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## **GEOGRAPHICAL INDICATIONS FOR AGROBIODIVERSITY PRODUCTS?**

### **Case studies in France, Mexico, and Brazil**

**Juliana Santilli**

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Geographical indications can also be a tool to enhance the value of agrobiodiversity products and promote sustainable rural development. This legal and economic instrument is aimed at identifying and adding value to products and services associated with certain territories, conceived in their natural and cultural dimensions. Geographical indications establish a connection between products (or services) and their territorial identity, and the quality, characteristics, and reputation of origin-based products are essentially associated with their geographical origins.

Geographical indications create special markets for differentiated products that are linked to traditions and cultural identities and seek their own form of competition in markets dominated by globalized and standardized products. Standardized products are “soulless,” with no cultural roots, and can be found in stores and supermarkets anywhere in the world. Origin-based products (protected by geographical indications) form part of the cultural and biological heritage of the countries/regions from which they originate. Some of the many classical examples of products with geographical indications and which are named after the places where they originated include tequila, Parmigiano-Reggiano cheese, Darjeeling tea, champagne, Roquefort cheese, Parma ham, feta cheese, and port wine.

France was a pioneer country in granting legal protection to geographical names, passing its first law on geographical indications – known in France as *appellations d’origine contrôlées* (AOC) – as far back as 1919,<sup>2</sup> initially for wine and then for all agrifood products (in 1990). Many other European countries, especially in southern Europe (Italy, Spain, Portugal, and Greece),<sup>3</sup> also use geographical indications to promote rural development, and in 1992 the EU regulated geographical indications and designations of origin for agricultural products and foodstuffs (with the exception of wines and spirits), through Council Regulation (EC) No. 2081/92, which was replaced by Council Regulation (EC) No. 510/2006.<sup>4</sup> In 1994, the obligation to recognize and

protect geographical indications as IP rights was included in the WTO's TRIPS Agreement. As all WTO member countries have to sign and implement the TRIPS Agreement, geographical indications became recognized and legally protected in many countries after this agreement came into effect, in 1996 (according to Article 65.1 of the TRIPS Agreement).<sup>5</sup>

Geographical indications are defined by this agreement 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 attributed to its geographical origin" (Article 22). Although the TRIPS Agreement establishes a definition for geographical indications, countries have some flexibility to adopt their own definitions in national laws, as long as they grant effective protection against any use of geographical names that misleads the public as to the true place of origin of the good and/or constitutes an act of unfair competition.<sup>6</sup> The legal protection granted to geographical indications not only prevents misuse (and imitations) of geographical names on national and international markets, but it also enables the codification of the whole production process and promotes a link between producers and consumers. Geographical indications recognition also tends to reinforce local identity and pride in the product.

However, the TRIPS Agreement establishes higher levels of protection for wines and spirits than for other goods. The TRIPS Agreement forbids the use of geographical indications identifying wines and spirits not originating in the place indicated by the geographical indication even when the true origin of the wine or spirit is indicated or the geographical indication is used in translation or accompanied by expressions such as "kind," "type," "style," "imitation," or the like (Article 23.17). For example, the name "cognac" cannot be used to describe products that are not produced in the French region of Cognac (as cognac is a protected geographical indication), even if identified by, for example, the expression "cognac produced in New Jersey." In the case of other goods, provided the true origin is indicated and this eliminates the possibility of misleading the consumer, the false geographical name may be used, for example "Espelette-type peppers, produced in New Jersey" (Espelette is a French protected geographical indication). Two main issues are being debated in the TRIPS Council: the establishment of a multilateral system of notification and registration of geographical indications for wines and spirits and the extension of the higher level of protection provided for wines and spirits to other products.

The TRIPS Agreement also sets forth that there is no obligation to protect geographical indications that are not or cease to be protected in their country of origin, or which have fallen into disuse in that country (Article 24.9). This means that the protection of geographical indications must first be established at the national level before it can be obtained at the international level. There is also no obligation to protect geographical indications that have become "generic" or common names,<sup>8</sup> and many disputes concerning what is the "generic" nature of a geographical name have already arisen. Camembert cheese is an example: as Camembert has been used for over a century to define a type of cheese that is produced in several countries, the producers in the region of Camembert (Normandy, France) have not been able to reserve the exclusive right to use the name. The protection has been granted only to "Camembert de Normandie," as a protected designation of origin, but not to Camembert alone, since it became a generic or common name.<sup>9</sup> In the case of feta cheese, producers from other countries (especially Denmark) also tried to have the name "feta" considered a generic one. However, EU courts ruled in favor of recognition of this denomination of origin to Greece, considering that feta cheese is associated with a type of cheese traditionally

made in some areas of Greece (mainland and the island of Lesbos), from lamb milk or a mixture of lamb and goat milk, through a natural and traditional method of press-free drying. Thus, the designation “feta” can be used only by producers established in Greece.

Geographical indications must not be confused with trademarks, which are also IP rights protected under the TRIPS Agreement. Trademarks are distinctive signs which are used by companies to identify themselves and their products or services to consumers. Trademarks distinguish products or services from other, identical, similar or related ones which are made by different companies or persons. Trademarks are not associated with specific territories, and characteristics of the products or services are not linked to their regions of origin, unlike geographical indications. They differentiate products according to the companies which make them, not to their geographical origins. Producers established in a region delimited by a protected geographical indication may not move to a different region and continue to use the same geographical name, or even negotiate the use of the name to other producers who are not established in that region (geographical indications are collective and nontransferable rights<sup>10</sup>), or whose products do not have qualities associated exclusively or essentially with the delimited territory. Trademarks can be negotiated by their owners, and products with registered trademarks may be manufactured in any geographical region.

Conflicts can occur between the owner of a prior registered trademark<sup>11</sup> and local producers who want to protect their geographical indications. According to the TRIPS Agreement (Article 22.3), member states must refuse or invalidate the registration of a trademark that contains a geographical indication with respect to goods not originating in the territory indicated (if use of the indication in the trademark for such goods misleads the public as to the true place of origin). However, when a trademark has been applied for or registered in good faith before the geographical indication is protected in its country of origin, the registration of the trademark (which contains a geographical name) cannot be invalidated by member states (Article 24.5). This happened in the case of rooibos herbal tea (also known as red bush tea), which is specific to the southwest of South Africa: rooibos was registered as a trademark in the United States by a rooibos exporter in 2001, although there is no specific geographical indication protection system (only collective trademarks) in South Africa. This situation made it difficult for South Africans to export rooibos to the United States, and led to litigation that resulted in an out-of-court settlement at a cost to the industry of about US\$1 million.<sup>12</sup>

Now that the main characteristics and purposes of geographical indications have been presented, we will discuss its potential use to add value to agrobiodiversity products and to integrate *in situ*/on-farm strategies for conservation and sustainable use of agricultural biodiversity. It should not be assumed that geographical indications will always be an adequate instrument to enhance the value of agrobiodiversity products, and some experiences may be useful to highlight the socioenvironmental, cultural, and economic conditions needed for such purpose. There are both positive and negative examples, and we will start presenting the experiences of Laurence Bérard (anthropologist) and Philippe Marchenay (ethnobiologist), researchers from the Centre National de la Recherche Scientifique (CNRS),<sup>13</sup> involving French geographical indications (*appellations d'origine contrôlées* – *AOC*). Then we will show the negative impacts of the geographical indication of tequila, in Mexico.

In France, many products are designated by their places of origin, that is, the geographical name of the place where they were made, and some examples are Beaufort and Comté cheeses (made in the French regions with the same name) and Roquefort

cheese (which has become so well known that some people assume it is just a type of cheese, not realizing that it is the name of a French town and region where it is produced). Although geographical indications were not developed for this purpose, Laurence Bérard and Philippe Marchenay defend their use for promoting conservation of biological and cultural diversity, by means of adding value to products that hold intrinsic relations with their territory (*terroir*), in both its environmental and cultural dimensions, and which are associated with traditional practices and knowledge (*savoir-faire*) and a collective memory. They give some French examples (Bérard and Marchenay, 2004, 2008; Bérard *et al.*, 2005):

- *Ardèche chestnuts*. For centuries nut production was one of the main activities in the Ardèche department (in the center–south of France), and local communities learned to identify, select, and graft a large variety of chestnuts, with sizes, shapes, and organoleptic qualities that vary from place to place, according to local practices and customs. Some chestnut varieties from northern Ardèche are traditionally eaten boiled with every meal, replacing bread, and in the south other varieties have become a staple food. Social, cultural, and economic life in the Ardèche always revolved around chestnut production, a local product that is intimately connected with the territory (*terroir*). When chestnut production declined, introduction of hybrid varieties was considered, to meet the requirements of technical and commercial criteria. However, this would have been a complete distortion of the entire traditional system, which would have changed from agroforestry to intensive cultivation, and many producers protested. In order to create greater appreciation for their traditional form of production, farmers requested recognition of a denomination of origin (granted in 2006), covering 19 varieties of exclusively local chestnuts. The use of hybrids and chemical fertilizers is prohibited, and only traditional agroforestry is permitted. The denomination of origin protects, as a unit, the chestnut groves, local varieties, and methods of tree husbandry as well as the landscape.
- *Cider, calvados, and poiré from Normandy*.<sup>14</sup> Cider is a fermented drink made from apple juice, *poiré* is made from pears, and *calvados* from apples which are fermented into cider and then distilled. Therefore, it is not possible to talk about calvados and not talk about cider and a cultivation system known as *pré-verger*, in which orchards are associated with animal pastures. The same space provides fruits (apples and pears) for production of beverages and grass for cattle (used in production of cheese and other milk derivatives, as well as beef). Local farmers hold a wide variety of knowledge associated with interactions among animals, pasture, trees, and fruit. Apples can be classified as sweet, bittersweet, bitter, acid, acidulated, etc. A total of 177 varieties have been identified. Some of the products associated with cider protected by AOC are *calvados*, *calvados Pays d’Auge*, *calvados Domfrontais*, and Normandy *pommeau*. Among milk products, Normandy Camembert and butter and fresh milk from Isigny stand out. The AOC for the Domfront *poiré*, recognized in 2002, establishes *plant de blanc* as the main pear variety, which is traditionally used in that region, although other local varieties may also be used. The AOC defines how plant resources (pear trees) and associated agroecosystems (orchards) should be managed, providing norms regarding pruning, plantation density (which should be under 150 trees per hectare), associations between orchards and pastures, etc. In this case, products protected by AOC aim to ensure continuity of local productive systems. Previous AOCs, such as Crau hay (1999) and Comté cheese (1958), also resulted from a systemic view which transcends the product, focusing on the agroecosystem as a whole.

- *Espelette peppers, Puy green lentils, Cévennes sweet onions, and Paimpol beans*. All of these food products are protected by AOC which allow farmers to reproduce their own seeds, an important exception to the general French rule, which is extremely restrictive regarding use and production of seeds by farmers themselves. In all four cases, farmers can multiply and use seeds produced in their properties, as long as they are not sold as such (as seeds). This makes it possible for farmers to select and improve seeds of local varieties for sexual reproduction, making use of traditional knowledge and practices. This permission recognizes the role of farmers as plant improvers, and they do not depend on intermediaries, which, in commercial systems, are responsible for seed multiplication. By selecting seeds in accordance with differentiated criteria (plant size, shape, volume, taste, fruit color, etc.), farmers maintain plant diversity. AOCs were recognized in the following years: 2000 (Espelette peppers), 1996 (Puy green lentils), 2003 (Cévennes sweet onions), and 1998 (Paimpol beans).

If French researchers can give positive examples of use of geographical indications to enhance the value of agrobiodiversity products, the same is not true in the assessments made by Mexican researchers Ana Valenzuela-Zapata and Jorge Larson, regarding social and environmental impacts of denominations of origin for tequila and mezcal in Mexico. Both tequila and mezcal<sup>15</sup> are distilled beverages made from agave, a plant with juicy stems and leaves that is rich in carbohydrates and which resembles a gigantic pineapple. Mexico is a center of origin and diversity for agave, a plant adapted to volcanic soils and arid and semiarid regions, which constitute 45.5 percent of the Mexican territory, and the large diversity of both cultivated and wild agaves make up the natural and cultural landscape of the country.<sup>16</sup>

The denomination of origin for tequila was one of the first in Latin America, recognized by a 1974 Mexican law,<sup>17</sup> and the denomination of origin for mezcal was recognized later, in 1994. Tequila is the name of a town located in the state of Jalisco, but the denomination of origin for tequila includes not only the Jalisco territory, but also Guanajuato, Michoacán, Nayarit, and Tamaulipas. According to the code of practices of the tequila denomination of origin, only the *Agave tequilana* species (also known as blue agave) can be used for production of this distilled drink, and the denomination covers both tequila (in which sugarcane sugars can substitute up to 49 percent of blue agave) and 100 percent tequila (made exclusively from blue agave).

According to Bowen and Valenzuela-Zapata (2008), prohibition of the use of agave species other than blue agave in tequila production resulted in the virtual disappearance of other agave, which led to severe loss of diversity of species and varieties of this plant. Genetic homogeneity of agave crops made them more vulnerable to pests and diseases, and large-scale industrial tequila production, mainly for export, contributed to the disaggregation of traditional agricultural systems and to the replacement of diversified agricultural systems by large monocultures of blue agave. Furthermore, there was a sharp increase in the use of chemical pesticides instead of traditional agricultural practices, and growing farm mechanization eliminated many jobs (Bowen and Valenzuela-Zapata, 2008). The region delimited by the denomination of origin is home to 105 companies, mostly foreign, and approximately 30 million blue agave plants (60 million tons) are consumed annually in the production of nearly 205 million liters of tequila (Valenzuela-Zapata *et al.*, 2006; Valenzuela-Zapata, 2007). According to Jorge Larson (2007a,b), diversity of agave species is considered a drawback in the industrial production chain of tequila, and farmers became mere suppliers of labor. Criteria for quality, imposed vertically to ensure sanitary security and homogeneity, turned tequila

into an industrial chemical product. Nevertheless, traditional tequilas still exist, although their production is isolated and clandestine.

The fact that the denomination of origin for mezcal, approved in 1994, follows the same path as tequila's geographical indication, regarding monoculture and loss of diversity of species and varieties of agave, raises concerns. Only five species of agave are allowed to be used for production of mezcal, although the Mexico Committee on Biodiversity has already identified 12 species of agave that can be used in production of mezcal and tequila, in addition to others which have not yet been studied. The region covered by the denomination of origin for production of mezcal includes the states of Durango, Guerrero, Oaxaca, San Luis Potosí, and Zacatecas, but mezcal is also produced in other regions, such as southern Puebla state and Morelos (not included in the denomination of origin). mezcal cannot be sold under this name (mezcal) when produced outside the region of the denomination of origin, which excludes other producers. According to Larson (2007b), the denomination of origin favors "*dé-localisation*" ("*delocalization*" or loss of local identity) of mezcal, standardizes its production, and disregards not only the rich biological diversity, but also the countless techniques of preparation, cooking, fermentation, and distillation held by local communities. Valenzuela-Zapata also points out that there is a vast range of clandestine mezcals, in which the diversity of species and varieties of agaves used and conserved in production of this distilled drink is much larger than in mezcals produced in accordance with official regulations. According to Valenzuela-Zapata (2007), varietal pureness is promoted as increasing the quality of tequila and mezcal, and the rules for both denominations of origin disregard the diversity of varieties and species of agave and the different practices, knowledge, and cultural processes associated with them.

In Brazil, there have been very few studies into the use of geographical indications to promote agrobiodiversity conservation, and sustainable use. However, Delphine Vitrolles, Luiz Mafra, and Claire Cerdan (Vitrolles *et al.*, 2006) were responsible for two case studies, both in Minas Gerais, involving the following products: (1) coffee from the Minas Gerais Cerrado (Brazilian savanna), which was formally recognized as a geographical indication by INPI (the Brazilian institute for industrial property, responsible for registering geographical indications) in 2005; and (2) Serra da Canastra cheese, which still has not been officially awarded a geographical indication, but the possibility is being discussed by its producers, with the support of the state's technical assistance and rural extensions institutions (EMATER and EPAMIG), universities, local government, and French cooperation.

Minas Gerais is a Brazilian state (in the southeast) that is nationally renowned for its high production of milk and handcrafted cheeses. The reputation of "Minas cheese" is widespread in Brazil. Generally, Brazilians associate "Minas cheese" with a type of white cheese, whether or not it is produced in the state of Minas Gerais. However, some regions in the state of Minas Gerais are traditional producers of Minas cheese, which is made in a small-scale, nonindustrial manner, using raw milk, curds, and a natural yeast (called *pingo*). These regions were characterized and identified by IPHAN (Brazilian federal cultural heritage agency) as being Serro, Serra da Canastra, and Salitre (or Upper Paranaíba), when IPHAN carried out the necessary studies for the registration of the "non-industrial process of making Minas cheese" as Brazilian immaterial cultural heritage.<sup>18</sup> According to IPHAN, the "non-industrial process of making Minas cheese" is a form of "traditional knowledge and an outstanding feature of cultural identity of these Minas Gerais regions."

The study carried out by Delphine Vitrolles, Luiz Mafra, and Claire Cerdan (Vitrolles *et al.*, 2006) focused on Serra da Canastra cheese, and these researchers reported the

following findings. Production and consumption of cheese in the Canastra mountain range are part of the history of this region, which was occupied mainly in the eighteenth century, during a historical period known as the “mining cycle” (when colonization focused on mining activities in the southeast of Brazil). Portuguese immigrants who came to this territory produced their cheese according to traditional practices and techniques that they had brought from a region known as the Estrela mountain range, in Portugal. Serra da Canastra cheese has been made in accordance with a traditional and empirical method for over 200 years, and the region known as the Canastra mountain range (Serra da Canastra) is made up of seven municipalities – Bambuí, Delfinópolis, Medeiros, Piumhi, São Roque de Minas, Tapiraí, and Vargem Bonita – which have common environmental, sociocultural, and economic characteristics. According to the IBGE (Brazilian Statistics and Geographical Studies Institute, 2002), 69.9 percent of the properties in this region are less than 100 hectares, which shows the predominance of small-scale family farming, and in many towns traditional cheese production is the main source of employment income for farmers. It is thus an activity that makes it possible for many families to continue making a living, without having to migrate to big cities. Serra da Canastra cheese is cylindrical, with a diameter of approximately 15 centimeters, whitish when fresh, with a slim yellow rind after a few days of maturation, and it is produced using raw milk. The characteristics of Serra da Canastra cheese result from a combination of traditional techniques and methods of production and geographical, climatic, and soil conditions which are associated, to some extent, with the fact that the region is the origin of the São Francisco River (Vitrolles *et al.*, 2006).

Nevertheless, families that produce Serra da Canastra cheese face several difficulties and unfair competition, because the geographical name “Canastra” is a registered trademark of industrial producers<sup>19</sup> who make cheese using pasteurized milk. This often prevents consumers from being able to differentiate handcrafted Serra da Canastra cheese (made with raw milk and traditional techniques) from industrial cheese, as industrial producers also use the name “Canastra,” taking advantage of its reputation among consumers. Furthermore, federal sanitary regulations establish requirements (such as pasteurization of the milk and maturation time) which are incompatible with the traditional manner of producing cheese. In order to overcome this problem, the State of Minas Gerais passed Law 14185, of 2002, which allows the use of raw milk in traditional Minas cheese. These state regulations were created as a result of the recognition that pasteurized milk completely changes the properties of handcrafted Minas cheese, as well as the relationship between the end product and the natural environment in which the animals are raised. However, the Minas Gerais state law with specific regulations for handcrafted Minas cheese only partly solved the problem, as Serra da Canastra cheese is sold not only in Minas Gerais, but also in São Paulo and Rio de Janeiro, and interstate and international cheese trade is regulated by federal laws, which do not include such an exception for a traditional cheese-making process.

The second case studied by Vitrolles *et al.* (2006) focused on the geographical indication recognized for “coffee from the Minas Gerais Cerrado,” which is produced in social, cultural, and economic contexts entirely different from traditional Minas cheese. These researchers point out that coffee from the Minas Gerais Cerrado (savanna) is not a traditional product, and that this region only became occupied by coffee growers in the 1970s, when coffee growers from other states, especially Paraná (south of Brazil), sought land with favorable climate conditions for coffee growing. As lands in the Cerrado were considered to be of low fertility, coffee growers managed to buy large areas where coffee could be cultivated in an intensive and mechanized manner. The specific characteristics of Minas Gerais Cerrado coffee are mainly associated with

environmental conditions in this region, which is located in a continental zone of the Brazilian territory that is somewhat shielded from the effects of oceanic fluctuations. This region has a peculiar distribution of sunlight, which ensures uniform growth of the coffee. Thus, Minas Gerais Cerrado coffee has an intense aroma, delicate acidity, and a sweet but full flavor, characteristics that add economic value. Minas Gerais Cerrado coffee is sold as raw material to large roasting industries, and its production is aimed mainly at the international market (United States, EU and Japan). Regulations for coffee production are very strict, in order to meet international standards. The registration of the geographical indication by the Cerrado Council of Coffee Grower Associations (Conselho das Associações dos Cafeicultores do Cerrado – CACCER) is part of a strategy for competitive insertion in the international market, with value added to a differentiated product. Norms for coffee production also include several social and environmental demands, and the geographical area covered by the geographical indication includes the regions of Triângulo Mineiro, Upper Paranaíba and part of upper and northwest São Francisco.

The different social, cultural and economic contexts and different motivations of social stakeholders involved in the production of Serra da Canastra cheese and Minas Gerais Cerrado coffee are pointed out by Vitrolles *et al.* (2006): Serra da Canastra cheese is a traditional product produced by a method that has been passed from one generation to the next, and is associated with a strong identity and cultural heritage. Geographical indication is an instrument to recognize the value of handcrafted cheese, which is threatened by legal regulations that restrict the use of raw milk and increasing competition from industrial cheese. Furthermore, the geographical indication claim aims to make economically feasible an activity that represents the main source of income for the vast majority of family farmers inhabiting the Minas Gerais cheese-making regions. For coffee growers, the geographical indication aims to highlight the close bond between the coffee and the environmental characteristics of the territory in which it is produced, to give it a competitive edge in an international market that increasingly seeks “special” or gourmet coffees with differentiated aroma and taste.

Brazilian agriculture (like in many Latin American countries) is essentially marked by a sharp duality of agricultural models – small-scale family farming and industrial agribusiness – and the coexistence of these two models creates diverging political, social, and economic interests, which have important impacts on the definition of public policies in support of geographical indications. There are two ministries in charge of policies for agricultural and rural development in Brazil:20 the Ministry of Agriculture, Livestock and Food Supply (Ministério da Agricultura, Pecuária e Abastecimento – MAPA), whose mission is to “encourage growth of agricultural production and development of agribusiness,” and the Ministry of Agrarian Development (Ministério do Desenvolvimento Agrário – MDA), which is responsible for agrarian reform and family farming policies, and these two ministries often develop contradicting public policies. MAPA created the Coordination of Geographical Indications for Agricultural Products, which carried out studies on potential geographical indications in Brazil and identified some products, such as Serrano cheese, wines, and grapes in Rio Grande do Sul; Serrano cheese and Goethe grapes in Santa Catarina; coffee in Paraná; handcrafted Minas cheese, cachaça,<sup>21</sup> and yams in Minas Gerais; curd cheese, *cajuína*,<sup>22</sup> handcrafted cachaça, buriti<sup>23</sup> sweets, and cashew nuts in Ceará; and cacao, flour, ornamental fish, *guarana*,<sup>24</sup> *açaí*,<sup>25</sup> Brazil nuts, and *cupuaçu*<sup>26</sup> in Amazonia; among others.<sup>27</sup>

In Acre (Brazilian Amazon), among other products, manioc (cassava) flour was identified as a potential product for geographical indication recognition. However,

Mauro de Almeida *et al.* (2009) point out, in a study for the Biodivalloc program,<sup>28</sup> that public policies aimed at supporting geographical indications in Brazil have not integrated the environmental and cultural dimensions of local production processes, and have focused primarily on sanitary regulations, homogeneity of the product, and visibility of the package. This perspective does not favor conservation of biological diversity and the associated cultural heritage, which includes traditional knowledge and practices. Delphine Vitrolles (2009) also analyzed the use of geographical indications<sup>29</sup> to enhance the value of a local speciality, Serrano cheese from Rio Grande do Sul (in southern Brazil), and concluded that it tends to promote the exclusion of most producers and the loss of cultural identity and diversity. The standardization of production norms tends to lead to the homogenization of the product, undermining its typicality (Vitrolles, 2009).

Public policies involving geographical indications must take into consideration the different agricultural models that exist in most developing countries, so that these instruments can benefit not only large producers, but also family, traditional, and agroecological farmers. It is not enough to make local products more lucrative if there are no mechanisms to ensure that the added value will benefit all stakeholders involved in the local production system, and not only intermediaries. There must be fair distribution along the entire production and supply chains, as well as at all market stages. Producers' organizations must represent the various social categories and interests of the geographical indication system, and act with transparent and balanced rules, allowing the participation of all stakeholders in political decisions, which includes the producers of raw material and ingredients used in the geographical indication system. A balanced representation of stakeholders in the geographical indication system should ensure that smaller producers have an equal voice, and that benefits are equitably distributed.

Additionally, public policies aimed at promoting geographical indications must consider not only quality standards, but also the social, cultural, and environmental sustainability of products. When the rules in the "codes of practices" are established, they must guarantee the sustainability of the geographical indication system and prevent overexploitation of natural and local resources if the geographical indication becomes a commercial success. The specificity of certain geographical indication products relies on the use of native plant varieties and breeds, frequently threatened with extinction. Traditional production techniques often participate in preserving traditional landscape features, as well as avoiding land and soil degradation, and the "codes of practices" must allow enough legal space for such techniques. Codes of practices must contemplate rules specifically aimed at promoting diversity, in order to avoid excessive homogeneity and/or industrialization, which destroys local identity and typicality. Phytosanitary regulations should also incorporate diversity as a value, and seek a balance between human health and food security standards and the recognition of the value of local and traditional practices which are relevant for agricultural diversity.

Geographical indications will be a tool in favor of agrobiodiversity conservation and sustainable use only if this is a specific goal of public policies and of all stakeholders involved in the geographical indication system. In order to avoid common negative effects of geographical indications, such as the exclusion of certain agrifood products because protection is granted only to a few – to the detriment of others – it is important to think of new geographical indication models that are focused not only on specific agrifood products, but on agricultural systems as a whole, comprehending all of its elements and interrelations and its entire environmental and cultural diversity. A systemic approach will promote diversity and heterogeneity of genetic resources,

whereas, if only one resource is promoted, there is a high risk of specialization and loss of genetic diversity.

Geographical indications for origin-based products must be seen as part of a comprehensive and integrated rural development strategy. Geographical indications can be a starting point for the development and promotion of an entire geographical/cultural heritage, as well as a whole basket of goods and services associated with it. When a differentiated basket of local products and services is promoted, instead of just one specific product, the focus is placed on the territorial identity of a group of products that are closely associated with local history and culture (Pecqueur, 2003; Fonte and Acampora, 2007). This means that local stakeholders can use geographical indication products and the specific local resources linked to them (local gastronomy, traditions, landscapes, etc.) and their reputation as a tool to increase the competitiveness of the entire local and economic system. The geographical indication products will be elements of territorial identity for all local actors and assume the role of catalysts in an integrated rural development strategy.<sup>30</sup> In this way, highly valued public interests – such as agrobiodiversity conservation and sustainable use, cultural heritage, including food heritage and diversity, consumers' protection, local development, etc. – will be promoted, and not just the interests of private IP holders.

However, it is important to consider that not all agrobiodiversity products have great commercial and economic potential, despite their high environmental, social, and cultural value, and that policies aimed at differentiated insertion of agrobiodiversity products in the market will always have limited impact, and should be only part of broader public policies for agrobiodiversity conservation and use.

## Notes

1) Darjeeling tea is cultivated, processed, and manufactured in the hilly areas of Darjeeling district, in the state of West Bengal in India.

2) In 1905, a French law gave the government the task of identifying areas in which farming production could be eligible for *appellation d'origine contrôlée* (AOC), and the first decree delimitating the champagne production area was approved in 1908. In 1919, a French law established geographical indications as collective IP, but did not establish a legal definition of geographical indications. In 1935, a new decree law established a national committee for wine-growing geographical indications, which became in 1947 the *Institut National des Appellations d'Origine* (INAO). Sources: [www.inao.gouv.fr](http://www.inao.gouv.fr) (accessed January 15, 2010), Bérard and Marchenay (2008), and Roncin and Boulineau (2005).

Since 2006, INAO has been responsible not only for AOCs, but also for all designations of quality and origin for agrifood products in France. These include *Spécialités Traditionnelles Garanties* (guaranteed traditional specialties, which are not associated with the area of origin, but with a traditional composition of a product, or which are produced according to a traditional production method, and are regulated, at the European level, by Regulation 509/2006); since 1960, *Label Rouge* (red label, which guarantees that a product is of superior quality to similar products, and exists in France); and *Agriculture Biologique* (agroecological agriculture, which respects the environment and farmers' autonomy, and is regulated, at the European level, by Regulation 834/2007). INAO changed its name to *Institut National de l'Origine et de la Qualité*, but it kept the same abbreviation (INAO).

3) More than 10,000 legally protected geographical indications exist worldwide. Developing countries together account for about 10 percent of the total, and the other 90 percent of geographical indications come from the 30 OECD countries. The

countries/areas with the largest number of protected geographical indications are: the EU, 6,021 (5,200 wines and spirits, 821 foods); the United States, 910 (730 wines, 100 spirits, 80 foods); Switzerland, 682 (660 wines and spirits, 22 foods); New Zealand, 600 (550 wines, 50 foods); Australia, 427 (all wines); and China, 403 (mostly foods but 23 wines and spirits and other products). Chile has 82 (80 wines and spirits, two foods); India 45 (foods and other products, no wines or spirits); and Mexico 10 (foods, wines and spirits, and other products). In the EU, the main origins of protected geographical indications are: (excluding wines and spirits) Italy, 174; France, 162; Spain, 119; Portugal, 114; and Greece, 86. Source: International Trade Center (2009) 'Guide to Geographical Indications: linking products and their origins' ([http://www.intracen.org/publications/Free-publications/Geographical\\_Indications.pdf](http://www.intracen.org/publications/Free-publications/Geographical_Indications.pdf); accessed November 15, 2010). This guide includes case studies on Antigua coffee (Guatemala), Blue Mountain coffee (Jamaica), Darjeeling tea (India), Gobi Desert camel wool (Mongolia), Kona coffee (Hawaii), mezcal (Mexico), Nariño coffee (Colombia), and Veracruz coffee (Mexico).

4) According to European Council Regulation No. 510/2006, "designation of origin" means the name of a region, a specific place, or, in exceptional cases, a country used to describe an agricultural product or a foodstuff originating in that region, specific place, or country, the quality or characteristics of which are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors and the production, processing and preparation of which take place in the defined geographical area. According to the same Regulation, "geographical indication" means the name of a region, a specific place, or, in exceptional cases, a country used to describe an agricultural product or a foodstuff originating in that region, specific place, or country and which possesses a specific quality, reputation, or other characteristics attributable to that geographical origin, and the production and/or processing and/or preparation of which take place in the defined geographical area.

That is, for designation of origin protection, all phases of the production process must be localized inside the production area and the quality of the product must be strictly related to a particular geographical environment with its inherent natural and human elements. The geographical indication covers agricultural products and foodstuffs closely linked to a geographical area, where at least one of the stages of production, processing, or preparation takes place within the given area. Source: [http://eur-](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:093:0012:0025:en:PDF)

[lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:093:0012:0025:en:PDF](http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:093:0012:0025:en:PDF) (accessed January 15, 2010).

5) The WIPO (World Intellectual Property Organization, the UN agency specialized in IP) is responsible for the administration of a number of international treaties that deal partly or entirely with the protection of geographical indications, notably the Paris Convention for the Protection of Industrial Property (1883, with several later revisions) and the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (1958). For more information, see [http://www.wipo.int/geo\\_indications/en/](http://www.wipo.int/geo_indications/en/) (accessed January 15, 2010).

6) According to the TRIPS Agreement (Article 22.4), the geographical indication protection is also applicable against a geographical indication which, although literally true as to the territory, region, or locality in which the goods originate, falsely represents to the public that the goods originate in another territory. For example, there is a city named Paris (Parisi, actually) in the state of São Paulo

(Brazil), but if a product label says “wine produced in Paris,” it will be misleading the public as to the true origin of the wine, even if it is literally true as to the name of the city where it was produced.

7) Article 23.3 of the TRIPS Agreement requires that each member state determine the practical conditions under which the homonymous indications will be differentiated from each other in order to avoid misleading consumers.

8) Source: *Linking People, Places and Products: A Guide for Promoting Quality Linked to Geographical Origin and Sustainable Geographical Indications*, FAO and Siner-GI (Strengthening International Research on Geographical Indications) (<http://www.foodquality-origin.org/guide/guide.pdf>; accessed January 12, 2010).

9) Another example of a conflict involving a “generic” name is the Cotija cheese, from Mexico. The genuine Cotija cheese reputation has been under threat by producers using the designation “Cotija type” for cheeses that may have been produced outside the original production area. Consequently, the name “Cotija” is often used in a generic way. “Cotija type” cheeses are often made by industrial processes (through intensive production, without maturation and with fillings, etc.) and as a result they tend to be cheaper, although the taste can still be distinguished from authentic Cotija cheese. In order to preserve the Jalmich mountain farmers’ distinctive way of life and to ensure a sustainable income for their products without having to relocate from the region, the producers of Cotija cheese have been engaged since 1999 in a process of qualification. They have sought to obtain legal protection for the reputation of authentic Cotija cheese through the use of a denomination of origin. The Mexican Intellectual Property Office rejected the denomination of origin request in 1994, as it considered the denomination to be generic and registered the name “Cotija region of origin” under a collective trademark. Thus, other producers can still use the name “Cotija” for cheese even if it may have been produced elsewhere. There are increasing concerns over the potential for a shift away from local production, the transfer of IP rights away from the local community, as well as misuse of the name by other producers outside the area who do not comply with local standards and code of practice. Source: ‘Case Study 1: Generic name or not? A GI product with a collective trademark, Cotija Cheese (Mexico)’, in *Linking People, Places and Products: A Guide for Promoting Quality Linked to Geographical Origin and Sustainable Geographical Indications*, FAO and Siner-GI (Strengthening International Research on Geographical Indications) (<http://www.foodquality-origin.org/guide/guide.pdf>; accessed January 12, 2010).

10) In principle, geographical indications are protected as of the date of registration until the conditions of registration cease to exist, and there is no need to renew the registration.

11) Nearly seven years ago, Ethiopia’s coffee sector launched a plan to take better advantage of its coffee diversity (Ethiopia is a center of origin and diversity for coffee). Ethiopia applied for trademark registrations of its world-renowned speciality coffee brands (Sidamo, Harar, and Yirgacheffe) in the United States, Canada, and other countries. At the same time, Ethiopia began negotiating with coffee roasters to sign agreements acknowledging the right of Ethiopians to control these brands.

Ethiopia succeeded in registering its coffee brands in the EU, Japan, and Canada. In the United States, Ethiopia registered Yirgacheffe, but Starbucks Coffee, a large multinational company, opposed the registration of the Sidamo and Harar brands, which are sold at high prices, as gourmet coffees, in its stores all over the world. After a lengthy campaign, with support from Oxfam (a development agency), Starbucks Coffee agreed to sign an agreement with the government of Ethiopia,

acknowledging the rights this country has over its coffee brands and establishing conditions for Starbucks Coffee to distribute and sell these Ethiopian coffee brands. Currently, Ethiopia has successfully registered trademarks in Canada, the EU, the United States, and Japan. Source: [www.oxfam.org.au/media/article.php?id=285](http://www.oxfam.org.au/media/article.php?id=285) (accessed January 12, 2010).

12) Source: 'When a GI is registered outside of the territory, the example of Roobois' (Box 4), in *Linking People, Places and Products: A Guide for Promoting Quality Linked to Geographical Origin and Sustainable Geographical Indications*, FAO and SINNER-GI (Strengthening International Research on Geographical Indications) (<http://www.foodquality-origin.org/guide/guide.pdf>; accessed January 12, 2010).

13) Bérard and Marchenay are members of the Eco-Anthropology and Ethnobiology research unit of CNRS (Centre National de la Recherche Scientifique). They are joint heads of a research team titled "Ressources des Terroirs – Cultures, Usages, Sociétés," based in Bourg-en-Bresse, in France. For further information, see [www.ethno-terroirs.cnrs.fr](http://www.ethno-terroirs.cnrs.fr).

14) Normandy is a region in northwestern France, currently divided into two administrative regions: Lower Normandy, which includes the departments of Calvados, Manche and Orne, and Upper Normandy, which includes the departments of Eure and Seine-Maritime.

15) The word mezcal originates from *metl* (agave) + *calli* (cooked) in *Náhuatl*. *Náhuatl* is a group of languages and dialects in the Aztec linguistic family. Currently, it is spoken mainly in central Mexico. According to the *Ley General de Derechos Lingüísticos de los Pueblos Indígenas*, passed in Mexico in 2003, *Náhuatl*, as well as other Indigenous languages, are recognized as national languages.

A large family of distilled drinks made from agave are known as mezcal, to which sugar can also be added. Initially, tequila was considered a type of mescal (called "mezcal tequila wine"), but it ended up acquiring its own identity and being called tequila only.

Prior to the Spanish invasion, mezcal (cooked agave) was widely used as sugar, before the introduction of sugarcane.

16) In 2006, the agave landscape and ancient industrial facilities of tequila were recognized by UNESCO as world heritage, under the category "cultural landscape." For further information, see <http://whc.unesco.org/en/list/1209> (accessed January 12, 2010).

17) Other Mexican products protected by denominations of origin include *bacanora*, *sotol*, and *charanda* (all three are distilled spirits), the Ataulfo mango, Veracruz and Chiapas coffee, and Talavera pottery. In South America, other examples of agrifood products protected by geographical indications are *quinua real del Altiplano*, from Bolivia; *blanco gigante del Cuzco*, a local maize variety from Peru; and pisco, a type of distilled liquor made from several varieties of grapes from southern Peru and northern Chile. Pisco was registered as a geographical indication by both countries (Peru and Chile).

18) The "non-industrial process of making Minas cheese" was recognized by IPHAN (a federal agency) as immaterial cultural heritage on June 13, 2008. According to Decree 3551, of 2000, knowledge and manufacturing techniques embedded in the daily lives of communities can be registered in the Registry of Knowledge (which is one of the cultural heritage safeguarding tools). Handcrafted Serro cheese was also registered as immaterial cultural heritage of the State of Minas Gerais on August 7,

2002, based on Decree 45505, of 2002, which provides for registration of immaterial cultural heritage of the State of Minas Gerais.

19) According to the National Institute of Industrial Property (INPI), the “Canastra” trademark is registered on behalf of Piumhiense Cooperative Society of Milk Products Ltd. According to Article 124 of Law 9279/1996 (which regulates trademarks, geographical indications, and other IP rights in Brazil), INPI must refuse or invalidate trademarks that contain false geographical indications and mislead the public as to the true place of origin of the product. However, INPI still has not invalidated this trademark (as of February 10, 2011).

20) In Brazil, there are two types of geographical indications: indications of origin (*indicações de procedência*) and denominations of origin (*denominações de origem*), according to Law 9279 of 1996, Article 176 ([http://www.planalto.gov.br/ccivil\\_03/Leis/L9279.htm](http://www.planalto.gov.br/ccivil_03/Leis/L9279.htm); accessed January 20, 2010). Indications of origin correspond to the geographical name of the country, town, region, or location in a given territory which became known as a center of extraction, production, or manufacturing of a product or service. Therefore, an indication of origin requires only a connection between the product and a given geographical location, regardless of its intrinsic characteristics and qualities. In contrast, a denomination of origin requires not only that there is a connection between the product and its geographical location, but also that the product has unique characteristics that are related to the territory, including natural aspects (climate, soil, vegetation, etc.) and cultural aspects (traditional knowledge, practices, processes and techniques, etc.) The right to use geographical indications is collective, inalienable, and extends to all producers established in the delimited territory. The registration of a geographical indication can be requested only by associations, cooperatives, or other collective entities that represent the producers of a particular geographical area.

In Brazil, the National Institute of Industrial Property (Instituto Nacional de Propriedade Industrial – INPI) is responsible for registration of geographical indications, which are recognized as collective IP rights. INPI has already registered the following Brazilian geographical indications: (1) wine from the Vinhedos Valley, a wine-producing region in the Rio Grande do Sul mountains (in southern Brazil), in 2002; (2) coffee from the Minas Gerais Cerrado, in 2005; (3) beef and its derivatives, from the Pampa Gaúcho da Campanha Meridional (an ecosystem of Rio Grande do Sul), in 2006; (4) handcrafted *cachaça* from Paraty, in 2007; (5) grapes and mango from Vale do Submédio São Francisco, in 2009; (6) leather products from Vale do Sinos (state of Rio Grande do Sul), in 2009; (7) white, red, and sparkling wines from Pinto Bandeira (state of Rio Grande do Sul), in 2010; and (8) rice from the Litoral Norte Gaúcho (north coastal area of Rio Grande do Sul), in 2010. Source: <http://www.inpi.gov.br/menu-esquerdo/indicacao/igs-registradas/nacionais/> (accessed February 10, 2011).

21) *Cachaça* is a liquor made from fermented sugarcane. It is the most popular distilled alcoholic beverage in Brazil.

22) *Cajuína* is a nonalcoholic drink prepared from cashew apple juice in a traditional manner, especially in the Brazilian states of Piauí and Ceará (northeast).

23) The *Buriti* tree is one of the biggest palm trees in the Amazon, with nutritious fruit and nuts.

24) *Guaraná* is a berry that grows in Venezuela and the northern parts of Brazil, and it is very rich in caffeine. Sateré-Mawé is the name of a Brazilian Indigenous people. In Brazil, native Sateré-Mawé *guaraná* is one of the local agrifood products that the Slow Food movement has been working with. Slow Food is an international

membership organization that defends biodiversity in food supply, promotes food and taste education, and connects sustainable co-producers through events and building networks. Slow Food's activities are aimed at protecting traditional and sustainable quality foods and defending the biodiversity of cultivated and wild varieties as well as cultivation and processing methods. Slow Food's approach to agriculture, food production, and gastronomy is based on a concept of food quality defined by three interconnected principles: good – fresh and flavorsome seasonal diet that satisfies the senses and is part of our local culture; clean – food production and consumption that does not harm the environment, animal welfare, or our health; and fair accessible prices for consumers and fair conditions and pay for small-scale producers. For further information, see [www.slowfood.com](http://www.slowfood.com) (accessed January 10, 2010). In Brazil, Slow Food initiatives have involved several local agrifoods, such as *baru* nuts, *canapu* beans, red rice, *cagaita*, *umbu*, *pequi*, and *mangaba* (the last four are native fruits of the Brazilian Cerrado/savanna), among others ([www.slowfood-brasil.com](http://www.slowfood-brasil.com); accessed January 10, 2010).

25) *Açaí* is a species of palm tree found in South America, and its fruits and hearts of palm are widely used for food. Ripe fruits are a deep-purple color.

26) *Cupuaçu* is a type of fruit tree native of the Amazon Rainforest. It is commonly used to make juices, jams, and ice-cream.

27) These are only a few examples. For a complete list of products, see <http://www.agricultura.gov.br/portal/page/portal/Internet-MAPA/pagina-inicial/desenvolvimento-sustentavel/indicacao-geografica> (accessed January 10, 2010).

28) The Biodivalloc program “*Des productions localisées aux indications géographiques: quels instruments pour valoriser la biodiversité dans les pays du sud*” (From localized products to geographical indications: which instruments to value biodiversity in southern countries?) aims to analyze local biodiversity management processes and evaluate how legal instruments (such as geographical indications and other distinctive signs) can be adapted to promote conservation of biological and cultural diversity and meet the needs and expectations of local communities. The program adopts an interdisciplinary perspective, and it analyzes concrete case studies: in Ethiopia, impacts of geographical indications on the diversity of “forest coffees” and home gardens are analyzed; in Senegal, ecocertifications for sea and mangrove products are analyzed; in Niger, interfaces between localized products and trademarks associated to national and regional parks are analyzed; and in South Africa, interfaces between geographical indications and specific ecosystems are assessed. In the Brazilian Amazon, the analysis is centered on geographical indications for local products, such as manioc/cassava flour from Cruzeiro do Sul (Acre), and on the use of cultural heritage instruments to safeguard traditional agricultural systems of the Rio Negro region. In India, the use of geographical indications to value agroforestry systems is evaluated. The Biodivalloc program is developed by the joint research unit (UMR 208) for Local Heritage of the Institut de Recherche pour le Développement (IRD)/Muséum National d'Histoire Naturelle (MNHN), with support from the Agence Nationale de la Recherche/Institut Français de la Biodiversité (2006–2009).

29) The geographical indication for Serrano cheese has not yet been officially recognized (as of February 10, 2011).

30) Sources: “Taking into account environmental and social issues in the code of practice’ and “Extended territorial strategies for increasing rural development’, in *Linking People, Places and Products: A Guide for Promoting Quality Linked to*

*Geographical Origin and Sustainable Geographical Indications*, FAO and SINER-GI (Strengthening International Research on Geographical Indications) (<http://www.foodquality-origin.org/guide/guide.pdf>; accessed January 12, 2010). This study mentions several cases of geographical indication products based on biodiversity resources, such as *chivito* Criollo del Norte Neuquino (goat, Argentina), cacao Arriba (Ecuador), cherry of Lari (Italy), and Jinhua ham (China).

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