



Collective action in the Greek agrifood sector: evidence from the North Aegean region

Collective action

Hristos Vakoufaris and Ioannis Spilanis

777

Department of Environment, University of the Aegean, Mytilini, Greece, and

Thanasis Kizos

Department of Geography, University of the Aegean, Mytilini, Greece

Abstract

Purpose – The purpose of this paper is to present the existing forms of collective action in the Greek agrifood sector and to focus on co-operatives, the dominant form of collective action in the agrifood sector of the North Aegean region.

Design/methodology/approach – The analysis is based on six contextual and behavioural conditions under which collective action may emerge.

Findings – This paper shows that very successful co-operatives, according to the six contextual and behavioural conditions, co-exist with unsuccessful ones, which are characterised by inflexibilities and inability to respond to a constantly changing market. Moreover, the legal status of some co-operatives (obligatory co-operatives) is of great interest.

Originality/value – This paper attempts to categorise existing forms of collective action in the Greek agrifood sector. Moreover, it gives information about the co-operatives of the North Aegean region, based on three research programmes that were conducted in the region.

Keywords Co-operative organizations, Greece, Agricultural products

Paper type Research paper

Introduction

Collective action can be defined as a voluntary action carried out by a group of people working towards a common goal. Collective action in the agrifood sector takes many forms, such as farmer co-operatives, co-ordinated supply chains of specialised regional or typical products and wine and olive oil routes (Lamprinopoulou *et al.*, 2006), as well as initiatives aiming to direct producer-consumer relations, initiatives offering agro-services (e.g. tourism, care facilities or agro-environmental services) and non-food initiatives (e.g. bio-energy). Brunori and Rossi (2000) claim that there are also other forms of collective action –such as the role of the family, localised socio-economic networks in which farms are embedded, which are overlooked by the modernisation paradigm. According to Birchall (2003), a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Co-operation exists when two or more actors agree through formal or informal arrangements to share information, support managerial and technical training, supply capital and/or provide market information (Polenske, 2004). Collective action has been identified as a key point of rural development (Brunori and Rossi, 2000; OECD, 1998), and the main benefits for its members are:

- resource access;
- economies of scale and scope; and



- reduced transaction and co-ordination costs (Lamprinopoulou *et al.*, 2006; Brunori and Rossi, 2000; LEADER European Observatory, 2000).

Phillipson *et al.* (2006) have pointed out that voluntary organisations must overcome the problem of free-riding in order to be sustainable.

As noted in Lamprinopoulou *et al.* (2006) collective action in the agrifood sector in Greece is under-researched. Thus, this paper aims to fulfil this gap by attaining two specific objectives. First, it examines the different forms of collective action in the Greek agrifood sector and categorizes them using a typology. Second, the paper focuses on the forms of collective action in one Greek region (NUTS II), the North Aegean. The paper examines four important agrifood products for the region: mastiha, wine, olive oil and cheese, which are produced by co-operatives (exclusively or to some extent) and one specific category of co-operatives: the women's co-operatives. The co-operatives of the region are analysed according to the key conditions for successful collective action laid down by Lamprinopoulou *et al.* (2006) in order to delineate strengths and weaknesses of the co-operatives for collective action. The structure of the paper is as follows. The next section deals with the current forms of collective action in the Greek agrifood sector. The third section presents the research method used, while the following section focuses on some case studies of collective action in the North Aegean region. The penultimate section illustrates the analysis of the case studies according to the contextual and behavioural conditions for successful collective action and, finally the last section draws some conclusions.

Forms of collective action in the Greek agrifood sector

The current forms of collective action in the Greek agrifood sector at present can be categorised as:

- first and second-degree co-operatives;
- interprofessional organisations referring to types of products (i.e. olive oil, wine) rather to specific products;
- producer groups and associations; and
- other forms of collective action.

Co-operatives

There are 6,350 first-degree (with 746,000 members) and 114 second-degree agricultural co-operatives in Greece. The first-degree co-operatives trade farm input supplies for their members. Moreover, they provide other services, such as handling of paperwork relating to EU subsidies. Many of the first-degree co-operatives are practically inactive, since their annual turnovers are below €100. Yet, they continue to operate mainly for the election of representatives who have an active role in shaping the co-operative movement leadership. Second-degree co-operatives are engaged in the processing and standardisation of agricultural products as well as in their trade and marketing. They handle EU subsidies and trade farm input supplies and machinery. Some second-degree co-operatives own super-markets (mostly of local range) through which they trade part of their products. Second-degree co-operatives are characterised by significant differences as far as their efficiency is concerned. On the one hand, there are co-operatives such as the Union of Agricultural Co-operatives of Sitia (UACS),

which has an annual turnover of €35,000,000 and is responsible for half of Greece's exports of bottled olive oil (4,500 tons) (Markou, 2005); and, on the other, there are co-operatives with large levels of accumulated debt. According to Dodopoulos (2006), the overall debt of Greek co-operatives reaches €840,000,000. Trying to explain this debt Papadimoulis (2006), claims that the formation of co-operatives "from above" (that is by the Greek State) and not "from below" (that is, as an effect of an organised agricultural movement) is partly responsible for their bad financial situation.

Interprofessional organisations

As mentioned earlier, the existing interprofessional organisations refer to types of products but not to specific products. Furthermore, most of them (seven out of eight) are national ones[1]. Interprofessional organisations are a recent development in Greece, since their formation was decided by the Greek State in 1999 (*Government Gazette*, 1999). Their goals and objectives include: planning for and applying strategies to the development of their sectors; promoting agreements among their members and forming interprofessional regulations of operation; strengthening those measures that relate to food safety and adapting to market and consumers needs; promoting and protecting organic products, PDOs and PGIs[2]. Beside these interprofessional organisations, there are at least two more under way[3]. What is worth mentioning is the status of EDOVP. The companies that certify organic farms have been excluded from the organisation and members of EDOVP claim that only those who are involved in the production of organic products can participate in it. EDOVP has been set up hastily in order to manage an amount of about €2,000,000 which is approximately the subsidy of organic olive oil producers (Alexandris, 2006). An interesting detail is that there are no interprofessional organisations for the PDO and PGI products as in other EU countries.

Producer groups and associations

Producer groups and associations are defined by EU Regulation 952/1997. Producer groups are set up to jointly adapt the production and output of producers who are members of such groups to market requirements; they consist of individual producers or individual producers and organisations. Producer associations consist of recognised producer groups and pursue the same objectives as those groups, but on a larger scale (EU Regulation 952/1997, Article 5). Nowadays, the exact number of producer groups and associations in Greece is unknown, but it has been rapidly increasing. Producer groups and associations are considered as the best means for common investment in equipment for cultivation, manufacture and marketing of their members' products. Some are very successful in economic terms and have even managed to revitalise whole areas with their success (see Kokkinos *et al.*, 2003 for an example of kiwi production). Their most important difference with co-operatives seems to be the fact that producer groups are spontaneous collective actions of producers that want either to by-pass the inflexibility and power struggles of co-operatives, or to work with existing co-operatives, or to provide a common solution to a shared problem of producers in an area. The only drawback in their operation is the reduced farmers' control and involvement as the scale of the organisation increases, something similar to the situation of co-operatives.

Other forms of collective action

There are also other forms of collective action that do not correspond to one of the aforementioned categories. Recently the formation of a non profit-making company for the management of Cretan horticultural production has been decided upon in Crete. This company is to manage the horticultural production of its members under the common denomination Label Crete (*Agrenda*, 2006).

It is possible that in other areas of Greece such initiatives also happen, but it is very difficult to have an overall picture of the exact situation. For example, wine routes (www.greekwine.gr/frames/routes ; www.wineroads.gr/en) (Greek Wine Routes, 1998; Wine Roads of Northern Greece, 1993) are also a recent form of collective action. According to Tzimitra-Kalogianni *et al.* (1999) wine routes can provide information about typical wines to consumers. However, it is very early to estimate their actual impact on rural development.

What is conspicuous from this brief analysis is that collective action in Greece as far as the co-operatives are concerned is low. This coincides with the opinion of Bianchi (2001, p. 117) that what is needed in collective action is “an ingredient that is said to be missing in Southern society: a natural propensity of economic agents to co-operate”. However, other numerous and diverse forms of collective action have emerged, but it is too soon to access their actual extent and impact.

Research method

Lamprinopoulou *et al.* (2006) has identified six conditions under which collective action may emerge, namely: type of market; social cohesiveness; institutional support; market orientation; co-operative spirit; presence of an initiator. The first three conditions are contextual and refer to socio-economic contexts in which agrifood SMEs operate, while the other three are behavioural conditions and refer to the actors’ aptitudes, dispositions and interactions.

This paper presents evidence that refers to the collective action in the agrifood sector of the North Aegean region (Greece) based on the aforementioned conditions for successful collective action. Two research programmes (NAIAS and Euromed-Heritage)[4] and one PhD dissertation (Vakoufaris, in progress) are the sources of information for the collective actions that appear in the agrifood sector of the North Aegean region. The Programme NAIAS dealt with innovation in the SMEs of the agrifood sector. Data were collected with a questionnaire for 98 out of the 119 enterprises (cheese making units, women’s co-operatives, olive oil mills, olive oil bottling companies, wineries etc.). Therefore, 17.6 per cent of the enterprises did not respond. Thirty two of these enterprises were co-operatives and data were collected for all of them. The Programme Euromed–Heritage dealt with traditional know-how and ways of production in olive oil enterprises (mills and bottling companies) and cheese making units. Forty one enterprises (olive oil mills, olive oil bottling companies and cheese-making units) were surveyed in total (non-response 10.8 per cent) with the use of a questionnaire. Twelve of these were co-operatives and data were collected for all of them. Both researches took place in 2002. The PhD dissertation deals with specific agrifood products in the North Aegean region and their contribution to the sustainable development triptych: economy, environment, society. There are four case studies on three islands of the North Aegean region, that is PDO Ladotyri cheese and PGI Lesvos olive oil on Lesvos island, VQPRD[5] Samos wine on Samos island and Mastiha PDO

resin on Chios island. Two of these products (VQPRD Samos, Mastiha PDO) are exclusively produced by co-operatives. A research with questionnaires to all cheese-making units, wineries, olive oil bottling companies and to other key informants took place in 2005. Although the focus of the Programmes and the PhD Dissertation is not collective action *per se*, an insight to the dominant form of collective action in the region (i.e. the co-operatives) was gained.

Collective action in the agrifood sector of the North Aegean region

What follows is an analysis of four products of great value for the North Aegean region in terms of land use, social value (number of farmers) and economic importance, as well as an analysis of a specific category of co-operatives: the women's co-operatives. Since women's co-operatives produce a great variety of products, we employ an analysis at the product level for most cases but at the co-operative level for women's co-operatives. Moreover, by focusing on products of all other cases, we can present the overall picture of production modes (farmers, manufacturing units, etc.) and the actual power and extent of co-operatives in their production. It must be mentioned that other forms of collective action in the North Aegean region are non-existent up to now.

The North Aegean region is an island region consisting of three Prefectures and ten inhabited islands (Lesvos, Chios, Samos, Limnos, Ikaria, Agios Efstratios, Psara, Oinousses, Fournoi, Thimaina) (Figure 1). The region stretches over 3,836 km², with a total population of 200,066 (2001) and a population density of 52.1 inhabitants/km² (82.9 inh/km² for Greece). The region's GDP per capita is 91 per cent of the national average

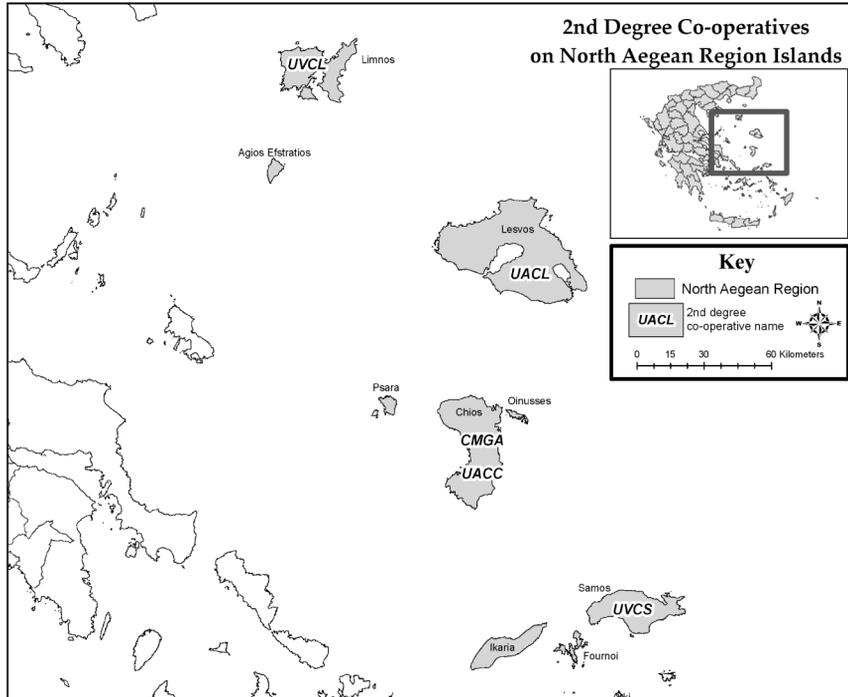


Figure 1.
Second degree
co-operatives in the North
Aegean region

(2001 data), against 79 per cent in 1992. The main agricultural land uses in the region are groves (olive groves on Lesbos and Samos islands and mastiha and citrus groves on Chios island), vineyards (on Limnos and Samos islands) and grazelands (on all islands), while arable land is important only on Limnos. Sheep and goat farming is also of great importance for Lesbos, Limnos, Samos, Ikaria and Chios. The main food and drinks products of the region are mastiha, wine, olive oil, cheeses, and ouzo. Ouzo is not produced at all by co-operatives in the region and it is not considered in our analysis.

Mastiha

Mastiha is a resin of *Pistacia Lentiscus var. Chia* trees that are found in the southern part of Chios island. Mastiha is exclusively produced in the region of Mastihohoria (literally Mastiha villages). There have been attempts to grow the trees elsewhere but although they can grow in locations with similar climates, the trees fail to produce the resin. There are about 4,850 farmers (this figure includes all farmers professional or not), while Mastiha trees cover an area of 1,900 hectares. Farmers are organised in 20 first-degree co-operatives while there is only one second-degree co-operative: the Chios Mastiha Growers Association (CMGA). The CMGA is an obligatory co-operative, meaning that by law it is solely responsible for collecting (from the first-degree co-operatives) and selling Mastiha. Farmers are allowed to keep a small quantity of Mastiha for personal consumption but they have to sell the rest of their production to CMGA, since any other trading of the product is illegal. Other companies who use Mastiha for the production of foodstuff, chewing gums, skin-creams, and pharmaceuticals buy the product from Mediterra SA, which is a subsidiary company of CMGA. Therefore, the production of Mastiha is an exclusively co-operative business. *Mastiha Chiou* is a PDO product and can be used either in its pure form or as an ingredient in other PDO products (*Tsikla Chiou PDO* is a chewing gum with Mastiha PDO being just one of many ingredients; *Mastihelαιο Chiou PDO* is an essential oil that is distilled from the dirtiest granules of Mastiha) (see Table I).

Wine

There are 6,224 vine producers (2001 census data) in the North Aegean region, while vineyards cover an area of 2,215 hectares. 57.5 per cent of the producers and 81.6 per cent of the vineyards are to be found on two islands: Limnos and Samos. There are 36 first-degree co-operatives and one second-degree co-operative on Limnos (Union of Vinicultural Co-operatives of Limnos (UVCL)) (2006), 25 first-degree co-operatives and one second-degree co-operative on Samos (Union of Vinicultural Co-operatives of Samos (UVCS)) (2006). There are also 12 wineries throughout the region.

Limnos and Samos are characterised by different production systems. On Samos island the UVCS is an obligatory co-operative of the same form as that of the CMGA on Chios and therefore throughout the island there are only two wineries that belong to the UVCS. Other bottling companies on the island do exist, but they do not have access to the local vines and they do not bottle local wine. On the other hand, on Limnos there are five private-owned wineries since the UVCL is not an obligatory co-operative and due to the fact that its importance has been decreasing during the last decade. In 1995 the UVCL farmers produced 4,843 tons of wine, or 96.1 per cent of the total wine produced on the island, while the rest 96 tons were produced by private-owned wineries (Monokrousos, 2004). In 2004 though, the UVCL farmers produced just 2,933

Product	Island	Number of farmers	First-degree co-operatives	Second-degree co-operatives	Manufacturing co-operative companies	Existence of other manufacturing companies	Main products
Mastiha	Chios	4,850	20	1 (The CMGA – obligatory co-operative)	The CMGA	No	Mastiha PDO, Tsikla PDO, Mastihelaito PDO
Wine	Limnos	1,343	36	1 (The UVCL)	The UVCL	Yes (5)	Limnos VQPRD, wine in bulk
	Samos	2,237	25	1 (The UVCS – obligatory co-operative)	The UVCS (two wineries)	No	Samos VQPRD, wine in bulk
	Lesvos	921	–	–	–	Yes (1)	Wine from organic grapes, local wine
	Ikaria	845	–	–	–	Yes (3)	Local wine
Olive oil	Lesvos	14,000	62	1 (The UACL)	UACL, co-operative of Stipsi	Yes (6)	Lesvos PGI, olive oil in bulk
	Samos	5,000	7	–	By the UVCS (in small quantities)	No	Samos PGI, olive oil in bulk
	Chios	4,000	17	1 (The UACC)	–	No	Olive oil in bulk
	Ikaria	1,000	7	–	–	No	Olive oil in bulk
Cheese	Limnos	1,979	1	–	–	Yes (4)	Kalathaki PDO, Feta PDO
	Lesvos	8,489	15	–	Co-operative of Mantamados, co-operative of Eresos	Yes (19)	Feta PDO, Kaseri PDO, Ladotyri PDO
	Chios	954	1	–	Agricultural co-operative of Chios	Yes (1)	Graviera, Mastelo, white cheese
	Samos	687	–	–	–	Yes (1)	White cheese
	Ikaria	1,032	–	–	–	Yes (1)	Kalathoura
Women's co-ops	Limnos	–	1	–	–	–	Pastries, sweets, embroideries
	Lesvos	–	9	–	–	–	–
	Chios	–	1	–	–	–	–

Table I.
Products and co-operatives per island in the North Aegean region

tons of wine (85.4 per cent) while the rest of the production reached 425 tons (14.6 per cent). On Ikaria and Lesvos islands the wineries are small family businesses that use local grapes as raw material. To sum up, the two co-operatives on Limnos and Samos handle the 95.7 per cent of the production of grapes (Laboratory for Local and Insular Development, 2003), although a large part of the production is not bottled but sold in bulk to other Greek or foreign bottling companies.

Olive oil

There are about 24,000 olive oil producers in the North Aegean region (2001 census data) and olive groves cover around 60,000 hectares[6]. The average production of olive oil in the region for the period 1991-2005 is 19,359 tons/year of which 80.9 per cent (15,665 tons) are produced on Lesvos, 5.1 per cent (989 tons) on Chios and 14.0 per cent (2,705 tons) on Ikaria and Samos islands. There are 107 olive mills (71 on Lesvos, 14 on Chios, 13 on Samos and 9 on Ikaria) of which 44 are co-operative mills (41 on Lesvos and 3 on island). Moreover, there are nine bottling companies of which three are co-operatives.

On Lesvos there are 62 first-degree co-operatives and 1 second-degree co-operative (Union of Agricultural Co-operatives of Lesvos (UACL)), while on Chios 17 first degree co-operatives and one second-degree co-operative (Union of Agricultural Co-operatives of Chios (UACC)) are to be found. On Samos there are seven first-degree co-operatives besides the UVCL (which has an active role in the bottling of olive oil). Some of these co-operatives are "mixed" ones, meaning that they are not only agricultural but also livestock co-operatives. Finally, on Ikaria there are seven first-degree co-operatives. On Ikaria, Chios and Samos olive oil is bottled only in minor quantities (just 20 tons by the UVCS in 2002, Laboratory for Local and Insular Development, 2003) and it is consumed by locals or sold in bulk form. The major bottling activity happens on Lesvos (2,185 tons in 2005) by the UACL (1,203 tons or 55.0 per cent), the first-degree co-operative of Stipsi (90 tons or 4.1 per cent), and the other 6 private-owned companies (892 tons or 40.8 per cent) (Vakoufaris, in-progress).

Cheese

There are 13,294 sheep and goat farmers (2001 census data) in the North Aegean region. 63.8 per cent of them (8,489) are located on Lesvos and 14.8 per cent (1,979) of them on Limnos. This concentration is also evident in the number of animals. Out of 502,598 sheep and goats in the region, 69.1 per cent (347,473) are to be found on Lesvos and 15.7 per cent (79,197) on Limnos. There are 17 livestock co-operatives, of which 15 are located on Lesvos. Three of these co-operatives manufacture cheese products, while the rest sell their milk to private-owned cheese making units. There are 29 cheese making units in the region (2005) most of which are on Lesvos (Vakoufaris, in progress). As mentioned earlier, only three of the cheese making units are co-operatives (two on Lesvos and one on Chios) and they utilise just 3,160 tons (9.5 per cent) of the 33,181 processed tons of milk in the region (Laboratory for Local and Insular Development, 2003). The co-operative units produce a variety of cheese including PDOs (e.g. *Feta PDO*, *Kasari PDO*, *Ladotyri PDO*) and other products (e.g. *Graviera*).

Women's co-operatives[7]

There are 11 women's co-operatives in the North Aegean region (2003). Most of them (nine) are located on Lesvos island. Although the co-operatives may have an average of

28 members, their active members are only 12 on average. Therefore, only a small part of the co-operatives' members plays an active role mainly due to lack of time, lack of interest and interpersonal problems. The majority of women's co-operatives provide food products, mainly pastries and sweets, while two of them also produce embroideries and one of them ceramics. As far as the marketing of the products is concerned, four of the co-operatives sell their products only at local markets, whereas five of them sell them at extra-local markets as well. Of these five co-operatives, four distribute only a small amount of their products to the extra-local markets[8] (15 per cent on average) and the remaining one the majority of its products (60 per cent). Most of the co-operatives run sales-shops located in co-operatives' facilities. The co-operative of Limnos has two sales-shops in the main settlement of the island, Myrina, and one in another settlement, Moudros. In contrast with the co-operative of Limnos, none of the nine co-operatives of Lesvos run sales-shops in the main urban center of the island, Mytilini. They rather sell their products to small, unspecialised stores (bakeries, groceries etc.) in the market of Mytilini. As it becomes conspicuous, women's co-operatives may have different market orientations.

Analysis of successful collective action according to the contextual and behavioural conditions

Contextual conditions

As mentioned above, in the case of Mastiha the type of market is a monopoly (see Table II). Nowadays, there is a high profit margin. Nevertheless, in the previous decade, there were many problems due to the accumulated debt of the CMGA and its inability to valorise a highly specific (in fact unique) product such as Mastiha. There are some actors (producers and traders) who question the obligatory status of the CMGA, and trade part of the production illegally. However, this phenomenon has been overcome by the CMGA by giving higher prices to Mastiha farmers. There has been an increase of 89.4 per cent in the price of Mastiha during 1998-2004. The annual turnover of the CMGA has reached €13,761,000, showing an increase of 92.4 per cent during 1998-2004. Despite the attempts made by some farmers to trade part of their production illegally, social cohesiveness is strong and the institutional support is also high both at local and national level. According to EU Regulation 1346/2005, Mastiha has been one of the five Greek products selected among EU food products to be promoted to third countries during 2005.

In the case of wine co-operatives, the UVCL and the UVCS show tremendous differences. First of all, they operate under a different legal status since the UVCS is an obligatory co-operative (monopoly). Overall, the UVCS is more successful in financial terms. In 2002, the UVCS producers were paid €0.88/lit, while the UVCL producers just €0.35/lit. The UVCS is characterized by strong ties to the French consumers. Although exports to France refer just to bulk products, the prices achieved are higher than those of the UVCL producers. Social cohesiveness is strong in the UVCS case but weak in the UVCL case. During the last three years, the UVCL has been dealing with many problems; such as how to attain good prices and promote its products to a wider market. In 2005, producer prices fell at €0.20/lit and many farmers did not even bother to harvest their production. It is worth noting that institutional support is weak in both cases.

In the case of olive oil, the producers, after the olives have been pressed and the olive oil has been produced, are free to sell their product to private-owned bottling companies, other intermediaries who export it in bulk form (mainly to Italy), or to first-degree

Table II.
Contextual and behavioural conditions for successful collective action in the case studies

	Mastiha	Olive oil	Wine	Cheese	Women's co-ops
Type of market	Monopoly, high profit margins, differentiation of Mastiha products	Perfect competition. Small differences in prices between the different "qualities" of olive oil	Monopoly (Samos) and Oligopoly (Limnos). High profit margins for UVCS and private-owned wineries. Low profit margins for UVCL	Oligopsony. Higher profit margins for smaller cheese making units	Perfect competition. High profit margins for the co-operatives but also for the other (unspecialised) stores who sell the co-operatives' products
Social cohesiveness	Strong	Weak	Strong (UVCS), weak (UVCL)	Weak	Weak
Institutional support	Strong	Weak	Weak	Weak	Strong
Market orientation	Yes	No	Yes for UVCL	No	No
Co-operative spirit	High. Yet the co-operative is obligatory	Low	High in the case of UVCS (obligatory co-operative). Low in the case of UVCL	Low. Most co-operative cheese making units were shut down	High among active members, low between co-operatives
Existence of initiator	Yes, specialized personnel	No	Yes on Samos island (UVCS), no on Limnos island (UVCL)	No	No

co-operatives. First-degree co-operatives either sell their product to exporters or, in the case of Lesvos, to UACL who bottles some part of the production and exports the rest in bulk form. From a legal point of view, all first-degree co-operatives of Lesvos are not permitted to act as bottling companies since the UACL is the only lawful co-operative bottling company. However, the first-degree co-operative of Stipsi bottles and trades (illegally but with the UACL's knowledge and tolerance) a part of its production. Social cohesiveness is low since on the one hand the overall picture of the sector is "every man for himself"; and on the other hand the institutional support is low and not targeted to specific companies or specific areas of production.

In the case of cheese, the picture is more or less the same as in olive oil. Livestock producers are either organised at first-degree co-operatives or they operate on their own, selling their product to private-owned cheese making units. First-degree co-operatives can either produce their own cheese products or act as intermediaries and sell their milk to those private-owned companies which give the best price. A few years ago, there were more co-operative cheese making units but their inability to follow a hard policy on those producers that mixed their sheep and goat milk with cow milk or water, and trade their products efficiently resulted in their shutdown. There are only three co-operative cheese making units nowadays, and not always do they offer higher milk prices than private owned enterprises. Social cohesiveness is low; the three larger private-owned companies of Lesvos utilize the 58.7 per cent of milk and it is fair to say that they have formed an oligopsony. Profit margins are higher in the case of smaller cheese making units. This loss for the larger units is partly compensated by the quantities of cheese products, which are sold (Kizos *et al.*, 2003).

Finally, the women's co-operatives seem to have been flourishing in numbers in the last ten years. In many cases, they are characterized by interpersonal problems, thus showing weak social cohesiveness. Their active members are few and although the institutional support is high, the members of the co-operatives are unable to fully realize their new roles as businesswomen. Many co-operatives show signs of what is called "the syndrome of state subsidy" and are very reluctant to invest their own money back to the co-operatives. Others are very successful and have provided reliable and well-paid local employment to young women, an accomplishment in itself considering the type of employment that is usually available to women in remote rural areas. In economic terms, most of the co-operatives perform well.

Behavioural conditions

Through its subsidiary company Mediterra SA and its network of shops (MastihaShops: eleven shops in six urban centres of Greece and expanding worldwide to Middle East where most of the product is sold, Europe, the US and Australia) the CMGA has initiated an effort to gather information about end-users of the Mastiha products for the last five years. Referring to the co-operative spirit of the CMGA actors may be an oxymoron since the CMGA is an obligatory co-operative, while other competitive actors rely on it to buy Mastiha and other by-products. The successful economic performance of the CMGA during the last years and the increase in the price of Mastiha has resulted in a renewed interest among farmers for its production and for the activities of Mediterra SA and the CMGA in general. The initiator for the successful course of the CMGA is the specialised personnel of the CMGA (e.g. managers, agriculturalists), who have been recruited during the last five

years. According to the specialised personnel, the malaise of the CMGA was due to the fact that the CMGA was partly cut-off from the farmers who viewed the CMGA not as a co-operative company but as a kind of privately owned company which was not run by “them” but by “others”.

The UVCS has financed a couple of researches in marketing of its products and the collection of information about the end-consumers. Yet, this effort has been partial and fragmented. However the UVCS is in constant effort to promote its VQPRD wines, and has recently started producing wines from organic grapes. It should be mentioned that the UVCS is also an obligatory co-operative, a fact that gives hard time to the involved partners to answer straightforwardly questions about the existence of the co-operative spirit. Yet, the UVCS manages to achieve good prices in hard times for the whole wine sector, something which is greatly appreciated by farmers. The UVCL’s many financial problems have a great impact on farmers and on the co-operative’s course in general. The production of VQPRD wines and wines from organic grapes is not enough for the survival in a highly competitive environment, and the current administration seems unable to overcome the difficulties.

In the case of olive oil the co-operative spirit is low. The workers of co-operative mills have even claimed that they deliberately grade lower the quality of their farmers’ olive oil so to pay less money to them. Then, by selling the olive oil in its real, higher quality to other actors, they make an extra profit. The UACL, which is the main actor in the olive oil business in the North Aegean region, is not characterised by market orientation. It manages to bottle just 24.5 per cent (1,203.4 tons; average figure for the period 1995-2004) of the existing quantity of olive oil (4,915.2 tons; average figure for the period 1995-2004). The sector is not characterised by any initiators since the UACL is unable to lead the way towards high added value products, unlike some small private enterprises on the island.

The co-operative spirit is also low in the case of cheese making units. The continuous shutdown of the co-operative units, their inability to operate as businesses in a free market and their strategic choice to actually hire out their machinery and their amount of milk to private owned companies and act as middlemen for the achievement of better prices, is the existing picture of the co-operatives in the sector. The co-operative units do not show an organised market orientation but rather a trial-and-error tactic. This is also the case even for the larger in size privately owned companies.

There have been no planned and coordinated efforts to gather information about end-users by the women’s co-operatives. As mentioned above, the members of the co-operatives and the active members are two separate things. The co-operative spirit is high only among active members. There is not any kind of collaboration between the co-operatives while the Prefecture’s Development Company (AENAL) runs the only initiative of collective marketing of the co-operatives’ products in Lesvos (LesvoShops, a chain of shops, which mainly trades local products).

Conclusions – discussion

The dominant form of collective action in the North Aegean region is the co-operatives. The identified contextual and behavioural conditions for successful collective action are very different in the case studies presented. On the one hand, the CMGA is the co-operative, which fulfils most conditions for successful collective action. The co-operative spirit is high, the specialized personnel managed to overcome the

inefficiencies of the past and Mediterra SA is used in order to obtain more information about the end-consumers. The social cohesiveness and institutional support is strong and the type of market is a monopoly.

On the other hand, there are co-operatives, such as the UVCL and the UACL, which are characterised by the usual inflexibilities of co-operatives: unspecialised personnel at key positions, inability to make quick decisions and respond to a constantly changing market, inability to produce manufactured products, to market and differentiate the manufactured products and achieve good prices etc. Between the two cases lies the UVCS, a monopoly in itself, which is characterised by a strong social cohesiveness, a high co-operative spirit, but also low institutional support. Therefore, the co-operatives of the region form a spectrum of successful collective action with the CMGA being the most successful and the UVCL and the UACL the less successful.

Our case studies show that besides the six aforementioned conditions for successful collective action, the legal status of co-operatives in Greece is also very important. The two most successful co-operatives in the North Aegean region are obligatory co-operatives. This peculiar legal status is, on the one hand, a safety net but, on the other hand, can endanger the future of the co-operatives. In two cases (olive oil, wine on Limnos island) small privately owned companies flourish in numbers and constitute an increasing size of the market. In one case (cheese products), privately owned companies constitute the greater part of the market. Will this be the case for Mastiha and Samos' VQPRD wines too, if the legal status of the CMGA and the UVCS changes in the future?

The CMGA is an example of the tremendous potential of Greek co-operatives. In five years, the CMGA managed to reverse the negative trends in the development of the co-operative and to diffuse part of its profits to Mastiha farmers. Moreover, the UVCS shows promising signs as far as the impact on farmers is concerned. However, these two co-operatives are the exception to the rule of inflexible co-operatives that are unable to respond to the needs of consumers and to adopt the right marketing strategies for the best remuneration of their, in most cases, highly qualitative products.

Concluding, the findings of this study have some broader implications for the agrifood sector in the EU generally. They seem to indicate that the type of collective action is of great importance. Co-operatives, and especially second-degree ones with many members, are laden with inflexibilities, have slow decision making processes and individual members-farmers have limited control over these decisions. The most successful ones attempt to by-pass these inflexibilities by creating different development means that are able to compete with private enterprises. At the same time, smaller co-operatives and producers' groups are more flexible and can adapt faster and more efficiently to market pressures and demand. Here, it seems that even the exclusive exploitation of resources that the obligatory co-operatives of the region are armed with, is not enough for success. But, even the obligatory co-operative with the bigger problems is in a better financial and production condition than the rest of the big co-operatives who see more and more of their resources and products being appropriated by private enterprises. This can be a lesson, especially for Southern EU countries, where the State is strongly in favour of such big co-operatives.

Notes

1. National Interprofessional Organisation of Olive Oil and Olives (EDOEE), National Interprofessional Organisation of Vines and Wines (EDOAO), National Interprofessional

Organisation of Fruit-bearing Trees and Horticultural Plants (EDOO), National Interprofessional Organisation of Honey and Beehive Products (EDOMK), National Interprofessional Organisation of Tobacco (EDOK), National Interprofessional Organisation of Aviculture (EDOP), National Interprofessional Organisation of Organic Products (EDOVP), Interprofessional Organisation of Vines and Wines of Crete (DOAOC).

2. PDO: Protected Designation of Origin, PGI: Protected Geographical Indication.
3. National Interprofessional Organisation of Milk and Milk Products (EDOGPG), National Interprofessional Organisation of Corinthian Currants (EDOKS).
4. Programme NAIAS (North Aegean Innovative Actions Support) (scientific responsible Ioannis Spilanis, University of the Aegean) and Programme Euromed-Heritage (scientific responsible Theodosia Anthopoulou, Panteion University).
5. Vin de Qualité Produit dans une Région Déterminée.
6. The National Statistical Service of Greece does not collect data about olive groves (and olive oil producers) separately but for all tree plantations (and tree producers) together. Olive groves in the North Aegean region are very important. For instance, on Lesbos island olive groves comprise the 96 per cent of the area of tree plantations. The total number of tree farmers in the North Aegean region (2001) is 29,328 and tree plantations cover an area of 62,335 hectares.
7. This section is based on Vakoufaris *et al.* (n.d.).
8. By extra-local markets we mean the two major Greek urban centers: Athens and Thessaloniki.

References

- Agrenda (2006), "Label Crete' on the finishing line", *Agrenda*, Saturday 7 October (in Greek).
- Alexandris, P. (2006), "The organic pie of . . . euros", *Agrenda*, Saturday 14 October (in Greek).
- Bianchi, T. (2001), "With or without co-operation: two alternative strategies in the food-processing industry in the Italian South", *Entrepreneurship & Regional Development*, Vol. 13, pp. 117-45.
- Birchall, J. (2003), *Rediscovering the Cooperative Advantage: Poverty Reduction through Self-help*, International Labour Office, Geneva.
- Brunori, G. and Rossi, A. (2000), "Synergy and coherence through collective action: some insights from wine routes in Tuscany", *Sociologia Ruralis*, Vol. 40 No. 4, pp. 409-23.
- Dodopoulos, S. (2006), "Co-operatives at a critical point", *Imerisia*, Wednesday 19 April (in Greek).
- General Secretariat of National Statistical Service of Greece (2001), *Statistical Data/Population Census 2001*, National Statistical Service of Greece, Pireus.
- Government Gazette (1999), "Law 2732 regarding interprofessional organisations", A154, *Government Gazette*, Athens.
- Greek Wine Routes (1998), web page, available at: www.greekwine.gr/frames/routes (accessed 2 November 2006).
- Kizos, T., Vakoufaris, H., Koulouri, M. and Spilanis, I. (2003), "Less favoured areas, specific character products and rural development: short cheese supply chains in the North Aegean Region, Greece", paper presented at the 20th Biennial Conference of the European Society for Rural Sociology, Institute of Technology, Sligo, 18-22 August.
- Kokkinos, P., Kizos, T. and Sofoulis, K. (2003), "Economic and environmental evaluation of farm integrated management: the case of kiwi production farms in Pieria, Greece", paper presented at the 8th Conference on Environmental Science and Technology, Limnos, 8-10 September.

-
- Laboratory for Local and Insular Development (2003), "Local food products and beverages", Programme NAIAS (North Aegean Innovative Actions Support), Laboratory for Local and Insular Development, University of the Aegean, Department of Environment, Mytilini (in Greek).
- Lamprinopoulou, C., Tregear, A. and Ness, M. (2006), "Agrifood SMEs in Greece: the role of collective action", *British Food Journal*, Vol. 108 No. 8, pp. 663-76.
- LEADER European Observatory (2000), "Marketing local products: short and long distribution channels", Rural Innovation Dossier No 7, LEADER European Observatory, Brussels.
- Markou, A. (2005), "Greek olive oil: a rough diamond", *To Vima*, Sunday 3 July (in Greek).
- Monokrousos, T. (2004), "Economic analysis of the production of traditional products on Limnos island", unpublished MSc thesis, Department of Agricultural Economics and Rural Development, Agricultural University of Athens, Mytilini (in Greek).
- OECD (Organisation for Economic Co-operation and Development) (1998), *Co-operative Approaches to Sustainable Agriculture*, OECD, Paris.
- Papadimoulis, D. (2006), "Powerful co-operatives: the only means of protection for farmers", *Agricultural Co-operation*, April (in Greek).
- Phillipson, J., Gorton, M. and Laschewski, L. (2006), "Local business co-operation and the dilemmas of collective action: rural micro-business networks in the North of England", *Sociologia Ruralis*, Vol. 46 No. 1, pp. 40-60.
- Polenske, K. (2004), "Competition, collaboration and cooperation: an uneasy triangle in networks of firms and regions", *Regional Studies*, Vol. 38 No. 9, pp. 1029-43.
- Tzimitra-Kalogianni, I., Papadaki-Klavdianou, A., Alexaki, A. and Tsakiridou, E. (1999), "Wine routes in Northern Greece: consumer perceptions", *British Food Journal*, Vol. 101 No. 11, pp. 884-92.
- Vakoufaris, H., Kizos, T., Spilanis, I. and Zacharaki, A. (n.d.), "Women's cooperatives and their contribution to the local development of the North Aegean Region, Greece", *Journal of Rural Cooperation* (in press).
- Wine Roads of Northern Greece (1993), web page, available at: www.wineroads.gr/en (accessed 2 November 2006).

Further reading

- Council of the European Union (1997), "Council Regulation No 952/97 EC of 20 May 1997 on producer groups and associations thereof", *Official Journal of the European Communities L 142*, 2 June.
- Vakoufaris, H. (n.d.), "Specific agri-food products and sustainable development of less favoured areas: the case of insular space", PhD dissertation (in Greek, in progress).

Corresponding author

Hristos Vakoufaris can be contacted at: hvakou@env.aegean.gr