

## **Farm diversification opportunities in Bulgaria – the perceptions of farmers in the Plovdiv region – a preliminary analysis**

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### **Abstract**

*Agriculture faces significant challenges in responding to the rapidly changing global agribusiness environment. Due to the decreased incomes in agriculture in the last few decades, farm diversification is frequently recommended as one approach to business survival. The paper outlines the structural changes in Bulgarian agriculture since 1944. This paper also analyses how farm managers with different farm types (size and land ownership patterns) evaluated two strategic options, 'related' diversification (introducing new agricultural activities) and 'unrelated' diversification (introducing new non-agricultural activities). The managers identified whether they perceived these strategies as feasible for their future development, what factors encouraged/discouraged diversification and the outcomes they expected from diversification. Farm diversification was perceived as an innovative business approach, irrespective of farm size and landownership patterns, which was viewed as feasible in the medium term (5 years) by only one third of the respondents.*

**Keywords: farm diversification, farm development, related diversification, unrelated diversification, Bulgaria, Plovdiv region**

## 1. Introduction

Over the last few decades, significant changes in the global agri-business environment have decreased the profitability of agricultural primary production for many small and medium sized farms in many countries. This has led to farm diversification becoming widely advocated and implemented in the EU countries, USA, Australia and New Zealand (Ilbery *et al.*, 1998; Bowler, 1999; EC, 2000; Prag, 2000; Williams, 2000; McNally, 2001; Windle and Rolfe, 2005).

The objectives of this paper are to review and evaluate two strategic options 'developing new agricultural activities' and 'developing new non-agricultural activities' and to identify whether Bulgarian farmers with different sized farms and patterns of land ownership evaluated these alternatives in different ways. The paper is based on a farm survey and focuses on five aspects: the feasibility of the two options, the most likely new alternative activities, identifying the factors encouraging and discouraging diversification and finally, the outcomes expected from the two diversification options.

The paper is divided into five sections. The next section discusses a range of issues regarding farm diversification, followed by a brief description of agriculture and diversification activities in Bulgaria. The methodology is described in section three, while the analysis of the data is reported in section four. The final section draws some conclusions about the future direction and development of farm diversification in Bulgaria.

## 2. Farm diversification and decreasing the dependence on agricultural production

In strategic theory literature, diversification strategy is defined as a plan of development, which takes a business away from its existing markets and products at the same time (Hake, 1971; Johnson and Scholes, 2002). Many authors such as Ansoff (1968), Besanko *et al.* (2000) and Johnson and Scholes (2002) argue that there are two main types of diversification:

- Related diversification – development of new products and markets within the industry in which the business operates.
- Unrelated diversification – when the business moves out of its current industry to exploit its current 'core competence' or to create a new one, or to create a 'genuinely' new market.

Referring to agriculture, farm diversification may be defined as adding a new venture to the existing farming unit (MAFF, 1994). Damianos and Skuras (1996) provide a more detailed definition of farm diversification, which is the development of alternative economic activities using the whole range of the farm's resources (land, capital, labour, buildings, etc.). These alternative activities may be agriculturally based (related diversification), or non-agriculturally based (unrelated diversification) (Slee, 1989; Damianos and Skuras, 1996; Ilbery *et al.*, 1998; Bowler, 1999; Ellis, 2000; Prag, 2000;

McNally, 2001; Sofer, 2001; Daskalopoulou and Petrou, 2002). However, the rationale behind agriculturally based and non-agriculturally based diversification differs.

In general, the aims of farm diversification are to: reduce the dependence of the farm on a single market, product or customer; achieve higher returns on investment; ensure future growth and to avoid strong competition (Hake, 1971).

The most common reasons for developing new agricultural activities (related diversification) are: declining or inadequate farm incomes; creating employment for family and / or non-family members; planning future expansion; exploiting an opportunity or ability and reducing business risk. (Hake, 1971; Haines and Davies, 1987; EC MEANS, 1999; Prag, 2000; McNally, 2001; Sofer, 2001). The rationale for developing non-agricultural activities (unrelated diversification) are: increased efficiency of the agricultural sector resulting in higher productivity and reduced employment; rising costs of inputs combined with falling prices of outputs, reducing agricultural incomes; changes in demographic and occupational levels; development of new policies and priorities relating to agriculture and rural areas; improvement of the rural infrastructure (Prag, 2000; Chaplin *et al.*, 2004).

The development of farm diversification faces a range of financial and political barriers such as lack of capital for investment or financial support, difficulty in obtaining planning permission, lack of experienced labour and difficulties in obtaining the right information or advice (MAFF, 1994; Chaplin *et al.*, 2004).

Different aspects of farm diversification have been reported by Damianos and Skuras (1996) in Greece; Ilbery *et al.* (1998) in England; McNally (2001) in England and Wales; Sofer (2001) in Israel; Chaplin *et al.* (2004) in Central and Eastern Europe and Windle and Rolfe (2005) in Australia. In general, their results show that diversification increased both, farm incomes and the demand for labour in the rural areas. However, it was also reported in Greece, a neighbouring country to Bulgaria, that large numbers of farms still maintain a strong agricultural character (Daskalopoulou and Petrou, 2002) while Chaplin *et al.* (2004) found that diversification is unlikely to solve the problem of unemployment in the rural areas in Central and Eastern Europe. In Australia, sugarcane farmers had relatively low interest in diversification (Windle and Rolfe, 2005).

The views of Bulgarian farmers towards farm diversification have not previously been reported. Before these views are presented it is appropriate to review their context and a review of the current characteristics of the agricultural sector in Bulgaria provides this.

### **3. Agriculture and farm diversification in Bulgaria**

Agriculture has traditionally been an important sector in the economy of Bulgaria (Appendix 1) and agricultural land accounts for about 55% of the total area of Bulgaria (6.2 million ha) (SENER, 2000).

During the period of Communism (1944-1989), agriculture was characterised by large state-controlled and over-specialised agricultural industrial complexes (AICs), centrally determined prices, no recognition of market forces and guaranteed markets. Over that time, the main goals of agricultural policies in Bulgaria were to provide an adequate

supply of basic food products, at low prices to the domestic market (OECD, 2000; Mergos *et al.*, 2001). The collective farms were encouraged to develop non-agricultural activities, diversifying into food processing and light manufacturing (Chaplin *et al.*, 2004).

In 1989, the transition towards a 'free market' economy began in Bulgaria. Agricultural reform was characterised by the liquidation of the AICs, the development of a private sector, land restitution, privatization and price liberalisation. The agricultural industry was in a critical situation due to accumulated problems inherited from the period of Communism, the slow pace of reforms, lack of clear and consistent policies, reduced domestic demand and loss of the main export markets (EC, 1998; MAF, 2000; Georgieva, 2003). These structural changes led to a crisis in the agricultural sector with a significant decrease in the area and production of many crops (FAO, 1999; SENTER, 2000).

The farming structure that emerged after the liquidation of the AICs were a large number of private farms (average size about 1.5 ha producing mainly for self-consumption), and private production co-operatives (average size of about 700 ha) (FAO, 1999; MAF, 2000; Georgieva, 2003). The majority of these agricultural enterprises (individual farms and co-operatives) are still transitional, in need of significant improvements and consolidation. Consequently, they do not have a strategic vision for their future development nor plans for product/market changes (Bankova, 1999; EC, 2002).

After 1997, when land restitution was completed, a radical agricultural reform began in Bulgaria. A land market was established and new, more efficient agricultural and rural development policies were introduced. Agricultural policies became more consistent with long-term goals to develop an efficient, competitive and export-orientated agricultural sector and to improve the incomes of those working in agriculture and to prepare for the EU accession (MAF, 2000). The Special Accession Programme for Agriculture and Rural Development (SAPARD) has been introduced to prepare Bulgaria for the entry into the EU and to solve priority problems in agriculture and rural development before the candidate countries become members of the EU (EC, 2000; MAF, 2000; SENTER, 2000; Georgieva, 2003). One of the aims of this programme has been to transpose the West European model of agricultural diversification to the associated countries from Central and Eastern Europe (Chaplin *et al.*, 2004).

The popularity of farm diversification in Bulgaria increased slowly after the EU accession process started in 1999 not least because the development of alternative economic activities has been strongly promoted by Bulgarian agricultural and rural development policies and by the European Union's pre-accession SAPARD programme which has encouraged farm diversification.

#### **4. Methodology**

In this research, opportunities for farm diversification were investigated on a sample of agricultural/horticultural farms (excluding animal farms) in the Plovdiv region of Bulgaria (Appendix 2). Farmers were asked to evaluate two alternative strategies 'related diversification' and 'unrelated diversification'. Data collection was undertaken during January - April 2001. The research method used was structured face-to-face interviews as this took account of both, the farmers' lack of experience with research interviews and

the innovative nature of this topic. The same research method (face-to-face structured interviews) was used in Greece for investigating alternative farm enterprises and their strategies (Damianos and Skuras, 1996) and in New Zealand for assessing farmers' behaviour (Gary and Wilkinson, 1997).

Purposive sampling was employed due to the lack of an accurate and up-to-date list of the agricultural/horticultural farms in the Plovdiv region. Farmers were chosen due to their relevance to the research topic and their ability to produce the most valuable data. A total of 76 respondents were interviewed in their working places.

The data was analysed to determine whether variations in farm size or land ownership patterns influenced the evaluation of the two strategic options of related and unrelated diversification.

Farms in the sample were divided into the following groups: 'small' farms – less than 2 ha; 'medium size' farms – between 2-10 ha; and 'big' farms – more than 10 ha. In terms of land ownership, farms were classified: 'own' farms – cultivating only their owned restituted land; 'mixed / leased' farms – cultivating either a mixture of their own and leased land or only leased land; and co-operatives.

The majority of the data collected was quantitative and was analysed using the Statistical Package for Social Sciences (SPSS) Version 10. Some qualitative data derived from open ended questions was also collected. A range of descriptive analytical techniques were employed to determine patterns and relationships between variables.

Due to the limited number of co-operatives (5) and the small sample size, the validity of some of the statistical test results was restricted. A variety of approaches (e.g. reducing the number of possible answers, filtering out the independent variable categories) were considered and it was decided that these approaches would not significantly add to overall understanding.

## **5. Main findings**

The majority of respondents (81%) were male and more than 40 years old. The average age overall was 49 years. More than half of the respondents (57%) had secondary qualification (11-12 years education) and 32% had a university degree. The interviewees had significant experience of working in agriculture (more than 15 years). SENTER (2000) stated that Bulgaria has a valuable comparative advantage because their farmers are well educated and experienced, however, a disadvantage is their advanced age (over 60 years old).

The survey found that farm diversification was not a common practice. Less than 8% of the interviewees (6 farms) had diversified their activities and all were still in the initial stages of diversification. Three farmers commenced animal breeding (with market orientation), another two had established small wineries and one had developed a plant-nursery alongside his crop-growing activities.

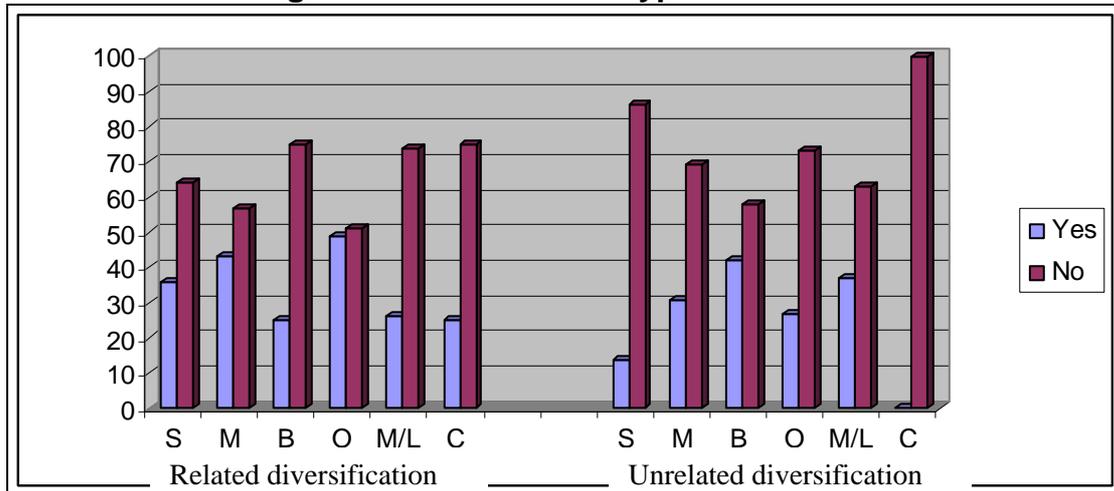
Of the 70 farms who had not diversified, 41 of them (58%) expressed interest in diversifying their businesses. For 21 of the respondents (31%), diversification was not

considered appropriate in the medium term (next 5 years) and 8 farms (11%) were undecided.

### 5.1. Feasibility of diversification

About one third of the respondents considered both strategic options feasible for their businesses in the medium term (5 years). The results revealed a preference for new agricultural activities (related diversification) rather than non-agricultural activities, irrespective of farm size and land ownership pattern (Figure 1). Unrelated diversification was perceived as an option that might be feasible in the long term but not in the short or medium term. None of the cooperatives intended to diversify by introducing non-agricultural income streams. National and international reports (MAF, 2000; OECD, 2000; SENTER, 2000) confirm that the majority of the new co-operatives in Bulgaria are re-structured old collective farms. They have a very poor financial basis and have to adapt quickly to survive in the new competitive environment.

**Figure 1: Perceived feasibility of 'related' and 'unrelated' diversification strategies for different farm types in the medium term**



Note: S – 'small' farms; M – 'medium size' farm, B – 'big' farms, O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

### 5.2. Most favoured diversification activities

The alternative activities, considered most feasible by the interviewees who intended to introduce 'related diversification', were cultivating new agricultural crops such as herbs, oil-bearing or arable crops. The SENTER report (2000) emphasised that Bulgaria has a very good climate and a huge variety of herbs, which is a 'unique' advantage for herb production for export. The results revealed that the interviewees with different farm types (in terms of size and land ownership patterns) differed in their preferences for developing new agricultural activities. About one third of the respondents with small farms (39%) intended to combine agricultural activities with livestock farming. Those with 'big' farms and the co-operatives wanted to introduce oil-bearing crops suitable for big plots of land. However, 2-10 ha farms and those respondents, who cultivated only their own land, expressed a preference for planting herbs (Table 1). Herb production is labour intensive and best suited to smaller plots of land (SENER, 2000).

**Table 1: The top four new agricultural activities for farms of different size and ownership pattern**

Activities	Related diversification			Related diversification			Total
	S	M	B	O	M/L	C	
	%	%	%	%	%	%	%
Herbs	20	44	0	44	14	0	35
Animal farms	39	28	0	33	14	0	27
Oil-bearing crops	0	17	33	6	29	100	15
Arable crops	20	6	0	6	4	0	8

Note: \* This table includes only the most frequent four answers and excludes all the other answers. Percentages are based on all responses and may not sum to 100%  
 \* S – 'small' farms; M – 'medium size' farm, B – 'big' farms, O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

More than one third of the interviewees who accepted the challenge of developing new non-agricultural activities (40%) wanted to establish a small-scale winery. Other desirable activities, stated by less than one third of the farmers (30%), were apple juice processing units or drying fruits and vegetables (10%). Respondents with different farm sizes and ownership patterns had different preferences. Farmers with less than 2 ha and 70% of those with 'own' farm who wished to introduce 'unrelated diversification' intended to develop small-scale wineries. This result was supported by both, SENTER (2000) and OECD (2000), who argued that establishing a winery was potentially an efficient business activity in the transition towards a 'free market' economy in Bulgaria. In comparison, farmers with 'big' production units apparently had more confidence and wished to dry their production (*e.g.* fruits) for export markets. SENTER (2000) stated that there is a market niche in the EU countries for dried fruits and vegetables and the Bulgarian farmers have the potential to address this market niche. The respondents with 'mixed/leased' farms (40%) wanted to establish fruit-processing units (*e.g.* apple juice) (Table 2). Other alternative non-agricultural activities although not very common amongst the interviewees, were establishing a farm shop or producing frozen fruits.

**Table 2: The top four new non-agricultural activities for farms of different size and ownership pattern**

Activities	Unrelated diversification			Unrelated diversification			Total
	S	M	B	O	M/L	C	
	%	%	%	%	%	%	%
Small winery	100	46	20	70	20	0	40
Small fruits processing unit	0	39	20	20	40	0	30
Drying room	0	0	40	0	20	0	10

Note: \* This table includes only the most frequent four answers and excludes all the other answers. Percentages are based on all responses and may not sum to 100%  
 \* S – 'small' farms; M – 'medium size' farm, B – 'big' farms, O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

SENER (2000) suggested that organic farming could be a successful direction for Bulgarian agriculture. However, although respondents were aware of organic production it was identified as feasible by only one respondent. Another diversification activity, not very popular, was agri-tourism as respondents found it difficult to understand.

### 5.3. Factors encouraging diversification

The main factors encouraging farm diversification were a combination of business, economic and personal factors such as expected good financial results (profit and cash

flow), available market demand and possession of knowledge and experience. However, those considering new non-agricultural activities were characterised by their youth (Table 3). The SENTER report (2000) demonstrated that 60% of Bulgarian farmers are over 60 years old.

**Table 3: Factors encouraging farm diversification for different farm types**

Encouraging factors*	Related diversification			Unrelated diversification			Related diversification			Unrelated diversification		
	S	M	B	S	M	B	O	M/L	C	O	M/L	C
<b>PERSONAL FACTORS</b>												
Possession of knowledge and experience	40	33	39	80	54	40	28	43	100		50	
No age limitations					31					50	50	
Improved personal and financial security	40	39					50					
<b>BUSINESS FACTORS</b>												
Increased farm profit	40	42	42	60	85	60	67	43		90	60	
Increased cash flow				40	31	60				50	40	
Reduced business risk	40		33									
Available machinery									100			
<b>ECONOMIC FACTORS</b>												
Available market demand	60	56	46		39		56	57	100		30	
Sufficient distribution system		33	33	40				57		30		

Note: \* This table includes only the most frequent four answers and excludes all the other answers. Percentages are based on all responses and may not sum to 100%

\* S – 'small' farms; M – 'medium size' farm; B – 'big' farms; O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

The results demonstrated that the factors encouraging the development of new agricultural or non-agricultural activities were not influenced by farm size (Table 3).

Farm diversification was not a popular option for the managers of the co-operatives and only one of them intended to introduce new agricultural activities. None wanted to develop non-agricultural activities (Figure 1). This result could reflect an OECD (2000) report that stated that the newly established co-operatives have major financial problems, effectively preventing investments in new markets and products. However, the individual farms ('own' and 'mixed/leased') were mainly encouraged to support product and market changes due to perceived financial benefits (profit and cash flow), their accumulated knowledge and experience, and their youth (Table 3).

#### **5.4. Factors discouraging diversification**

About two thirds of respondents thought that developing new activities related to, or not related to agriculture, was not feasible in the medium term (Figure 1).

A review of the literature found that, in general, the economic performance of the newly established private farms in Bulgaria was poor (OECD, 2000; Georgieva, 2003). Their financial resources (own and borrowed) for investing were limited. Falling profits and cash flow problems together with the lack of subsidies and grants for investments were the key factors discouraging product/market transformations according to the respondents, irrespective of their farm size and land ownership patterns (Table 4). Lack of markets and the increased production costs were identified as primary discouraging factors when respondents considered developing new agricultural activities, whereas those who wished to develop non-agricultural activities pointed out the lack of governmental financial and organisational support (subsidies and available advisory

services) as the key negative factors. Additionally, farmers cultivating less than 10 ha were also discouraged by lack of modern machinery.

Borrowing money was a very complicated task in the 1990s as loans for agricultural activities were perceived as high risk by the banks and agricultural land was not accepted as a security (MAF, 2000). Acquiring specialised advice was almost impossible due to the belated establishment of extension and advisory services (OECD, 2000).

**Table 4: Factors discouraging farm diversification for different farm types**

Discouraging factors*	Related diversification			Unrelated diversification			Related diversification			Unrelated diversification		
	S	M	B	S	M	B	O	M/L	C	O	M/L	C
<b>PERSONAL FACTORS</b>												
Age limitations				33								
Lack of knowledge and experience												
<b>BUSINESS FACTORS</b>												
Decreased farm profit	33	38	33				32	40				
Decreased cash flow				25	35	29				28	35	25
High production costs	33	33	33				35	35	33			
Lack of or obsolete machinery	33	33										
Lack of capital for investments				67	79	57	30		67	78	77	50
<b>ECONOMIC FACTORS</b>												
Lack of market demand	33	58	44				42	60	33			
Lack of subsidies			44	25	35	71	32		67	41		100
Lack of advisory services			33	33	41	29				48	29	50
High level of bureaucracy										28		

Note: \* This table includes only the most frequent four answers and excludes all the other answers. Percentages are based on all responses and may not sum to 100%

\* S – 'small' farms; M – 'medium size' farm, B – 'big' farms, O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

### 5.5. Outcomes of farm diversification

The expected outcomes from diversification depended on farm size and ownership pattern. Farmers with less than 2 ha and 'own' farm prioritised livelihood security and quality of life and could be classified as 'lifestylers'. However, in a Bulgarian context, this would refer to security of their livelihood but in a West European context this would be interpreted as rejecting higher income opportunities for a better life style. Respondents with farms of more than 2 ha and those who leased land could be classified as 'flexible strategists', aiming for increased business viability and trying to respond to the rapidly changing external environment in Bulgaria by exploring potential new market opportunities (Table 5). The MAF report (2000) indicates that the number of these farms is increasing slowly and hopefully, they will represent the future of farming in Bulgaria.

**Table 5: Expected outcomes of the two diversification strategies for different types of farm**

Expected outcomes	Related diversification			Unrelated diversification			Related diversification			Unrelated diversification		
	S	M	B	S	M	B	O	M/L	C	O	M/L	C
	%	%	%	%	%	%	%	%	%	%	%	%
Increased business viability	60	89	100	100	92	80	72	86	0	80	100	0
Better quality of life	80	78	67	100	69	60	78	71	100	80	60	0
Better quality of products	40	39	67	50	46	60	39	57	100	50	50	0
Diversity of products	60	17	0	0	31	20	33	0	0	40	10	0
Diversity of markets	60	78	33	50	62	60	78	71	0	50	80	0

Note: \* This table includes only the most frequent four answers and excludes all the other answers. Percentages are based on all responses and may not sum to 100%

\* S – 'small' farms; M – 'medium size' farm, B – 'big' farms, O – 'own' farms; M/L – 'mixed/leased' farm; C – co-operatives

## 6. Conclusions

Farm diversification is an emerging field of research in Bulgaria and this study is one of the first to investigate the perceptions and opinions of farmers towards farm diversification.

Farmers in the Plovdiv region of Bulgaria, irrespective of farm size and land ownership patterns, did not favour farm diversification, preferring to retain their traditional agricultural orientation. Several factors contributed to their negative perceptions. The external economic environment had not encouraged farm owners/managers to introduce product/market transformations due to poor agricultural and rural development policies, lack of Governmental financial or organizational support, unstable markets and limited export markets. The number of advisory offices in Bulgaria who could provide helpful information and practical guidelines was also very restricted.

On the other hand, some business factors were also perceived as barriers to farm diversification, including limited financial resources from existing agricultural enterprises.

However, a limited number of farms had diversified their businesses and more intended to introduce new agricultural or non-agricultural activities. They were encouraged to undertake product/market transformations due to their optimistic financial results and significant knowledge and experience.

Farming plays an important role in the rural economy in Bulgaria. It is the main user of the land and a significant employer (MAF, 2000). Farm diversification is a common business approach for increasing the farm incomes in the West European countries (EC, 2000, Chaplin *et al.*, 2004). During the pre-accession process, the EU has provided guidelines and established the requirements for agricultural restructuring in Bulgaria (EC, 2000). Hence, the Special Accession Program for Agriculture and Rural Development (SAPARD) that was introduced in 2000 prioritises and supports diversification of economic activities (MAF, 2000; EC, 2000, 2002).

Despite the difficult economic environment in Bulgaria, farm diversification has a lot of potential in Bulgaria due to favorable natural and weather conditions and cultural traditions that have existed for centuries. Equally, the completion of the process of joining the EU will present new challenges and opportunities for the successful implementation of farm diversification in Bulgaria. Although the majority of farmers rejected the adoption of new business approaches, such as farm diversification, over the next 5 years, they were aware of these opportunities but were waiting for improved political/legal stability and economic growth to provide a favorable business environment for product and / or market transformation. The FAO (1999) predicts that the numbers of entrepreneurial farms will increase and they would play an important role in the revitalisation of the agricultural sector in Bulgaria.

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### APPENDIX 1: Geographical location of Bulgaria



APPENDIX 2: Geographical location of the Plovdiv region of Bulgaria

