Geographical Indications and Territories with Specific Geographical Features in the EU: the Cases of Mountain and Island Areas

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Paper prepared for the 145th EAAE Seminar "Intellectual Property Rights for Geographical Indications: What is at Stake in the TTIP?"

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Abstract

One of the goals of geographical indications in the EU is to contribute to rural development of remote and less-favoured areas. On the base of a rough estimation of the uptake of geographical indications in mountain and island areas of the EU, it can be concluded that indeed agricultural and food producers of such areas demonstrate a significantly higher use of geographical indication than average in the EU. However, the differences of geographical features reflect themselves in the fact that this use is not uniform: mountain stakeholders do rely more on geographical indications than islands ones. This is an indication that regional and/or rural policies need to be tailored to the local geographical, economic and social specificities of each area concerned.

Introduction

Geographical Indications (GI), are by essence characterised by a strong link between on one side the agricultural and food products their designations cover and, on the other side the area where they are produced, processed and/or packaged. The place of production and/or processing should explain the intrinsic quality specificity of the products concerned and as a consequence their reputation. Issues related to the protection of collective intellectual property rights by such tools (PGI, Protected Geographical Indications and PDO, Protected Designations of Origin) and debates on their recognition beyond the borders of the country recognising them are discussed in the literature. Furthermore, the relationship between this type of intellectual property tool and the overall economic development has been discussed, in particular concerning the food and agricultural sector (although such tools may be applied to non-food and non-agricultural products).

Since the beginning, the EU Regulations (Regulation 2081/92) on geographical indications mention in their recitals as one of their three objectives that it should contribute to rural development in Europe, by generating higher incomes and more employment to remote and/or less-favoured regions (Folkeson, 2005). The subsequent version of the Regulation concerned (Regulation 510/2006) confirm such objective by stressing on the benefits for the rural economy and the local development, particularly in remote and less-favoured areas, of promoting diversification of products having certain characteristics, mentioning also the need to retain rural population in such areas. The latest version of the rules (regulation 1151/2012), not limited to geographical indications in terms of policy tools, repeats these arguments, insisting on the importance for areas where the farming sector accounts for a significant part of the economy and production costs are high. This explains that in over half of the cases, geographical indications do benefit from rural development subsidies (Areté, 2013).

The EU treaties also acknowledge the need to strengthen the economic, social and territorial cohesion, particularly with respect to the regions which suffer from severe and permanent natural or demographic handicaps, such as mountains, islands, outermost or sparsely populated areas (Monfort, 2009). The question whether geographical specificities of these areas are reflected by a particular uptake of geographical indications is examined in the present paper, on the base of two more in-depth studies carried out on issues related to the labelling of products from mountain and island farming (Santini et al., 2012; Santini et al., 2013), limited to agricultural and food products (wines and spirits apart, given the recent

integration of wines and spirits EU geographical indications to the other products' ones). The aim of the present paper is to identify to what extent geographical indications indeed answer to their policy objectives above mentioned in mountain and island territories, and to contribute to the better understanding of their efficiency. The first section shortly summarises the background in terms of impact of geographical indications on rural development and the specificities of the territories at stake (mountains and islands) for their economic development. The second section describes sources and methodology followed to assess the economic importance of geographical indications for economic actors of island and mountain areas. The results of this assessment are presented and discussed in the two subsequent sections, while some policy and research considerations are drawn in the conclusive section.

Background

The fact that products covered by geographical indications are associated with the area where they are produced represents an immobile comparative advantage (Folkeson, 2005), which can benefit to the economic activity in the areas concerned. This is particularly appreciable for economic areas suffering from structural handicaps, where farmers and food manufacturers may benefit from a rent through them. At regional level, this may result directly in new jobs and indirectly in economic, marketing (promotional) and technological spill-overs (London Economics, 2008). Obviously, the impact of geographical indications on rural development will be proportional to their uptake by local economic actors and when agriculture and food are important sectors of the local / territorial economy. Some authors acknowledged that their impact can be limited (Callois, 2004). In addition, an efficient diversification towards specific products implies that at least some consumers are demanding such products for whatever reason (typicity, origin, organoleptic characteristics, environmental aspects etc…). Geographical indications compose one of the different tools that allow consumers to achieve their consumption preferences through its labelling dimension and the protection attached to it. From the numerous cases studies and attempts to draw general conclusions from meta-analysis (Gay et al. 2007, London Economics, 2008), it appears that the impact of geographical indications on the conditions for economic development range from being insignificant (when producers were well-organised anyway or if there is little competition) to significant (when illegitimate use of the names was present or when the development of geographical indication was coordinated with other economic activity such as tourism).

Mountain and islands regions are target areas for rural and regional development policies. In the mountains, agriculture faces several limitations, related to the existence of permanent natural handicaps. Low temperatures, a shorter crop growing period combines, steep slopes and less fertile soils imply higher costs through the need for complex machinery and more working time. Poor accessibility increases the difficulties of mountain farms and food industries (increased collection and transport costs, smaller structures implying less economies of scale). By contrast, island farming suffers from the effects of isolation and small size. Isolation has a strong impact on the cost of transport (Armstrong et al. 2006); increasing the price of inputs – such as fertilisers, seeds, plant protection and animal health – putting downward pressure on export prices as well as making exports subject to climatic and other unforeseen events. The small size of island economies adds to their difficulties by impeding scale economies, limiting competition and rendering the main food processing industries less profitable (e.g., slaughterhouses). In addition, natural resources (land, water) are also under strong pressure given their limited availability and competition between agriculture and other economic activities, notably tourism.

Concerning mountain areas, agricultural and food products play an important role for each of the three elements of sustainable development (ecosystem services production, economic development, social tie). A review of the economic impact of mountain farming and food production shows that the production of agricultural and food products has further direct employment impact in mountain areas both on farm and in the downstream sectors. In the food sector, for example, Hauwuy et al. (2006) indicate that globally, in terms of employment, there are 63% more employed people per unit of production in the case of a mountain quality products compared to the average dairy industry. Reuillon et al. (2012) confirms this fact for the entire French dairy sector: for 100.000 litres processed in mountain areas, there is slightly more employment than in lowlands (+4%). In addition, SME-s are more present in mountain areas (31% of dairy plants in mountain areas have less than 20 employees) than in lowlands (5% only below 20 employees). Mountain food and drink of high quality are also key attractions for tourists visiting the areas. Iorio and Corsale (2010) summarize benefits from rural tourism which provide rural areas and Schermer (2010) acknowledges that agriculture and tourism are interconnected and mutually dependent in mountain areas.

Concerning the social and environmental dimensions of rural development, mountain areas have developed in general strong cultural identity and tradition, notably to face harsh natural

conditions and problems of depopulation and peripherality. Food is at the heart of such identities. Following Holloway, Cox et al. (2006), one can say that mountain agriculture sustains 'a viable rural community and local economy. Apart from avalanche protection, positive environmental externalities of mountain farming are not specific to mountains. However, in mountain areas, cultural landscapes and traditional land uses are common, whereas the scope for intensive land use and mechanisation is limited. This implies that positive externalities in mountain areas might be higher than in most lowlands (Robinson, 2009; Santini et al., 2012). Throughout the EU, many authors agree that mountain agriculture and inclusive mountain food production plays a central role in the preservation of both biodiversity and natural landscape (Perrot, Derville et al. 2009; Cloye 2010; Hopkins 2011; Penati, Berentsen et al. 2011).

Agriculture and food production are also at the heart of the sustainable development of islands, although in a different perspective. Islands suffer from a limited resource base and this has consequences for agriculture: pressure on land and water (tourism, urbanisation), housing markets and land prices (Santini et al. 2013). A small population implies first a lack of critical mass, preventing the economy reaching the minimum size to benefit from scale economies. This limits the range and scale of feasible productive activities and therefore the number of firms, with possible implications for local competition (Armstrong et al. 1998). The potential for diversification in addition, is heavily constrained by diseconomies of scale effects also true within the agricultural sector. Specialisation might result in the 'crowding-out' of all other production (Kerr 2005). A striking example is Jersey, where 45% of the agricultural land (25% of the total area of the island) is covered by potato fields, 99% of the output of which is exported. As a secondary consequence, specialisation also makes it difficult for island food processors to source raw materials locally (e.g., durum wheat for carasau bread in Sardinia, barley for beer in Ibiza, etc.).

Sources and methodology

From the over 1000 designations registered as PDO or PGI in the EU for agricultural products and foodstuffs (wine and spirits excluded), we have sorted those that can be considered to be 'mountain' or 'island' designations, wholly, predominantly or partly, on the base of the geographical area concerned in their technical specifications, available under the EU database DOOR.

For mountain areas, this implies several assumptions: (i) an agreed definition of mountain areas (the less-favoured area in this case); (ii) the definition of different groups (see table 1) in order to cover the different proportions ; (iii) in absence of intra geographical indication information on the spatial distribution of the production, a distribution proportional to the areas concerned. Specific products (mostly meat products, PGI in general) are such that production and/or processing occur partly in a mountain area and partly outside of a mountain area (e.g. production occurs in a mountain area and processing occurs outside a mountain area or vice versa). In general, the processing occurs within mountain areas (or partly within mountain areas) and raw materials (meat) come from larger areas. Such products have been classified in group 2 when the processing occurs wholly in mountain areas (e.g. Jamon de Trevelez), in group 3 when the processing may significantly occur within mountain areas but not only (e.g. Jambon de Bayonne).

Table 1: Different groups of mountains geographical indications

PDO/PGI Groupings	**Criteria for placing PDO/PGIs into specific groupings**
1. Mountain PDOs and PGIs	PDO and PGI denominations where production and processing occurs fully or predominantly in a mountain area.
2. Part-mountain PDO and PGI	PDO and PGI denominations where the designated geographic area of the denomination occurs partly in a mountain area and partly outside of a mountain area and no information exists to suggest that the PDO/PGI products are only produced in lowland areas. Specifically between approximately 10% and 80% of the PDO/PGI area should occur in a mountain area.
3. Peripheral mountain PDOs and PGIs	PDOs and PGIs where a marginal element of the denomination area (approximately < 10%) occurs within a mountain region

For island, the situation is simpler in the sense that in most of the cases, the production and the processing is clearly located wholly on an island (with some exceptions where the area includes marginally some islands (e.g. Feta) or on the contrary is focused on an island with some production on the neighbouring areas (e.g. Pecorino Romano or Huitres de Marennes-Oléron).

Table 2: list of Mountain, part-mountain and peripheral and of Island, part-island PDO/PGIs

Country	Mountain PDO/PGIs	Part-Mountain PDO/PGIs	Peripheral mountain PDO/PGIs	Fully Island PDO/PGIs	Partial Island PDO/PGIs
Italy	38	46	49	33	2
France	14	41	23	7	1
Spain	30	33	26	8	-
Portugal	41	24	9	6	-
Greece	26	40	1	39	2
Germany	3	3	2	4	-
Czech Republic	-	3	3	-	-
Austria	8	1	2	-	-
Slovakia	5	-	-	-	-
Poland	2	2	-	-	-
Slovenia	3	-	-	-	-
Ireland	1	-	-	1	-
United Kingdom	-	2	5	8	1
Cyprus	-	-	-	2	-
Denmark	-	-	-	-	2
Belgium	-	1	-	-	-
Sweden	-	-	-	1	-
Total EU-28	171	196	120	109	8

Source: own elaboration from DOOR

The value of production of EU PDO and PGI identified as “mountain” and “island” geographical indications is obtained from a survey carried out by DG Agriculture and Rural Development among the producer groups in charge of them (value at first marketing point). The value of production of mountain PDOs at producer level cannot be calculated without a certain number of assumptions: (i) estimation of the share of mixed mountain-lowlands PDO-PGI (group 2, hereafter called 'mixed PDO-PGI') to allocate to mountain, (ii) assumptions

concerning the distribution of value added between different stages in the supply chain (in particular farm level and processing stage). For the purpose of this work, 30% of the value of production of part-mountain designation has been allocated to mountain areas and 0% for peripheral and the distribution of value added between processing and at farm stage set to one third – two thirds. These assumptions have been cross-checked on the base on more detailed country studies, e.g. for France, Reuillon estimates the share of PDO and PGI in the French dairy sector value of production at farm level to be 32 % in mountain and 6%, while our assumptions are close: respectively 30% and 8%. Concerning island geographical indications, the value of production at first marketing point only is calculated, for part-island PDO-PGIs on a case by case basis (85% for Pecorino Romano in the base of data from the producers down to 10% for products marginally produced in islands, like Feta).

The total EU mountain and island value of agri-food production is also estimated. For mountain products, FADN (Farm Accountancy Data Network) data are used to analyse the value and volume of agricultural production in mountain areas (at farm gate). The full sample of FADN farms has been considered and the total output of farms in the sample located in LFA mountain areas have been calculated for the years 2007 and 2008. Some sectors are not well captured (honey the production of which is in majority not in hands of farmers, but which is important in terms of geographical indications) and for some MS further estimations have been needed (for MS where the FADN sample does not clearly distinguish LFA mountain farms from other LFA farms, the proportion in terms of areas in the Farm Structure have been used for correction purposes).

Under these assumptions, the European mountains provide for 11.4% (31.3 bn€) of the total EU agriculture output (293 bn€) (Santini et al. 2012). The major component of the total output is offered by livestock production (54.2% of the total), the remaining 45.8% by crop production. The main livestock sectors in European mountain areas are the dairy sector (28%) and the grazing livestock meat sector (16% of the total turnover, more than two-thirds of which is related to beef and veal). Crop sectors of importance are cereals (9% of total production value) and permanent crops (fruit orchards, olive groves and vineyards). The share of the fruit sector (in particular apples, pears, stone fruit and nuts) and the olive sector in the total turnover of mountain farms (6.3% and 7.1% respectively) is significantly higher than the share of the same sectors in total EU agricultural turnover.

Concerning island farming, in the EU FADN (2007 and 2008) sample, 4,018 observed farms were located in islands, including all NUTS 3 islands territories, but not some smaller islands. The average value for 2007-2008 is €11.4 billion (4% of the total). The distribution of island farms by type shows the leading role of specialist horticulture producers (in terms of output) and sheep and goat farms in terms of farm types. Contrary to the case mountain, this estimation can be compared in terms of overall magnitude to data from regional accounts as most islands are also NUTS-2 areas. The agriculture, forestry and fisheries sectors represent 70% more of total GVA (Gross Value Added) in islands than on average in the EU: 2.7% of GVA of EU islands compared with 1.6% of total EU GVA. In absolute terms, this GVA amounts to €7.1 billion.

Results

The purpose of the paper is to assess the uptake of geographical indications in specific territories that are mountains and islands

In terms of number of designations, mountains and islands comprise a significantly larger number of geographical indications per area than the EU average. Island cases represent 10% of the EU geographical indications and the share of mountain and partly-mountain ones reaches 34%, while island and mountain areas represent respectively 3% and 18% of the EU area. In certain sectors, a large proportion of EU geographical indication is located in mountain areas (over 50% for honey or cheese, over 40% for olive oil) or islands (20% or more for olive oil or fruit, gums and resins, essential oils, wool).

Table 3: Number of designations

% of total	Mountain (incl part)	Island (all)
All sectors	34%	10%
Cheese	57%	10%
Honey	55%	-
Olive oil	45%	20%
Fruit	32%	18%
Fresh meat	38%	4%
Processed meat	34%	1%

However, the situation is contrasted between mountains and islands in terms of the economic importance of geographical indications (share of the value of production).

The proportion of PDO and PGI in the total mountain production is estimated to be more than twice higher the average in the EU. In some sectors (cheese and fruit), this ratio goes up to 3 or 4.

Table 4

	Mountain	Total
Milk	22.5%	4.6%
Meat	6.1%	4.0%
Fruit	12.6%	4.4%
Olive	4.4%	3.2%

Concerning dairy, 23% of the mountain milk production is marketed as PDO or PGI (mostly cheese). Reuillon et al. (2012) estimate that, in 2006, 55% of the total French PDO cheese has been produced from mountain milk. Using standard processing coefficients, this represents 1.043 billion litres (31% of mountain delivery quotas, while in total 8% of the total French milk is processed into PDO products; 4% of French lowlands milk). Overall, according to AND (2013), around 10% of the EU cheese production is under geographical indication.

In the meat sector, according to AND (2013), 1% of the fresh meat produced and 5 to 6 % of the cured meat produced is covered by geographical indications in total. Our estimate based on different sources of 4% of the total value of production at farm gate being under geographical indication is consistent, and the mountain sector is significantly more using GIs than the rest of the EU.

Concerning the fruit sector, our estimates differ from those of AND (2013) concerning the total share of GI products (4% according to us, less than 2% in France and Italy according to AND). However, this reinforces the main message that mountain fruit producers, with a strong impact due to the two apples designations in Trentino Alto-Adige: PDO Mela Val di Non and PGI Mela Alto Adige / SüdTirol Apfel, are using geographical indications more than their colleagues from the lowlands.

Finally concerning the olive sector, in terms of value of production, mountain producers seem to sell a larger share than average under geographical indication. In terms of volume, AND estimates that 2% in average of the olive oil production is sold as a PDO or a PGI.

The commercial value represents approximately 355 million € of turnover, representing around 3% of the value of agricultural production on islands, a share similar to the average one in the EU (AND, 2013).

At the sectorial level, cheeses are composing the registered products of highest value. The Pecorino Romano, produced in majority in Sardinia, is the main products, representing one third of the total value of production of island PDO and PGI. Most of the value of production under PDO-PGI is therefore represented by cheese, which is the only sector where PDO and PGI in islands represent a high share of the production (approximately 25% of the islands dairy turnover). The share under PDO and PGI is also important for olive oil (around 7%), but minimal for the other important sectors (around 1% for fruit or vegetables and even less for meat products).

Discussion and conclusion

The first lesson learnt from this exercise, aiming at capturing the uptake of geographical indications by one of its specific target - namely certain remote regions with less favoured geographical conditions like islands and mountains - is that data available is scarce. The information at EU level is already scarce when assessing the economic situation of those areas in particular, and having to cross with a field even less documented (the uptake of geographical indications) implies to rely on strong assumptions and rough estimates (orders of magnitude rather than precise data). In view of the budgetary constraints faced by statistical offices, unless new information technologies allow to develop more cost-efficient market information data collection systems, any global analysis will inevitably suffer from such drawbacks (like it was the case in recent work commissioned by the European Commission – Gay et al., 2007; London Economics, 2008; AND, 2012, Areté, 2013) and therefore needs to be complemented by case studies on specific designations, sectors and/or regions. Integrating simple questions on the uptake of PDOs and PGIs in the Farm structure Survey and even more in the FADN questionnaires could however prove to provide additional meaningful information.

Notwithstanding this preliminary consideration on data availability, several conclusions can be drawn from this work. In general, geographical indications are used by producers (farmers and food manufacturers) located in mountain and islands of the EU, and this is already an indicator that they answer, at least partly, to their objective under scrutiny.

In terms of number of designations, it is evident that, both in mountain areas and islands of the EU, there is a higher concentration of designations than in average in the EU. The relation between the number of designations and the area represented ranges from 2 in the case in mountain areas to 3 in the case of islands (average EU being 1). 34% of the EU geographical indications can be considered as mountain designations, while the EU mountains only represent 18% of its territory. 10% of the designations are island geographical indications, while these islands only represent 3% of the EU territory. In addition, the share of territory being UAA (Utilised agricultural area) is smaller than average, particularly in mountain areas. Therefore, it can be concluded that geographical indication benefit from a stronger uptake than average in those less favoured and remote areas that are mountains and islands in the EU.

However, this uptake is not uniform. First, there is a difference in general between mountain areas and island areas. In terms of economic importance, measured by the relative value of production at producer level, mountain farmers are channelling important shares of their production under geographical indications, particularly in some sectors such as the dairy sector (the total GI value of production at producer level from mountain areas in the dairy sector amounts to 23% of the total dairy turnover of mountain farmers) and the fruit sector. The territorial continuity between mountains and piedmonts is often an asset: whether the specificity is linked principally to the place of production (particularly for cheese or fruit) or to the place of processing (for cured meat in particular), the existence of connections with less remote and handicapped areas can benefit to mountain producers thanks to economies of scale, synergies with processing facilities and/or raw materials sources.

The situation is different in EU islands. If the number of designations is very high on EU islands, their share on the total agri-food turnover is roughly equal to the average one in the EU (around 3%). This indicates that island geographical indications are mostly small and limited to testimonial production in many cases. The fragmented territory of islands, often of small dimensions, the isolation and the existence of physical barriers impeding an easy access (the sea), the tendency to specialise in one or two productions, are all factors not facilitating

the development of larger supply chains for island quality products. In addition, in the few islands of significant size (Sicilia, Sardinia, etc.), such specialisation often occurs in non-specific products (the very efficient underglass or covered vegetables production in South East Sicily are a striking example of a productive agricultural sector which is not likely to be a key target of geographical indications).

Secondly, at the level of individual designations, there is also a high level of heterogeneity. Within island designations, the vast majority of designations are very small, but less than 10% of them, exceeding 10 mio € of annual turnover, represent more than half the total value of production. Similarly within the mountain designations, there are some major players such as Comté cheese as well as some very small and ultra-local production (Bleu de Sassenage for example). Primarily, the many small geographical indications do probably not answer directly to the objective of rural development, but this does not mean that they do not contribute to it indirectly, as a promotional argument or through the establishment and maintenance of social links and the protection of a local cultural heritage, through indirect beneficial environmental effects (e.g. maintenance of terraces).

Such results are consistent with the literature (e.g. Monfort, 2009) on the need of specific policies for regions with specific geographical features. These regions are themselves not uniform; they are grouped according to one of their specificities, but in fact, at lower granularity, several geographical features, and the handicaps attached to them, can accumulate themselves in certain territories, e.g. a remote mountainous unpopulated island of an archipelago faces different challenges than a large relatively flat and populated island close to the continent, although they are both considered under the same group of islands. It follows in general that setting relatively standard regional development programmes for each group of regions is likely to be inefficient. This conclusion can be extended to the use of geographical indications for the purpose of rural development in such areas: a case by case approach where policy intervention are specific to the local context are needed rather than a cross cutting similar approach for each type of region.

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