ALTERNATIVE AGRI-FOOD GEOGRAPHIES? GEOGRAPHIC INDICATIONS IN GREECE

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Received: August 2009; revised December 2009

ABSTRACT

The discussion about alternative agri-food products has led some researchers to proclaim the emergence of alternative agri-food geographies. This paper focuses on the geography of certified geographical indications in Greece. We focus on a number of key characteristics of the products (e.g. area of production, production in less favoured areas) and analyse specific case studies of products, in order to understand their importance and impact (e.g. volume of production, number of businesses that produce them) and investigate the choices of this geography. Evidence suggests that some Greek geographical indications (GIs) exist only 'on paper' and therefore have zero impact on their delimited areas. Furthermore, the impact of GIs depends not only on the characteristics of the product but on the characteristics of the enterprises that produce them as well. A new, although not alternative, agri-food geography is emerging.

Key words: Protected designation of origin (PDO), protected geographic indication (PGI), short food supply chains (SFSCs), alternative food networks (AFNs), quality wine produced in specified regions (QWPSR)

ALTERNATIVE AGRI-FOOD PRODUCTS AND ALTERNATIVE AGRI-FOOD GEOGRAPHIES

In the last few years, agri-food products, which are differentiated positively on a basis of environmental (e.g. organic products), hygiene (e.g. nutritional, wholesome products) and socio-cultural characteristics (e.g. local, traditional products) have been at the forefront (Ilbery & Kneafsey 2000). In this context, the focus of many consumers shifts away from price, packaging and appearance and towards obtaining food products that can be traced to particular people and places (Ilbery & Maye 2005b).

This turn towards healthy, local, and traditional agri-food products has been approached using the notion of quality. Quality, being a socially constructed notion, is characterised by continuous change, as people in different spatial and temporal settings perceive it differently. To fully understand quality agri-food products, researchers turned to alternative food networks (AFNs) and short food supply chains (SFSCs) (Marsden *et al.* 2000).[1] Alternative food networks are variously and loosely defined as networks that are in some ways different from conventional ones (Ilbery & Maye 2005a; Sonnino & Marsden 2006). 'The term AFNs is used as a broad embracing term to cover newly emerging networks of producers, consumers, and other actors that embody alternatives to the more standardized industrial mode of food supply' (Renting *et al.* 2003, p. 394). Some of the common features of AFNs are that: (a) they redistribute value through the food chain against the logic of bulk commodity

Tijdschrift voor Economische en Sociale Geografie – 2011, DOI:10.1111/j.1467-9663.2010.00612.x, Vol. 102, No. 2, pp. 220–235.

Published by Blackwell Publishing Ltd., 9600 Garsington Road, Oxford OX4 2DQ, UK and 350 Main Street, Malden, MA 02148, USA

production; (b) they reconvene 'trust' between food producers and consumers; (c) they articulate new forms of political association and market governance (Whatmore *et al.* 2003; DuPuis & Goodman 2005). However, binary opposites, such as local food/global food, short food supply chains/long food supply chains, are not as simple and clear cut and, therefore, the distinctions between conventional and alternative agri-food products is blurred (Ilbery & Maye 2005a).

This has led to the emergence of short food supply chains (SFSCs) as a more analytic and clear way to describe AFNs, avoiding the unspecified adjectives 'new' and 'alternative' (Renting *et al.* 2003). 'The defining characteristic of a SFSC is the ability to engender some form of connection between food consumer and food producer [. . .] All SFSCs operate, in part at least, on the principle that the more embedded a product becomes, the scarcer it becomes in the market' (Marsden *et al.* 2000, p. 425). Further work on SFSCs (Watts *et al.* 2005) suggests that their defining features are that they form social (e.g. local food) and spatial (e.g. farmers' markets) alternatives to the conventional food chains. Moreover, SFSCs can be alternative economically (e.g. reduction in food miles) and they can provide a wider range of produce. Ilbery and Maye (2005a) suggest also that one defining feature of the SFSCs is the 'turn to quality' (e.g. specialised and niche markets).

In reality, agri-food businesses are not easily labelled as 'alternative' or 'conventional' since they 'dip in and out' of different supply chains according to the environmental context, the market forces and the development of their business (Ilbery & Maye 2005b) and therefore, SFSCs can be viewed as hybridised (Ilbery & Maye 2005a; Winter 2005).

Since AFNs and SFSCs can be 'spatially alternative' researchers started to investigate the so-called alternative geographies of food (Whatmore & Thorne 1997; Parrott *et al.* 2002; Renting *et al.* 2003; Sonnino & Marsden 2006). These geographies revolve around changing production and consumption relations and result in new regional and local food complexes. Such complexes may, at least partially, develop into what Ilbery & Kneafsey (1998) describe as 'quality production areas' that are spatially removed from the 'hot spots' of productivist farming. According to Murdoch *et al.* (2000), those areas that have largely remained marginal to industrialised agriculture are the very areas where quality production might thrive. Attempts to record those alternative geographies include organic farming (Ilbery *et al.* 1999), local products (Ilbery *et al.* 2006), protected designation of origin (PDO) and protected geographical indication (PGI) products (Ilbery & Kneafsey 2000; Parrott *et al.* 2002), SFSCs (Renting *et al.* 2003) and international movements, such as fair trade (Renard 2003).

The content and extent of these alternative geographies differs across European countries with a clear distinction between southern and northern EU countries which is based on different perceptions of quality. In the northern EU countries modern 'quality' definitions (e.g. food safety, traceability and animal welfare) are used, while in the southern countries (France, Spain, Portugal, Italy, Greece) 'quality' is understood in a much wider sense referring to sensorial characteristics of products, which in turn are related to the geographical and human environment and their specificity/typicity (Barjolle & Sylvander 2000). Additionally, in the northern countries the de-spatialisation and de-socialisation of food was almost complete and the recent turn towards 'quality' food, which is characterised by a 'spatial' dimension, is considered to be a turn towards new agri-food products (Marsden *et al.* 2000). However, in the southern countries these products have never ceased to be produced and were always linked to particular places and societies (Verhaegen & van Huylenbroeck 2001). According to Parrott *et al.* (2002) 'quality' agri-food products are associated with marginal and/or peripheral regions in terms of their suitability for agriculture because such regions have, for a variety of reasons, failed to fully engage with the productivist agricultural model. To prove their point the same authors acknowledge that 70 per cent of PDOs and PGIs in the EU 15 originate in less favoured areas (LFAs[2]).

One category of 'quality' agri-food products are those that are linked to a territory and are characterised by a certification as a proof of that link. These are the protected designations

of origin (PDOs[3]), the protected geographical indications (PGIs) and the quality wines which are produced in specified regions (QWPSRs[4]). These certifications of quality are widely accepted, although unevenly, among EU countries. The number of PDO, PGI products and QWPSR wines is increasing. On the 1 September 2004 there were 669 products in the EU-25 (385 PDOs and 283 PGIs; <http://ec.europa.eu/agriculture/agrista/2004/table_en/42491.pdf> accessed on 7 December 2006), while by 26 January 2009 the number increased to 820 (453 PDOs and 367 PGIs; <http://ec.europa.eu/agriculture/agrista/2008/table_en/42491s1.pdf> accessed on 23 April 2009). From the total number of 820 PDO and PGI products, 655 (79.9%) come from the five southern countries. As far as 'quality' wines are concerned there are more than 10,000 geographic indications (QWPSR and table wines with geographic indications) in the various Member States (European Commission 2006).

As far as the certified products 'impact is concerned, there are indications that they can improve the farmers' incomes through the localisation of production (Arfini *et al.* 2003). This localisation can potentially be translated into retaining a greater part of the value added by eliminating intermediaries (Van der Ploeg *et al.* 2000) that typically receive an important part of the overall value of a product, or by creating rarity and scarcity (remuneration of locked-in resources) that theoretically can increase the price and again in theory provide greater value to producers (Banks & Bristow 1999; and the case of the PDO Roquefort cheese, Quetier *et al.* 2005). In many cases these products are produced on traditional small-scale farms in traditional ways and in traditional landscapes. Therefore, the growing demand for those products can be used to sustain the traditional way of life and landscapes of Europe's marginal farming areas (Gilg & Battershill 1998; European Commission 2004). Other social benefits include the preservation of traditional know-how, cultural (Tregear 2003), as well as culinary tradition (Committee of the Regions 1996). The continuation of farming in those marginal areas can be considered an environmental benefit in itself (Belletti & Marescotti 2003). Moreover, human input into traditional production systems contributes to some extent to cultural and environmental biodiversity (Berard & Marchenay 1998). Another benefit is the shifting of production out of the 'industrial mode' (Marsden *et al.* 2000) and the potential re-embedding of farming towards more environmentally sustainable modes of production (Tregear 2003; Renting *et al.* 2003).

Therefore, the assessment of the overall economic and social impacts of geographical indications on their delimited areas needs to address the following issues: (a) the economic success of the product in the market, usually indicated by a higher market price compared to similar products; (b) the scale of production, as economically successful products produced in small quantities have only marginal impacts on their delimited areas, while others may be less successful but have greater impacts due to their large production scale which involves more people in the area; and (c) the distribution of value along the supply chain, as some successful products may have very limited impacts on their delimited areas if the greatest part of this success is yielded by extra local actors (e.g. super markets). The higher price of a PDO means little for its producers in the delimited area when their profits are small and the largest share of the end-price is reaped by the super markets.

This paper focuses on the geography of PDO, PGI products and QWPSR wines of Greece. We will first present this geography and link it to a number of key characteristics of the products (e.g. area of production, production in LFAs) and then focus on specific case studies of products to understand their importance and impact on their delimited areas of production (e.g. volume of production, number of businesses that produce them). More specifically, we present the geography of the PDO, PGI and QWPSR products in Greece in the following section. The third section presents some findings from four case studies which are used to address their impact and importance in Greece. Finally some conclusions are drawn in the last section.

PDOS, PGIS AND QWPSRS IN GREECE

On 7 April 2005, there were 61 PDO and 23 PGI products in Greece. Moreover there were 28

QWPSR wines (20 DOSQs and eight RDOs). All these products and their delimited areas[5] are presented in Table 1.

The size of the delimited areas varies: some of the products are characterised by large or by very small delimited areas (e.g. the area for Feta PDO cheese is 114,379 Km^2, while for San Michali PDO cheese is 90 Km^2). As many as 11 products are produced in *just one* community (NUTS 5[6]). The olive oil Thrapsano PDO is characterised by the smallest delimited area (11 Km^2). As noted elsewhere (Zampounis 2001), many of these areas, as well as their products, are unknown to the average Greek consumer.

Regarding the type of the delimited areas only three products are not produced in less favoured areas (LFAs; Syka Vravronas Markopoulou Mesogeion PGI, Fistiki Aeginas PDO, Fistiki Megaron PDO). Moreover, 54 products (48.2% of the total) are produced exclusively in LFAs (Table 1). Additionally, 33 of the 84 PDO and PGI products (23 PDOs and 10 PGIs) are produced exclusively on island territories, 36 (23 PDOs and 13 PGIs) on continental areas and 29 (all PDOs) on both island and continental areas. From the 28 QWPSRs, 14 are produced exclusively on island territories and 14 on continental ones. The result is that although island territories represent only 18.8 per cent of Greece's territory, 67.8 per cent of the certified 'quality' agri-food products are produced there. The delimited areas of 21 products are not continuous geographically (Table 1), as some products are produced on continental areas and islands (e.g. Feta PDO) or on more than one island (e.g. Kopanisti PDO in the whole Cyclades Prefecture), or due to the definitions in their codes of practice (e.g. Mila Delicious Pilafa Tripoleos PDO is produced in all communities of the Prefecture of Arkadia with an altitude higher than 600 metres).

In some cases, the designations are overlapping, raising questions about the effectiveness of these designations and the rationale behind them. A striking example is the case of the olive oils Krokees Lakonias PDO and Petrina Lakonias PDO, which are produced in two adjoining communities (one product in each community) of the Prefecture of Lakonia. These two olive oils can also be marketed as Lakonia PGI olive oil, a product produced throughout the Prefecture. More examples[7] prove that this overlap between delimited areas of similar (if not identical) products is not accidental, but a result of diverging strategies and goals of different local actors that fail to realise that these products are common resources of the areas.

CASE STUDIES: METHOD AND FINDINGS

This general discussion provides an overall framework for the geography of certified quality agri-food products in Greece. What follows is an analysis of four case studies, which shed more light on the differences among different product types, production practices, supply chains and impact of these products on their delimited areas.

The first refers to the four PDO olive oils (Archanes Iraklio Kritis, Viannos Iraklio Kritis, Thrapsano, Peza Iraklio Kritis) and three DOSQ wines (Peza Iraklio, Archanes Iraklio, Dafnes Iraklio), which are produced in the Prefecture of Iraklio, in Crete. We investigate the relative success of many different designations in a small area. Data about the volumes of production and the enterprises which produce the products were collected via direct communication with the Directorate of Rural Development and Food of Iraklio Prefecture in 2006.

The second case study refers to the RDO wine produced on Samos Island, while the third case study focuses on the Mastiha PDO resin, on the Mastihelaio PDO essential oil and on the Tsikla PDO gum, produced on Chios Island (Figure 1). Both Mastihelaio PDO and Tsikla PDO are products derived from the Mastiha PDO resin. In both of these cases, only one company produces the products mentioned, but they are very different in terms of the success of their products and their impacts on the delimited areas, with the certified products of Chios being an example of both success and positive impacts, while those of Samos are successful but with less positive impacts locally. A number of key informants were interviewed in both cases in order to gain an insight into the volumes of production, the number of employed personnel and other indicators that deal with the impact of the products on the areas of production. Interviews were conducted during August-October 2005. Finally the Codes of Practice of all products were examined to

Table 1. *PDOs, PGIs and QWPSs in Greece.*

Category	A/A	Product denomination	Certification	Delimitation area	Territorial continuity	% LFA	Production area (km^2)
Cheeses	1	Anevato	PDO	Prefecture of Grevena, part of the Pref. of Kozani	Yes	94.8	3,306
	2	Galotyri	PDO	Epirus & Thessaly Regions	Yes	76.9	23,212
	3	Graviera Agrafon	PDO	Part of the Prefecture of Evritania	Yes	80.6	1,641
	4	Graviera Kritis	PDO	Crete Island	Yes	87.5	8,342
	5	Graviera Naxou	PDO	Naxos Island (part of the Prefecture of Cyclades)	Yes	100.0	431
	6	Kalathaki Limnou	PDO	Limnos Island (part of the Prefecture of Lesvos)	Yes	100.0	478
	7	Kasseri	PDO	Macedonia, Thessaly Reg., Lesvos, Xanthi Pref.	No	80.9	52,227
	8	Katiki Domokou	PDO	Part of the Prefecture of Fthiotida	Yes	96.6	583
	9	Kefalograviera	PDO	W. Maced., Epirus Reg., Aitoloak., Evritania Pref.	Yes	90.2	25,921
	10	Kopanisti	PDO	Prefecture of Cyclades	No	100.0	2,600
	11	Ladotyri Mytilinis	PDO	Lesvos Island (part of the Prefecture of Lesvos)	Yes	100.0	1,639
	12	Manouri	PDO	Thessaly, Central and West Macedonia Regions	Yes	79.3	42,682
	13	Metsovone	PDO	Part of the Prefecture of Ioannina	Yes	100.0	273
	14	Batzos	PDO	West and Central Macedonia Regions	Yes	85.2	28,633
	15	Xynomyzithra Kritis	PDO	Crete Island	Yes	87.5	8,342
	16	Pichtogalo Chanion	PDO	Prefecture of Chania	Yes	97.9	2,377
	17	San Michali	PDO	Syros Island (part of the Prefecture of Cyclades)	Yes	100.0	84
	18	Sfela	PDO	Prefectures of Lakonia and Messinia	Yes	75.8	6,636
	19	Feta	PDO	Mainland Greece, Prefecture of Lesvos	No	79.7	114,379
	20	Formaella Arachovas Parnassou	PDO	Arachova Municipality (part of the Pref of Viotia)	Yes	100.0	138
Olive oils	21	Apokoronas Hanion Kritis	PDO	Part of the Prefecture of Chania	Yes	93.9	321
	22	Archanes Iraklio Kritis	PDO	Part of the Prefecture of Iraklio	Yes	100.0	31
	23	Viannos Iraklio Kritis	PDO	Part of the Prefecture of Iraklio	Yes	100.0	164
	24	Vorios Mylopotamos Rethimnis Kritis	PDO	Part of the Prefecture of Rethymno	Yes	100.0	149
	25	Thrapsano	PDO	Thrapsano Community (Prefecture of Iraklio)	Yes	100.0	11
	26	Zakynthos	PGI	Zakynthos Prefecture	Yes	100.0	407
	27	Thassos	PGI	Thasos island (part of the Prefecture of Kavala)	Yes	100.0	385
	28	Kalamata	PDO	Part of Messinia Prefecture	Yes	86.8	844
	29	Kefalonia	PGI	Prefecture of Kefalonia	No	100.0	904
	30	Kolymvari Hanion Kritis	PDO	Part of the Prefecture of Chania	Yes	94.5	214
	31	Kranidi Argolidas	PDO	Part of the Prefecture of Argolida	Yes	100.0	421
	32	Krokees Lakonias	PDO	Krokees Community (part of the Pref of Lakonia)	Yes	100.0	61
	33	Lakonia	PGI	Prefecture of Lakonia	Yes	85.3	3,639
	34	Lesbos	PGI	Prefecture of Lesvos	No	100.0	2,159
	35	Lygourio Asklipiou	PDO	Part of the Prefecture of Argolida	Yes	100.0	180
	36	Olympia	PGI	Part of the Ileia and Achaia Prefectures	Yes	69.3	1,714
	37	Peza Iraklio Kritis	PDO	Part of the Prefecture of Iraklio	Yes	98.0	127
	38	Petrina Lakonias	PDO	Petrina Community (part of the Pref. of Lakonia)	Yes	100.0	29
	39	Preveza	PGI	Part of the Prefecture of Preveza	Yes	47.0	237
	40	Rhodos	PGI	Prefecture of Dodekanisa	No	99.2	2,717
	41	Samos	PGI	Samos & Ikaria islands (part of the Pref of Samos)	No	100.0	734
	42	Sitia Lasithi Kritis	PDO	Part of the Prefecture of Lasithi	Yes	100.0	728
	43	Finiki Lakonias	PDO	Finiki Community (part of the Pref. of Lakonia)	Yes	100.0	14
	44	Hania Kritis	PGI	Prefecture of Chania	Yes	82.9	2,377
	45	Agios Mathaios Kerkiras	PGI	Agios Mathaios Community (part of Kerkira Pref)	Yes	100.0	22
Table Olives	46	Kalamata	PDO	Prefecture of Mesinia	Yes	64.2	2,997
	47	Konservolia Amfissis	PDO	Part of the Prefecture of Fokida	Yes	82.1	416
	48	Konservolia Artas	PGI	Prefecture of Arta	Yes	73.2	1,609
	49	Konservolia Atalantis	PDO	Part of the Prefecture of Fthiotida	Yes	69.5	957
	50	Konservolia Piliou Volou	PDO	Part of the Prefecture of Magnisia	Yes	97.8	573

Table 1. *Continued.*

Category	A/A	Product denomination	Certification	Delimitation area	Territorial continuity	% LFA	Production area (km^2)
	51	Konservolia Rovion	PDO	Rovia Community (part of the Pref. of Evia)	Yes	100.0	57
	52	Konservolia Stilidas	PDO	Part of the Prefecture of Fthiotida	Yes	73.6	520
	53	Trumba-Ambadia Rethimno Crete	PDO	Part of the Prefecture of Rethymno	Yes	100.0	181
	54	Trumba Thasu	PDO	Thasos island (part of the Prefecture of Kavala)	Yes	100.0	385
	55	Trumba Chios	PDO	Chios island (part of the Prefecture of Chios)	Yes	100.0	844
Fruit, vegetables, cereals, bread, pastry, cakes, confectionery, biscuits and other baker's wares, fresh fish, molluscs, crustaceans and other products of animal origin	56	Meli Elatis Menalou Vanilia	PDO	Part of the Prefecture of Arkadia	Yes	100.0	734
	57	Aktinidio Pierias	PGI	Part of the Prefecture of Pieria	Yes	26.0	906
	58	Aktinidio Sperchiou	PDO	Prefecture of Fthiotida	Yes	73.4	4,440
	59	Kelifoto Fistiki Phtiotidas	PDO	Part of the Prefecture of Fthiotida	No	68.0	3,712
	60	Kerasia Tragana Rodochoriou	PDO	Rodochori Community (part of the Imathia Pref.)	Yes	100.0	31
	61	Corinthiaki Stafida Vostitsa	PDO	Part of the Prefecture of Achaia	Yes	86.0	536
	62	Kumquat Kerkyras	PGI	Prefecture of Kerkyra	No	94.7	640
	63	Mila Zagora Piliou	PDO	Part of the Prefecture of Magnisia	Yes	100.0	96
	64	Mila Delicious Pilafa Tripoleos	PDO	Part of the Prefecture of Arkadia	No	98.6	728
	65	Milo Kastorias	PGI	Prefecture of Kastoria	Yes	98.5	1,724
	66	Xera Syka Kymis	PDO	Part of the Prefecture of Evia	Yes	86.6	241
	67	Patata Kato Nevrokopiou	PGI	Part of the Prefecture of Drama	Yes	100.0	872
	68	Portokalia Maleme Hanion Kritis	PDO	Part of the Prefecture of Chania	Yes	48.3	149
	69	Rodakina Naoussas	PDO	Part of the Prefecture of Imathia	No	70.5	112
	70	Syka Vravronas Markopoulou Mesogion	PGI	Mesogia Community (part of the Pref. of Attica)	Yes	0.0	82
	71	Tsakoniki Melintzana Leonidiou	PDO	Leonidio Community (part of the Pref of Arkadia)	Yes	100.0	103
	72	Fasolia Gigantes Elef. Prespon Florinas	PGI	Part of the Prefecture of Florina	Yes	100.0	293
	73	Fasolia Plake Megalosp. Prespon Florinas	PGI	Part of the Prefecture of Florina	Yes	100.0	293
	74	Fasolia Gigantes Elefantes Kastorias	PGI	Part of the Prefecture of Kastoria	Yes	100.0	995
	75	Fasolia Gigantes Elef. Kato Nevrokopiou	PGI	Part of the Prefecture of Drama	Yes	100.0	872
	76	Fasolia Koina Mesosp. Kato Nevrokopiou	PGI	Part of the Prefecture of Drama	Yes	100.0	872
	77	Fistiki Aeginas	PDO	Aegina island (part of the Prefecture of Attica)	Yes	0.0	88
	78	Fistiki Megaron	PDO	Part of the Prefecture of Attica	Yes	0.0	330
	79	Avgotaracho Messolonghiou	PDO	Part of the Prefecture of Aitoloakarnania	Yes	35.0	461
	80	Kritiko Paximadi	PGI	Crete island	Yes	87.5	8,342
Non food products and others	81	Mastiha Chiou	PDO	Part of Chios island (part of the Pref. of Chios)	Yes	100.0	323
	82	Tsikla Chiou	PDO	Part of Chios island (part of the Pref. of Chios)	Yes	100.0	323
	83	Mastihelaio Chiou	PDO	Part of Chios island (part of the Pref. of Chios)	Yes	100.0	323
	84	Krokos Kozanis	PDO	Part of the Prefecture of Kozani	No	94.7	651
Wines	85	Samos	RDO	Part of Samos island (part of the Pref. of Samos)	Yes	100.0	356
	86	Muscat of Limnos	RDO	Limnos island (part of the Prefecture of Lesvos)	Yes	100.0	478
	87	Muscat of Rhodes	RDO	Part of Rhodes island (part of Dodekanisa Pref.)	No	94.4	348
	88	Muscat of Kefalonia	RDO	Part of the Prefecture of Kefalonia	No	100.0	47
	89	Muscat of Patras	RDO	Part of the Prefecture of Achaia	No	56.1	390
	90	Muscat of Rion/ Patras	RDO	Part of the Prefecture of Achaia	Yes	54.1	192
	91	Sitia Kritis	DOSQ	Part of the Prefecture of Lasithi	Yes	100.0	412
	92	Rhodes	DOSQ	Rhodes island (part of the Pref. of Dodekanisa)	Yes	98.6	1,408
	93	Robola Kefalonias	DOSQ	Part of Kefalonia island (part of Kefalonia Pref.)	Yes	100.0	155
	94	Peza Iraklio Kritis	DOSQ	Part of the Prefecture of Iraklio	Yes	97.5	97

Table 1. *Continued.*

Category	A/A	Product denomination	Certification	Delimitation area	Territorial continuity	% LFA	Production area (km^2)
	95	Archanes Iraklio Kritis	DOSQ	Part of the Prefecture of Iraklio	Yes	52.1	87
	96	Dafnes Iraklio Kritis	DOSQ	Part of the Prefecture of Iraklio	Yes	76.8	227
	97	Santorini	DOSQ	Thira & Thirasia islands (part of the Cyclades Pr.)	No	100.0	90
	98	Paros	DOSQ	Paros island (part of the Prefecture of Cyclades)	Yes	100.0	198
	99	Limnos	DOSQ	Limnos island (part of the Prefecture of Lesvos)	Yes	100.0	478
	100	Mavrodafni of Patras	RDO	Part of the Prefecture of Achaia	No	70.3	395
	101	Patras	DOSQ	Part of the Prefecture of Achaia	No	97.2	443
	102	Mavrodafni of Kefalonias	RDO	Part of the Prefecture of Kefalonia	No	100.0	194
	103	Naousa	DOSQ	Part of the Prefecture of Imathia	Yes	86.4	348
	104	Nemea	DOSQ	Parts of the Prefectures of Corinthia and Argolida	Yes	85.4	387
	105	Rapsani	DOSQ	Part of the Prefecture of Larisa	Yes	80.1	158
	106	Mantineia	DOSQ	Part of the Prefecture of Arkadia	No	95.9	710
	107	Zitsa	DOSQ	Part of the Prefecture of Ioannina	Yes	100.0	91
	108	Amyntaio	DOSQ	Part of the Prefecture of Florina	Yes	100.0	392
	109	Goumenissa	DOSQ	Part of the Prefecture of Kilkis	Yes	100.0	209
	110	Angchialos	DOSQ	Part of the Prefecture of Magnisia	No	55.3	107
	111	Cotes of Melitona	DOSQ	N. Marmaras Community (Pref. of Chalkidiki)	Yes	100.0	119
	112	Mesenicola	DOSQ	Part of the Prefecture of Karditsa	Yes	100.0	58

identify possible restrictions, environmental or otherwise, in the products' production techniques and processes.

The fourth case study is a more general one and refers to some cheese PDO products: one of national importance, Feta PDO; one of regional importance, Ladotyri Mytilinis PDO; and one of local importance, Graviera Naxou PDO (Figure 1).

The indicators that are used initially were intended to follow suggestions already existing in the literature (e.g. Renting *et al.* 2003) for farmers and producers and information on consumers and their choices and behaviour. However, the absence of official or secondary data made the use of these indicators not possible. Moreover, the quantity and type of data over the case studies varies due to either the absence of data and/or the unwillingness of various actors to assist us in collecting the required data (e.g. in some case studies such as the Mastiha products, wines of Samos and Ladotyri all the actors involved in the processing were interviewed as they were few, while in others such as Feta only a few were contacted as the actors were many and from those contacted less co-operated). Nevertheless, we attempted to use for the specific case studies what was available or could be collected. More information would benefit the analysis greatly. In the end, different data sources are used for each product (for details see Table 2).

In the case of olive oils, the products' codes of practice (Table 3) mostly deal with the description of the production process and are not substantially different from one case to the other. The only environmental restrictions refer to the protection of the olive trees by the olive fly (*dacus oleae*). In the case of wines, the codes of practice are more detailed but the only environmental restrictions deal with productivity per hectare and irrigation practices. In the case of cheeses, the only restrictions refer to the raw material, milk, which must be produced from sheep and goats traditionally fed and adapted to the delimited areas of production. Moreover, the diet of the animals must be based on the flora of the area.

PDO olive oils, DOSQ and RDO wines produced in the Prefecture of Iraklio, Crete – Four PDO olive oils (Archanes Iraklio Kritis, Viannos Iraklio Kritis, Thrapsano, Peza Iraklio Kritis), three DOSQs (Peza Iraklio, Archanes Iraklio, Dafnes Iraklio) and one RDO (Dafnes Iraklio) wines are found in the Prefecture of Iraklio on the island of Crete (Figure 1).

Regarding the PDO olive oils, two of them have not been bottled or marketed as PDOs – up to 2005 (Viannos Iraklio Kritis, Thrapsano).

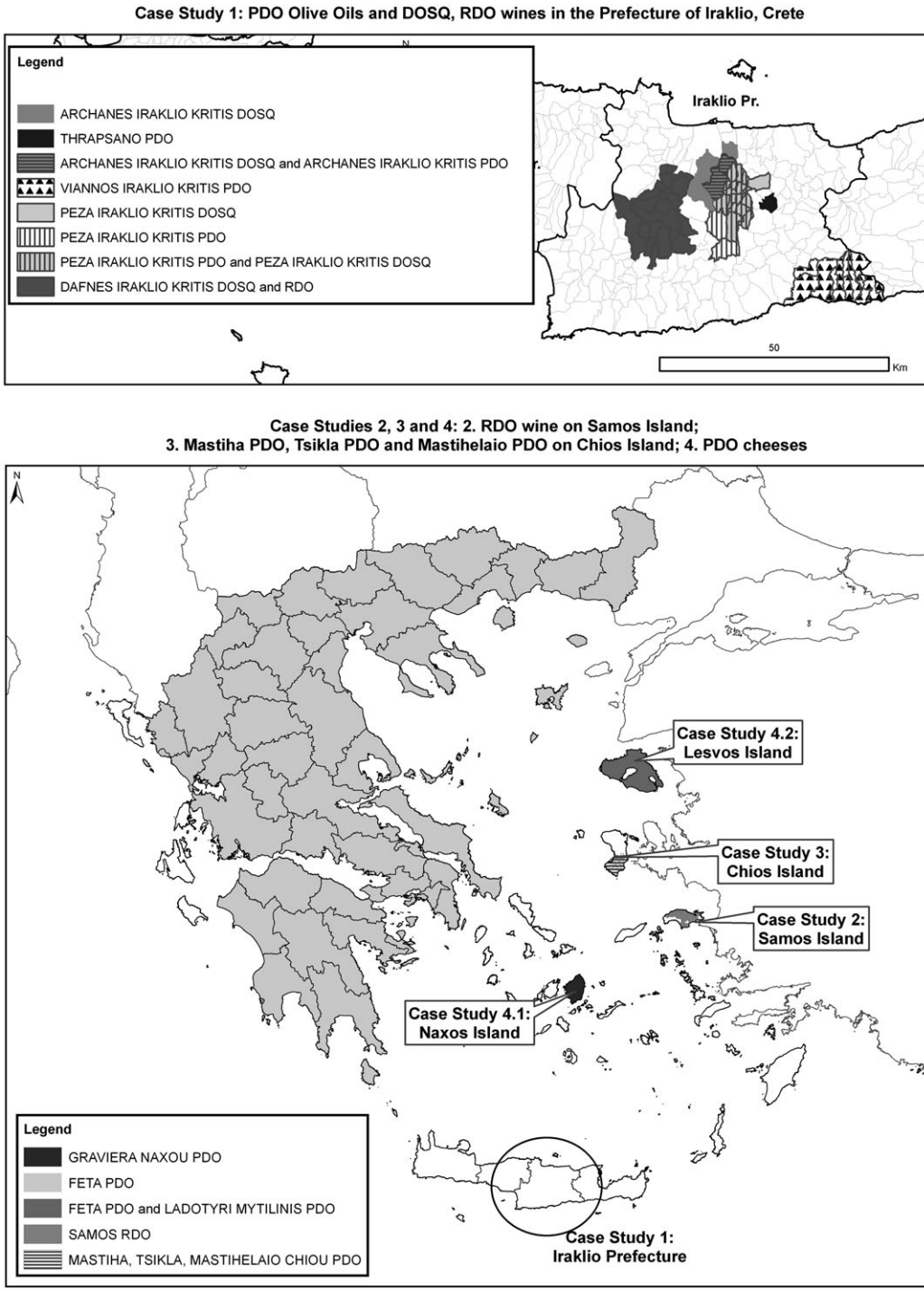

Figure 1. *Location of case study areas.*

Table 2. *Potential producers and processors of selected certified products, produced and processed quantities.*

Type of product	Product	Designation	Potential producers±	Processors+	Processors++	Production in tonnes (years)	Standardised quantity in tonnes (years)	% standardised/ total production of PDO-PGI	% standardised PDO-PGI/ total standardised
Olive oil	Thrapsano	PDO	442[5]	n.a./0[7]	2/0	650 (01)[2]	0 (02–04)[7]	0	0
	Viannos Iraklio Kritis	PDO	291[4]	n.a./0[7]	5/1	1,631 (89–91)[4]	0 (02–04)[7]	0	0
	Archanes Iraklio Kritis	PDO	1,040[2]	n.a./1[7]	2/2	1,800 (01)[2]	8.3 (02–04)[7]	0.46	100
	Peza Iraklio Kritis	PDO	2,936[4]	n.a./2[7]	11/10	5,000 (05)[9]	877.3 (02–04)[7]	17.54	n.a.
Wine	Peza Iraklio Kritis	DOSQ	1,322[2]	4[7]	–	1,491.9 (02–04)[7]	298.3 (02–04)[8]	20	n.a.
	Archanes Iraklio Kritis	DOSQ	1,039[2]	2[7]	–	114.5 (02–04)[7]	22.9 (02–04)[8]	20	n.a.
	Dafnes Iraklio Kritis	DOSQ/RDO	2,266[2]	3[7]	–	128.7 (02–04)[7]	25.6 (02–04)[8]	20	n.a.
	Samos	RDO	2,237[1]	1[1]	–	5,788 (96–02)[1]	1,039 (05)[3]	17.95	60.97
Cheese	Ladotyri Mytilinis	PDO	4,391[2]	17[1]	9	520 (01–04)[1]	520 (01–04)[1]	100	14.81
	Feta	PDO	206,326[2]	362[11]	239	81,781 (94–03)[10]	81,781 (94–03)[10]	100	n.a.
	Graviera Naxou	PDO	988[2]	3	7	909 (88–03)[10]	909 (88–03)[10]	100	63.91
Mastic	Mastiha Chiou	PDO	4,850[6]	1[1]	1	115 (98–04)[1]	115 (98–04)[1]	100	100
	Tsikla Chiou	PDO	4,850[6]	1[1]	1	186 (05)[1]	186 (05)[1]	100	100
	Mastihelaio Chiou	PDO	4,850[6]	1[1]	1	0.22 (05)[1]	0.22 (2005)[1]	100	100

n.a.: not available data
±: This figure refers to all producers that have the legal right to produce the product.
+: Authors' research. For olive oils the first value refers to the olive mills and the second value to the bottling companies.
++: Data of the register of AGROCERT (29/7/2009). For olive oils, the first value refers to the olive mills and the second value to the bottling companies. Since this register is incomplete, we provide also those data (processors, column 5) that came up as part of our own research.
1. Vakoufaris (2007).
2. Estimation based on data by the National Statistical Service of Greece (2001, Available at <www.statistics.gr.>).
3. Estimation based on data by the Union of Vinicultural Co-operatives of Samos (2005).
4. DOOR database (<http://ec.europa.eu/agriculture/quality/database/index_en.htm>).
5. Official Journal of the European Communities, C 241/12 (29.08.2001). Available at <http://eur-lex.europa.eu/en/index.htm>.
6. Vakoufaris *et al.* (2007).
7. Vakoufaris and Kizos (2008).
8. Estimation of the Directorate of Rural Development and Food of the Prefecture of Iraklio (2005).
9. PASEGES (Panhellenic of Unions of Agricultural Co-operatives). Available at <http://www.paseges.gr/portal/homePage.jsf>.
10. Ministry of Rural Development and Food (data available at <http://ec.europa.eu/agriculture/quality/database/index_en.htm>; accessed on 7 July 2009)
11. ELOG (Hellenic Milk Organisation) (2008). Available at <http://www.elog.gr/>.

Table 3. *Restrictions in the codes of practice of the products under investigation.*

Type of product	Product	Restrictions
Wine	Peza Iraklio Kritis DOSQ	The annual yield cannot be more than 12 tonnes/ha. The irrigation of the vines is not permitted. Agricultural practices not traditionally practiced are not allowed. Only the Katsifali and Mandilari varieties are permitted.
	Archanes Iraklio Kritis DOSQ	The annual yield cannot be more than 10 tonnes/ha. Only the Katsifali and Mandilari varieties are permitted.
	Dafnes Iraklio Kritis DOSQ and RDO	The annual yield cannot be more than 8 tonnes/ha. Only the Liatiko variety is permitted.
	Samos RDO	The annual yield cannot be more than 10 tonnes/ha (or more than 5.3 tonnes/ha for the natural sweet wine-grand cru). The irrigation of the vines is not permitted. Agricultural practices not traditionally practiced are not allowed. Only the Muscat variety is permitted.
Olive oil	Viannos Iraklio Kritis PDO Peza Iraklio Kritis PDO Archanes Iraklio Kritis PDO	The abatement of the olive fly happens by spraying the bait/insecticide mix from the ground or by using organic farming methods or no abatement at all takes place. The olives are collected by hitting the trees with sticks or with the use of olive-harvesting machines. Only the Koroneiki variety is permitted. The olive oil must be extra virgin.
	Thrapsano PDO	The abatement of the olive fly happens by spraying the bait/insecticide mix from the ground or by using organic farming methods or no abatement at all takes place. The olives are collected by hitting the trees with sticks or with the use of olive-harvesting machines. Only the Koroneiki variety is permitted. The olive oil must be extra virgin.
Resin	Mastiha Chiou PDO (and Tsikla Chiou PDO, Mastihelaio Chiou PDO)	Mastiha Chiou is produced from the *Pistachia Lentiscus var. Chia* tree. The abatement of insects happens by spraying from the ground or by using organic farming methods. Spraying is prohibited during the collection of Mastiha.
Cheese	Feta PDO	The milk used for the production of Feta must come from sheep and goats traditionally fed and adapted to the delimited area of production. Their diet must be based on the flora of the area.
	Graviera Naxou PDO	The milk used for the production of Graviera Naxou must come from cows, sheep and goats traditionally fed and adapted to the delimited area of production. Their diet must be based on the flora of the area.
	Ladotyri Mytilinis PDO	The milk used for the production of Ladotyri Mytilinis must come from sheep and goats traditionally fed and adapted to the delimited area of production. Their diet must be based on the flora of the area.

Archanes Iraklio Kritis PDO is bottled by just one private enterprise in very small quantities of about ten (2002–2003) to 15 (2004–2005) tonnes. During 2003–2004 the product was not bottled at all. The only PDO olive oil with a mentionable production is Peza Iraklio Kritis PDO which is bottled by two companies; one co-operative (Union of Co-operatives of Peza – UCP) and one private enterprise. The UCP, a second degree co-operative of roughly 3,000 members that produces olive oil and wine, is comprised of 19 first degree co-operatives with around 6,000 hectares of olive oil trees and a total olive oil production of 5,000 tonnes annu-

ally (in bulk). However, production of the Peza Iraklio Kritis PDO olive oil by the UCP for the periods 2002–2003, 2003–2004 and 2004–2005 was just 396, 247 and 1,505 tonnes respectively and the total production from both companies reached 1,689 tonnes during 2004–2005. Therefore, two PDOs (Viannos Iraklio Kritis, Thrapsano) have a minimal impact on their area of production, since they are not bottled and marketed as PDOs and instead treated as anonymous products. Peza Iraklio PDO olive oil is the only product bottled in a sufficient quantity to really have an economic impact on its area of production.

All four DOSQ and RDO wines are bottled and marketed. Peza DOSQ production during 2004–2005 reached 2,466 tonnes (all subsequent data refer to the same period), while production for Archanes DOSQ and Dafnes (DOSQ and RDO) was 133 and 138 tonnes respectively. However, only around 20 per cent of those quantities is bottled and marketed as QWPSRs. As far as the companies that produce the QWPSRs are concerned, there are three co-operatives, which produce 81 per cent of the aforementioned quantities, and six private enterprises (three that produce Peza DOSQ, two that produce Dafnes DOSQ and RDO and one that produces Archanes DOSQ) which produce the remaining 19 per cent. Since the greater part of the production is marketed in bulk, the remuneration of local resources is moderate.

In both cases of the olive oil and wine, the place name Peza has a greater impact when compared to the other PDOs and QWPSRs studied here, as both olive oil and wine are characterised by a greater volume of production and bottling and by a greater number of enterprises that produce them. One thing that must be mentioned is the appropriation of the PDO and QWPSR denominations by enterprises outside the area of production. For instance, one of the companies that produce Archanes DOSQ, and the only extra local actor of the aforementioned QWPSRs, is Boutaris SA, one of the best-known Greek wine-bottling companies. This appropriation cannot be considered entirely negative, since those distant actors can have a positive impact (i.e. create employment, spread the name of the product outside the region) and in many cases have the acceptance of the local actors as they provide stable market relations.

RDO wine produced on the island of Samos – According to the vineyard register of the Prefecture of Samos there are 2,554 vine-farmers in Samos and their average age is 53.7 years. There are 25 first degree wine co-operatives on Samos and the Union of Vinicultural Co-operatives of Samos (UVCS) is an obligatory and the only existing second degree co-operative, created in the 1930s to protect the reputable wine of the island; that is the sweet RDO wine that has been since marketed exclusively by the UVCS. Another privately-owned bottling company exists on the island, but it does not have access to local vines and therefore transports wine from other areas outside Samos and then bottles it. Recently, efforts to get a permit for the establishment of a private-owned winery to bottle local wine were rejected by the Prefecture of Samos.

The UVCS is a large enterprise for local standards with 97 permanent and 10 to 20 seasonal workers in 2005. The average annual production of the UVCS is around 5,000 tonnes, most of which (98% on average during the past 15 years) was marketed in bulk. Bottled Samos RDO wine for the same period was less than 1.5 per cent (since not all bottled quantities are RDO). Most of the production in bulk is exported in France and Belgium, where it is bottled as Samos RDO wine. In other words the greater part of the value added for Samos RDO wine is gained by 'outside' players. This is evident in the price difference between the bulk and bottled product in Greece: the price of Samos RDO wine in bulk was 3.21–3.38 €/lt while the price of Samos RDO bottled wine was 4.11–8.52 €/lt (2005).

Mastiha PDO, Mastihelaio PDO and Tsikla PDO produced on the island of Chios – Mastiha Chiou PDO is a resin of *Pistacia Lentiscus var. Chia* trees found only in the region of Mastihohoria, in the southern part of Chios (literally meaning Mastic villages). There are around 4,850 Mastiha farmers (professional or not) and Mastiha trees cover an area of around 1,900 hectares. Farmers are organised in 20 first degree co-operatives. The Chios Mastiha Growers Association (CMGA) is the only

second degree obligatory co-operative, solely responsible for collecting, marketing and selling the product, again, as in the Samos case study, set up in the 1930s to protect farmers and the unique product. Mastiha is sold in packaged form to other companies. The dirtiest granules of Mastiha are distilled to produce Mastihelaio Chiou and Mastic water. Moreover, Mastiha along with other ingredients (gum base, etc.) is used for the production of Tsikla Chiou. All three products (Mastiha Chiou, Mastihelaio Chiou, Tsikla Chiou) are PDOs. Mastihelaio and Mastic water are typically ingredients in small quantities to other products (sweets, pastries, spirits, cosmetics, etc.) adding taste and flavour.

The production of Mastiha fluctuates according to weather conditions (torrential rains during summertime can reduce production up to 50%). Production of Mastiha had been decreasing until a decade ago, but a reorganisation of the CMGAs' productive and marketing strategies brought the formation of MastihaShops, a network of 14 retail outlets throughout Greece and abroad that sell Mastiha and other products linked to Mastiha. With this network, the CMGA has managed to gain a greater part of the added value and to have direct contact with Mastiha consumers rather than intermediaries. This doubled farmer prices (from 38 €/kg in 1998, to 72 €/kg in 2005) and has raised the production to 165 tonnes in 2005. Production of Tsikla was around 186 tonnes, while production of Mastihelaio was 220 kilos and of Mastic water 3,500 litres (2005). This raising of farmers' prices has reignited local interest in mastiha cultivation, old fields have been cleared and young people are actively involved in it, while mastiha fields are also becoming a tourist attraction. This is clearly a case of a successful product with significant positive local impacts.

PDO cheeses – PDO cheese production in Greece is very diverse, with some being local products of small scale, while others being of national importance. Three products are briefly discussed here: a local one, Graviera Naxou PDO; one of regional importance, Ladotyri Mytilinis PDO; and one of national importance, Feta PDO.

Graviera Naxou PDO is produced exclusively on Naxos. It is one of the few Greek PDO cheeses that is produced using cow milk. There are around 2,700 sheep, goat and cattle farmers (51% of the total number of farmers on Naxos) and most of the produced milk (around 12,000 tonnes) is processed in three cheese-making units, with the largest being the Union of Agricultural Co-operatives of Naxos. The producer prices are rather low (0.4 €/kg for the cow and goat milk and 0.7 €/kg for the sheep milk during 2007–2008). The Union utilises most of the milk of Naxos, while the other two cheese-makers are family businesses that utilise their own produced milk and that from a small number of other producers. The total quantity of Graviera Naxos PDO is approximately 900 tonnes (average quantity for the period 1988–2003) which is the 12.8 per cent of all Graviera production in Greece for the same period (Table 2). An unknown part of this production is sold to four units located in Athens that pack the product in small vacuum sealed pieces and market it under the PDO denomination to large retailers. The case of the four Athens-based businesses that subtract a part of the added value is a typical case of appropriation.

Ladotyri Mytilinis PDO is produced exclusively on Lesvos. There are around 4,300 sheep and goat farmers (21.5% of the total number of farmers on Lesvos in 2001), and the produced milk is processed in 17 cheese-making units (four more that operate do not produce Ladotyri), of various sizes, with only one medium size co-operative. Small units sell all their produce on the island, typically in face-to-face SFSCs, while the two large units use many different chains to market their products, including large retailers. Cheese-makers typically produce more cheeses, such as Feta PDO, Graviera and some Kaseri PDO (the annual production of Ladotyri is approximately 520 tonnes). This quantity forms just the 3.82 per cent of the hard cheeses produced from sheep and goat milk in Greece during 1988–2003. The operation of these supply chains practically 'cuts off' farmers from the cheese products, as they are unaware of the use of their milk from the cheese-makers and receive a fixed amount of money per litre of milk that they provide to them. The price of milk is the same for all cheese-makers and has been raised

approximately five per cent in the last nine years (for the season 2008–2009 it is 0.89 €/lit), while the retail price of Ladotyri has been raised by approximately 40 per cent in the same period. Only the co-operative offers higher prices, but the payments may take several months. It seems therefore that although the product is successful, its impacts are not very positive at the local level for the primary producers, farmers.

The case of Feta PDO is entirely different. It is a very well known and established national product, with a long history of legal dispute at the European level for the right of Greek producers to use the name exclusively. Its potential producers (the exact number is unknown) are 206,326 sheep and goat farmers (77.33% of the total number of sheep and goat farmers in Greece in 2001) and 362 cheese-makers of a variety of sizes. Most of the cheese-makers are private enterprises but there are some large co-operatives as well.[8] This diversity results in very complex and diverse supply chains, from the very local to the international for the 82,000 tonnes that are annually produced (92.31% of the soft cheeses from sheep and goat milk during 1994–2003). In the Greek market, market prices differ according to the area where Feta is produced. Foreign enterprises have attempted to appropriate part of the added value of the product in co-operation with Greek cheese-makers (e.g. Milner markets *en lefko* cheese, literally meaning 'in white' produced by Greek (cow) milk at prices higher than Feta). As in the case of Ladotyri Mytilinis PDO, the supply chains 'cut off' farmers from the final product and its value. The price for their milk differs regionally, but cheese-makers control and dominate almost completely, this part of the supply chain and set the prices. Again, therefore the impacts of a successful product are not very positive for the primary producers, farmers, only that this case affects the majority of the Greek sheep and goat farmers.

CONCLUSION

This paper deals with the geography of PDO, PGI and QWPSR products in Greece. In many Greek regions there is a plethora of these products (e.g. Crete) while others (e.g. Thrace) produce very few of them. Most of these products are produced in LFAs, while many of them are found exclusively on island territories. But are these facts indications of 'alternative' agri-food geographies? If so, can these products contribute to the development of their delimited production areas?

In theory, the existence of the aforementioned certifications in the Greek agri-food products should be associated with specific production practices related to certain regions or even with the existence of a truly differentiated product. As the material presented here demonstrates, this is not the case for some of the certified products in Greece. Small delimited areas and codes of practice not radically different from one case to the other (e.g. PDO olive oils), lead to the existence of certified products which are unknown to the average Greek consumer and are not characterised by substantial differences, thus limiting their impact. This overlapping of the areas of certified products limits their effectiveness due to the inability of producers and farmers to use PDOs and PGIs as a common resource (see below) and the lack of knowledge on the side of consumers. Other products are not standardised and marketed as PDOs, PGIs and QWPSRs. This reveals an inconsistency in the Greek agri-food policy towards quality, as certain products seem to exist only 'on paper'.[9]

Geographical indications (GIs) are common resources of all actors who play a part in their production. The impact of GIs on their delimited areas depends not only on the characteristics of the product (e.g. its fame) but on the actions (e.g. remuneration of local resources, marketing) of each actor as well. This distinction is important to understand since there may be a very well known 'quality' product, which is also produced by enterprises with limited impact and contribution to the region's development. One last point concerns the type of enterprises that produce these products. The legal form of the enterprises (co-operatives or privately owned enterprises) plays an important role in the impact they have on the delimited areas. While in most cases, as our case studies demonstrate, co-operatives are large powerful enterprises characterised by inflexible management and inability to follow market changes (there are of course exceptions as the

CMGA paradigm shows), private enterprises may be small family businesses or large industrial ones. The appropriation of GIs by such large enterprises, originating from other areas, is an important problem, which we believe will grow in importance in the future especially for successful GIs. Even though these enterprises can offer different supply chains and provide access to new markets, but at the same time subtract a part of the added value of GIs, and it is not clear whether their overall impact is positive or negative. They can be positive as they can open new markets for the products and advertise them far more effectively, and negative as they gradually gain control not only of 'conventional' agri-food products but of GIs as well. All these developments raise difficulties in understanding the impact of GIs on their delimited areas. Although this impact seems to be on the positive side, it depends on the characteristics of the actors involved in their production and their capability to remunerate the reputation of GIs.

This paper presents the Greek geography of PDOs, PGIs and QWPSRs in two ways: by focusing on their delimited areas and by focusing, through specific case studies, on the enterprises which standardise and market the products. On the one hand, small (or large) and unknown (or famous) delimited areas, and on the other hand differences in the remuneration of GIs by the various enterprises (others successful, others not) have resulted in a new agri-food geography, perhaps not alternative in nature. This new geography emerges as in any case, certain areas gain an advantage over others via their linkage with specific products. Here, we have attempted to highlight some of the elements of this new geography.

Notes

1. Researchers turned also to various theories: actor network theory (Murdoch 1998); conventions theory (Goodman 2003), monopolistic competition (Moschini *et al.* 2008) and conceptions (networks ; Marsden & Arce 1995); niche markets (Ilbery & Kneafsey 1999); and social embeddedness (Sonnino & Marsden 2006) among others to fully understand quality agri-food products.
2. In areas designated as less favoured, agricultural production faces restrictions due to natural handicaps (e.g. climatic conditions, altitude, steep slopes, and low soil productivity among others).
3. According to Article 2 of the EU Regulation 510/2006 (Commission of the European Communities 2006), designation of origin and 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'. The designation of origin is linked to 'the quality of characteristics of which are essentially or exclusively due to a particular geographical environment with its inherent natural and human factors. The production, processing and preparation of the agricultural product or foodstuff takes place in the defined geographical area'. In the case of the geographical indication the agricultural product or foodstuff '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'.
4. As far as wines are concerned, they can be categorised into quality wines produced in specified regions (QWPSRs) and table wines. QWPSR wines can be categorised into designations of origin of superior quality (DOSQs), when the wines are dry and registered designations of origin (RDOs), when the wines are sweet (Commission of the European Communities 1999). The 'specified region' in the definitions is a wine-growing area or a combination of wine-growing areas which produces wines with particular quality characteristics and whose name is used to designate QWPSRs. Each specified region is demarcated, as far as possible, on the basis of the individual vineyard or vineyard plot. Such demarcation is effected by each Member State concerned and takes into account the factors which contribute towards the quality of the wines produced in those regions such as the nature of the soil and subsoil, the climate and the situation of the individual vineyard or vineyard plot.
5. All data come from the codes of practice of the products processed by the authors.
6. NUTS: Nomenclature of Territorial Units for Statistics. These products are: Thrapsano PDO, Krokees PDO, Finiki Lakonias PDO and Petrina PDO, Tsakoniki Melitzana Leonidiou PDO, Agios Mathaios Kerkyras PGI, Formaella Arachovas Par-

nassou PDO, Konservolia Rovion PDO, Syka Vravronas Markopoulou Mesogeion PGI, Kerasia Tragana Rodochoriou PDO, Cotes of Melitona DOSQ.

7. Another characteristic example is the olive oil produced in the Prefecture of Chania that can be marketed as Chania PGI, but in the areas of Apokorona and Kolymvari (both in the Prefecture of Chania) it can also be marketed as Apokoronas Chanion PDO or Kolymvari Chanion PDO.
8. For instance Neogal SA is owned by the Union of Dairy Co-operatives of the Prefectures of Drama and Kavala and employs 140 people. The company's turnover during 2007 reached 18 m€. The only PDO product that Neogal produces is Feta at around 550 tonnes per year. The prices paid for the sheep and goat milk in 2007 were 0.85 €/kilo and 0.55 €/kilo respectively.
9. Besides Viannos Irakleio PDO and Thrapsano PDO olive oils, other products not standardised or marketed as PDOs are according to the best of our knowledge Trumba Chios PDO olives, Mila Delicious Pilafa Tripoleos PDO apples, and Trumba-Ambadia Rethimno Crete PDO table olives.

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