United States. IP/C/W/386.
- 2005. Issues related to the extension of the protection of geographical indications provided for in Article 23 of the TRIPS Agreement to products other than wines and spirits, Compilation of issues raised and views expressed, WT/GC/W/546, TN/C/W/25.

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