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MASTER'S DEGREE THESIS

MANAGING A FAMILY FARM– A RESTRUCTURING PROGRAMME

Ljubljana, February 2005 Tadeja Vodovnik

Author's Statement

I, **Tadeja Vodovnik**, hereby certify to be the author of this Master's Degree thesis, which was written under mentorship of Dr **Miroslav Glas** and in compliance with the Act of Author's and Related Rights – Para. 1, Article 21. I herewith agree this thesis to be published on the website pages of ICPE and the Faculty of Economics.

Ljubljana, February 14 , 2005 Signature_____

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CONTENTS

INTRODUCTION

The agricultural area in Slovenia accounts for 44% of the country's territory, however 80% of the agricultural land is located in areas with unfavourable conditions for agriculture. Agriculture represents a small sector of the Slovenian economy, around 3% of the GDP and about 5% of the employment (OECD, 2001, p. 20).

With Slovenia's membership in the European Union (EU), Slovenian farmers will take part in the Common Agricultural Policy (CAP), which is a comprised set of rules and mechanisms that regulate the production, trade and processing of agricultural products in the EU, with attention being focused increasingly on rural development. Under the CAP farmers are entitled to direct aid payments (European Commission, 2004 a). Direct payments in Slovenia are, as in the EU member states, required to compensate for a decline in farmers' income and not, as was the case in other candidate countries, to increase the level of their income (Potočnik, 2004). Also other EU support programmes and funds are available to EU farmers for modernisation of farms and farm infrastructure (Slovensko kmetijstvo v EU, 2003).

Under the CAP small farms located in areas with unfavourable conditions are entitled to higher direct payments as they were under the Slovenian domestic agricultural policy. The opportunity for these farms rests with agri-environmental measures. These measures enable on-farm sale and therefore they can avoid the direct competitive pressures that the food industry is facing. Slovenian farms with unfavourable conditions are mostly already involved in sustainable and integrated production. By introducing small adjustments, these farmers will be able to apply for additional direct aid payments (Slovensko kmetijstvo v EU, 2003).

Agriculture contributed less than 4% to the gross domestic product of the EU in 2002. In Slovenia the figure was 2.9%. A similar share of agriculture in the national economy is registered in the less developed EU members Greece and Portugal (SURS, 2003). Other parameters, such as agricultural production per hectare, size of farm and self-sufficiency, are rather low compared to those of the EU (Žaucer, 2004).

In the last few decades Slovenian agriculture developed under specific economic conditions, and is best mirrored in its agrarian structure. While the EU carried out intensive structural changes; in the territory of the former Yugoslavia, only the social sector enjoyed special benefits. The development of private farming was discriminated against through various measures - starting with the maximal allowed land ownership to the prohibition of private ownership of tractors and other heavy farm machinery. Consequently, the development of the private agricultural sector lagged behind that of the countries of Central Europe. It should also be added that Slovenia did not have its own agricultural policy until 1991 (Povirk, 1997).

Farmers in Slovenia were organised in a traditional way. Especially on the farms with unfavourable conditions, farming methods were strongly based on old concepts and values. Farming methods have changed little since the time of their grandfathers, a consequence of the

fact that farms in Slovenia are mostly run by part-timers and elderly people. About two thirds of private family farms are located in areas with unfavourable conditions and the production potential of those farms is also low because of limited land and the lack of capital. The average yields of major crops are below EU levels. Less than 12% of private farms provide full-time employment for the owners. Therefore, many farms are poorly linked to markets: a considerable proportion of their production is used for home consumption or for on-farm sales (OECD, 2001, p. 12).

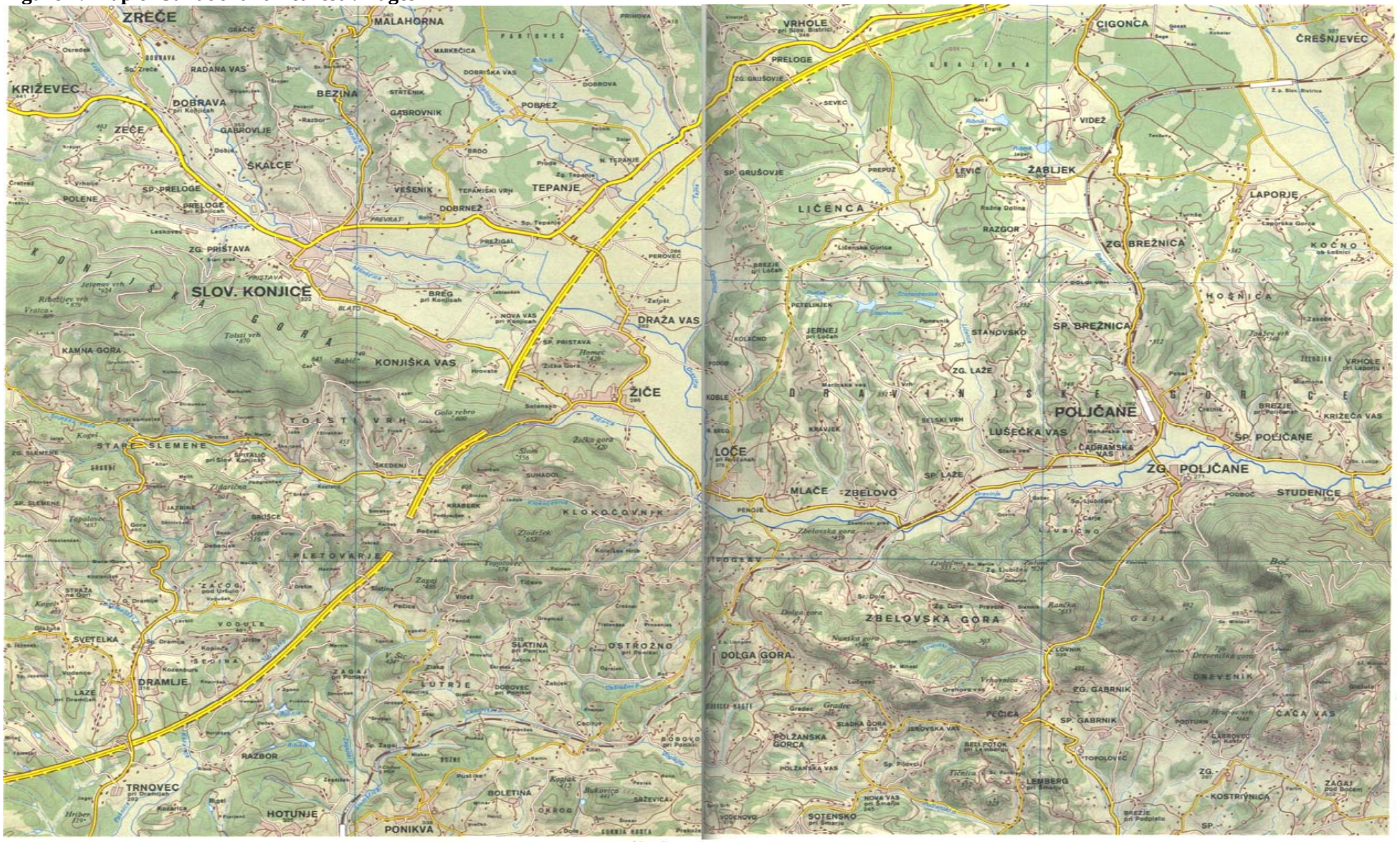
The family farm is more than a profit maximising enterprise. It is an asset, whose productive life expectancy may extend well beyond that of its operator and whose future value depends crucially on its continuous functioning. In many societies the family farm is a place of residence for the farmer in old age and it is attached to land, whose symbolic importance exceeds its economic value (Mishra et al, 2003, p. 3).

Family farms are spread over an area of 456,000 ha in Slovenia (SURS, 2000). Their survival is demographically and socially important for the country's sustainable and rural development. Family farms usually face the problem of succession. Failure to plan carefully the retirement and transfer of the estate can result in serious problems such as financial insecurity, personal and family dissatisfaction, and unanticipated capital losses (Mishra et al, 2003, p. 2). Farms which brought financial insecurity forced many successors to seek off-farm employment. On the other hand many studies have shown that when farming cannot provide the family with an adequate standard of living, farmers refrain from selling farm assets and try to supplement their income from other sources, such as off-farm work (Mishra et al, 2003, p. 2).

In the EU only those Slovenian farms that are able to ensure a sufficient level of income will survive. In order to survive most farms with unfavourable conditions in Slovenia will need to introduce supplementary activities. In Slovenia these activities on the farm are regulated under the Agriculture act. The act introduces many different additional activities such as tourism on the farm, selling products locally, making compost, as well as some supplementary production (Uradni list RS, 2000). Supplementary activities help farmers to raise their income to a level that provides them with an adequate standard of living.

The second part of this study will focus on the business models of family farms located in Suhadol. This is a small village situated 500 metres above sea level and is classified as a less favoured area. It is located in the North East of Slovenia, 10 kilometres from the nearest city Slovenske Konjice (see page 3). The distance from the highway is approximately 10 kilometres and from the local main road Slovenske Konjice-Poljčane, 2 kilometres. The nearest village is 4 kilometres away. Suhadol is located near the monestary Zička kartuzija. Farming activity is mentioned in Suhadol already 400 years ago. In the village small and medium-sized family farms predominate. Some new vineries were established in the village in the last decade by non-residents. The southern part of the village is forested. On the northern fringe of the village, there are mainly pastures, grassland, fields and vineyards. Livestock and wine producing farms strongly dominate. The wine-road (established to promote the wine regions) goes through the village. The road infrastructure enables reasonably easy access to all the farms in the village.

Figure 1: Map of Suhadol and nearest villages



Source: Geodetski zavod Republike Slovenije (1985, p. 91-92).

Comparison of the business models of different farms in Suhadol will indicate the best managerial practices and the best portfolio of activities. It will give information on the know-how needed and the marketing channels already developed.

PURPOSE OF THE THESIS

1. First, the thesis will try to answer the question of whether the owners of family farms should retain them and improve their operations; the dilemma being either to sell their farms, if there are no possibilities for improvement or, to transfer to other business activities.

2. Secondly, if it is possible to improve some operations on the farms, an alternative business model can be developed to provide the following options:
    a. setting up an appropriate portfolio of activities on the farms,
    b. assuring the appropriate marketing channels and sources of income from the set activities,
    c. applying for all available structural support for these activities.

OBJECTIVE OF THE THESIS

The thesis will find an answer to the dilemma for an existing farm, which course of action to take for the long-term future. It will identify concepts for possible future development for the observed farms in Suhadol, which could serve as a model for a rural development scenario for the LFA farms in Slovenia. The objective of the thesis is also to confirm that the observed farms are not able to survive with the income from farming activity only, since the farm household incomes of the assessed farms are largely dependent on direct payments, social transfers and income from other activities.

HYPOTHESES PROPOSITIONS TO CHECK

In the thesis I will try to confirm some working hypotheses that follow from the purpose and goal of the thesis. They might be taken also more as propositions rather than hypotheses since the testing will be based on a kind of simple benchmarking and qualitative assessment and not a detailed empirical analysis.

1. Current business models of the farms in Suhadol do not suffice for the survival and sustainable development of these farms.

2. The opportunity for the farms rests with the diversified activities and supplementary sources of revenues.

3. Agricultural subsidies will be important for the farms' survival.

4. For long-term survival, farms have to develop the required expertise and alternative marketing channels for their products. However, only farms with potential for such a successful restructuring have a feasible future in the agriculture.

METHODOLOGY OF THE THESIS

The thesis combines theoretical concepts with case studies of farms in the form of a comparison of the family farms in the area with unfavourable conditions, a kind of simple benchmarking exercise. The theoretical concepts will include:

- ✓ the concepts of modern family farms as part of the agriculture in developed countries,
- ✓ the managerial practices to develop the family farms as an efficient production unit,
- ✓ the rural entrepreneurship as the concept of undertaking the diversification of activities and sources of revenues,
- ✓ benchmarking as a tool to direct the operations of the farms.

The empirical analysis will be based on the diagnosis of the current situation of farms and the benchmarking concept to develop a successful model from the practice of similar farms. The methods applied:

- ✓ interviews with family farm holder-managers,
- ✓ benchmarking as the concept to identify best practices in developing a sustainable unit,
- ✓ strategic management concepts to develop SWOT-analysis, vision, goals and objectives of the farms,
- ✓ business planning to determine the feasibility and devise a viable family farm with a diverse activity structure.

AGRICULTURAL MARKET AS THE CONTEXT OF FARM ACTIVITIES

Since the thesis covers the agricultural sector the major problems of agricultural markets will be described. To better understand the economic specifics of agricultural markets, the elements of market instability are discussed. The empirical part of the thesis analyses the farm household incomes of the assessed farms, therefore the problem of income disparities is presented. Both market instability and income disparity are the reasons for government intervention that is incorporated in the agricultural policy in the form of different measures such as intervention purchases, price supports and income payments. The description of the reasons for agricultural policy will in parallel clarify the grounds of the CAP policy described in the thesis. Even though the economic problems in the agricultural markets persist, the agricultural sector plays an important role in today's economy for food security reasons and therefore it is more sensitive than other sectors.

Although the agricultural sector varies in importance across countries, the agricultural markets face the same economic problems worldwide. The major problem is the ***instability*** of the

agricultural markets. Instability is purely an economic problem therefore it corresponds to economic measures. The second problem is the ***neediness*** for state assistance that has its historical roots in the Great Depression sixty years ago, when farmers in the United States faced poverty due to income disparities between farm and non-farm income. Even though the neediness deals more with equity or fairness than with efficiency or productivity, it is incorporated in income economic measures (Greer, 1993, p. 549).

Market instability means price and income instability that result from a combination of specific internal (pure competition, gestation period, demand and supply inelasticity) and external (bad weather) economic conditions in the agricultural markets. Firstly, with a very large number of producers, easy market entry and standardised products, agriculture is *purely competitive*. Secondly, the *gestation period* - the time span between crop planting and harvesting - creates a lag between farm inputs and outputs. The production decisions determining the following season's output, based on rough guesses about future markets. Thirdly, a large drop in the price of an agricultural commodity stimulates only a small increase in the quantity demanded and indicates the *demand inelasticity*. Unresponsive quantity demanded is characteristic for all basic farm commodities because of their necessity to consumers. One of the reasons for inelasticity is also that the farmer receives a small share of the consumer price after the transportation and processing costs are calculated. Lastly, *inelastic supply* is evident in large price changes that fail to generate significant changes in quantities supplied, especially in the short term. In agriculture it is not easy to convert dairy farming to orchard operations or vice versa. External conditions cause the shifts in demand and supply of agricultural commodities. Bad weather (droughts, floods, etc.) leads to smaller marketable quantities resulting in higher prices. The combination of these economic conditions causes sharp disturbances therefore agriculture is more unstable than other industries. Stability encourages farm efficiency and productivity, but without stability farmers try to protect themselves by investing in non-productive cash reserves (rather than in machinery and equipment) and tend to diversify the farming activity even though specialised farming has proved to be more efficient (Greer, 1993, p. 547-548).

BRIEF OVERVIEW OF THE THESIS

The thesis is structured as follows: a first chapter gives a brief overview of the macroeconomic indexes of EU agriculture, followed by a description of the major EU farm structure characteristics. The concluding part of this chapter describes the EU agricultural policy (CAP). The second chapter discusses the same elements of Slovenian agriculture that were described for the EU. In this chapter a brief overview of the marketing of the agricultural products in Slovenia is included. The chapter concludes with the comparison of the EU and Slovenian farm structure. The empirical part introduces the analysis of the six family farms in Suhadol, including the individual SWOT analysis of the observed farms. In the concluding part of the thesis the weakest resources of the Zidanšek family farm are benchmarked and the future operations and marketing for the farms are proposed. A result of the thesis is the restructuring programme for the Zidanšek family farm.

1 AGRICULTURE, AGRICULTURAL PROBLEMS AND GOVERNMENTAL SUPPORT

Agriculture is the primary sector involved in food production. In the last decade the role of agriculture is diminishing due to increased industrialisation and urbanisation. The population engaged in agriculture is decreasing. Technological change encourages the introduction of improved technologies and leads to higher productivity. Therefore in developed countries small number of farmers are capable of supplying their population with agricultural commodities and they even ensure the export of these products.

Despite the small contribution of agriculture to the economy in developed countries, particular governments are paying much attention to the primary sector and strongly support this sector. The reason for state support lies not only in food production but also in the impact of farming activity on other economic factors and on the whole of society. In the last few decades the rural development function of agriculture has gained importance. The primary sector is the main economic activity of rural areas and mostly represents the only determinant of rural development. Farming has a powerful effect on the countryside, tourism, nature protection and folklore protection.

The thesis discusses the agricultural markets therefore the introductory chapter gives a short overview of the basic principles of agricultural economics. The specific characteristics of agricultural markets are reviewed. The third part involves the farm income situation in OECD countries. Finally, the categories of government support and its impact on markets are analysed.

1.1 PRINCIPLES OF AGRICULTURAL ECONOMICS

Agricultural economics does not differ greatly from general economic theory. The subject of agricultural economics is based on microeconomic theory rather than macroeconomic concepts. Microeconomics is the foundation for theoretical and empirical analysis of phenomena in agricultural economics. Similarly, as in all other sectors including the primary sector, supply of and demand for agricultural commodities determine the price (principle of the market mechanism). The goal of producers – farmers – is profit maximisation and the consumers' goal is to buy at the lowest price possible. But agricultural markets are faced with problems that highly influence their short-term and long-term characteristics. Agricultural activity has specific characteristics which play an important role in directing acknowledgement agricultural policy. The major specifics of agriculture are: (i) considerable dependence on weather conditions (i.e. limited forecasts on production outputs and outlooks for agricultural markets); (ii) the production cycle is essentially slower compared with cycles in other sectors, therefore farmers are not able to react immediately to market changes; (iii) supply and demand are not equalized, consequently prices are falling over the long-term. The price reductions call for technical changes that should lead to higher farm household incomes largely. Both supply of and demand for agricultural goods are inelastic. Consequently prices fluctuate widely and that causes considerable oscillation in farm household incomes. This situation raises the level of uncertainty which, due to weather conditions, is already high (Žižmond, 1995, p.117).

Supply and demand analysis is a fundamental and powerful tool that can clarify a wide variety of interesting and important problems. Firstly, the analysis contributes to the understanding and prediction of how changing world economic conditions affect market price and production. Secondly, it evaluates the impact of government price controls, minimum wages, price supports and production incentives. Thirdly, it determines the affect of taxes, subsidies, tariffs and import quotas on the consumers and producers (Pindyck et al., 2001, p. 19).

1.1.1 Demand and revenues

Individual demand does not reflect only the customer's needs, but it also refers to a customer's ability to satisfy his/her needs. The market demand curve shows how much of a product consumers overall are willing to buy as its price changes. It sketches the relationship between the quantity demanded and the product's price. The position of the curve depends both on the individuals included in the summation (i.e. market population) and on the level of consumers' income (i.e. the distribution of income). The demand curve slopes downwards: other variables being equal, consumers are usually ready to buy more if the product's price is lower. A lower price may encourage our customers to buy larger quantities and it may attract other customers, who previously were unable to buy our product, to begin buying it. There are many factors determining the demand on agricultural products. The aggregate demand function is defined by the following variables (Turk, 2001, p. 98; Erjavec, 1995, p. 42):

$$Q = f(C, C^*, DH, DDH, POP, OK)$$

where: Q - quantity demanded; C – product's price; C* - prices of other agricultural products on the market; DH – population's income; DDH – income distribution within the population; POP – population (number); OK - customers' preferences and expectations.

The most important factors are: (i) population, (ii) real income and (iii) relative food prices (Žižmond 1995, p. 96-98).

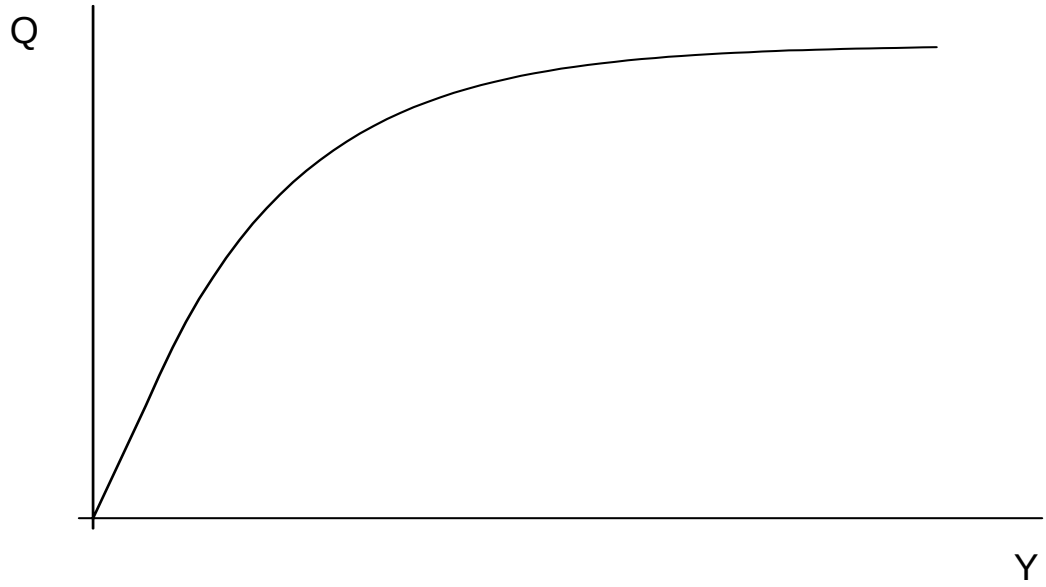
(1) Population and real income

Population size is an important determinant of demand, because we use more than 80% of all agricultural goods for food production. The problem is that the rate of growth in population and food production differ. Worldwide food production is growing faster than population in the long-term, which is favourable. In developed countries food production growth is faster than population growth but it is the opposite trend in developing countries. Therefore the problem of food distribution arises. Some developing countries suffer food scarcity and are faced with poor food quality, their imports are limited because of payments (Žižmond, 1995, p. 98).

While real incomes (the population's purchasing power) are directly related to the size of population, it is important to focus our attention on income elasticity of demand. Income elasticity is the percentage change in the quantity demanded, resulting from a 1% increase in income. This measure shows that the demand for most goods rises when aggregate income rises. With the rises in income the income elasticity of demand falls (Erjavec, 1995, p. 43-45). For

almost all agricultural products the income elasticity coefficient is below 1 (i.e. in relative terms the income rises lead to a reduction in demand for food). The other significant characteristic of income elasticity is that the income elasticity coefficient decreases when the real income grows. The statistics show much lower income coefficients in industrialized countries compared to developing countries (i.e. the proportion of the total income spent on food consumption is higher in the developing world than in the developed world.) (Žižmond, 1995, p. 97).

Figure 2: Demand on fruit and vegetable derived from income changes



Source: Žižmond (1995, p. 97).

In general, with the growth in income, the demand for agricultural goods is increasing, but demand increases are different for different groups of products. The demand for basic foods grows rapidly at lower levels of income. As soon as the level of demand is reached, where our natural need for food is satisfied, the demand starts to decrease, since the agricultural commodities are acting as inferior goods (i.e. with the increased income the demand is decreasing). This is because nutrition needs are naturally limited. Usually this happens at a certain level of income. As shown in figure 2 this is especially true for fruit and vegetable demand (Žižmond, 1995, p. 97).

(2) Relative prices

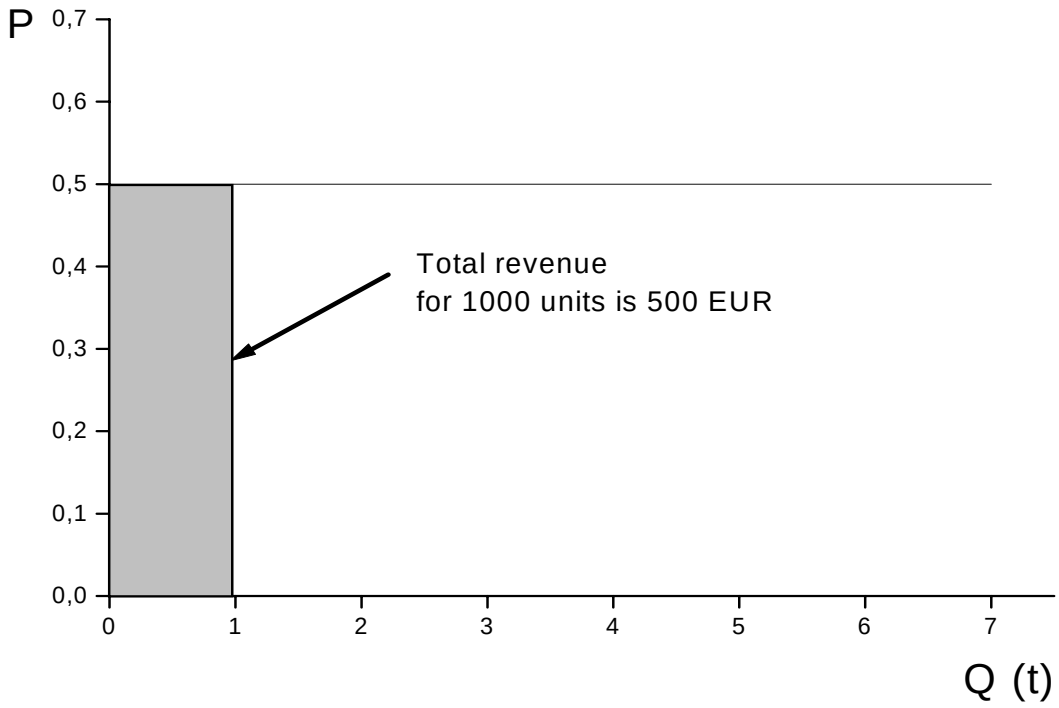
The third important variable of demand is the relative price of food. This attribute shows the level of agricultural prices relative to the prices of other goods and is called price elasticity. The relationship between price changes and demand is usually negative, but it differs among different groups of products. The price elasticity coefficient is below 1 in absolute terms, but it is an important measure for agricultural policy especially in developing countries. There governments try to maintain a certain living standard among the poor in the population by introducing relatively low prices for agricultural goods. Such a policy encourages demand, but it does not promote higher production growth (Žižmond, 1995, p. 99).

The demand elasticities can contribute to more rational decision making in agriculture for state analysis and forecasting of future market developments. We use this measure in the decision making process at the entrepreneur level and governmental level (i.e. for empirical agrarian-political analysis) (Erjavec, 1995, p. 49).

Among some other factors influencing demand is also the enhancement of consumers' awareness for healthier food ("organic food"). The general market long-term trends are that the consumption of fat and sugar is falling. On the other hand the consumption of vegetables and fruit is rising. Milk and meat consumption is stable. Different diseases also have an impact on demand (Erjavec, 1995, p. 52-54).

Because demand determines marginal revenue, the revenue portion is discussed first and later the marginal costs will be discussed. The formal economic principle for profit maximisation is to equalise marginal revenue and marginal costs. Marginal revenue is the change in total revenue attributable to the sale of one more unit of output. It might be called incremental revenue. Because price and quantity are the basic elements of demand, and because the total revenue is always price times quantity sold, there is a relationship between demand and marginal revenue. In a purely competitive market the firm's total revenue rises directly according to the quantity sold at a constant rate of increase. Because the additional sale of one unit of output always adds to the total revenue an amount that just equals the price. However, price and marginal revenue are equal, when demand is perfectly elastic (Greer, 1993, p. 35).

Figure 3: Demand of a perfectly competitive seller



Source: Greer (1993, p. 35).

1.1.2 Supply and costs

Supply function is determined with the following variables (Turk, 2001, p. 79):

$$Q = f(C, C^*, T, U, V)$$

where: Q – supplied quantity; C – product's price; C* - prices of competitive products; T – technological factors; U – government interventions for this product; V – weather conditions.

In agricultural markets there is the phenomenon of inverse supply. Farmers can react contrary to the expectations leading to inverse supply in the agricultural markets. Therefore the fall in prices results in a higher quantity supplied. The reasons for that lay in: (i) immobility of inputs, (ii) low opportunity costs of the labour force in agriculture and (iii) income problems. Compared with other sectors investments in agriculture are higher due to the low level of fixed capital mobility. The investments are specific and not transferable, i.e. the value of a stall for cattle is lower than the value of the same stall, which is reconstructed for pig-breeding. Farmers are therefore forced to maintain the same production, while in their unfavorable economic situation they are not able to use the invested capital differently (Erjavec, 1995, p. 30).

At the same time farmers are faced with different risks and uncertainties that influence production (Turk, 2001, p. 166):

- ✓ risks within the production process (weather conditions, diseases, etc.)
- ✓ risks connected with market prices of agricultural commodities and input price risks (instability in the agricultural market)
- ✓ financial risks (investments, credits)
- ✓ institutional risks (regulation harmonisation, fulfilling the objectives of the agricultural policy)
- ✓ technological risk (improper usage of machinery and equipment, fertilizers and sprinklers) human resources risks (health and age of farmers).

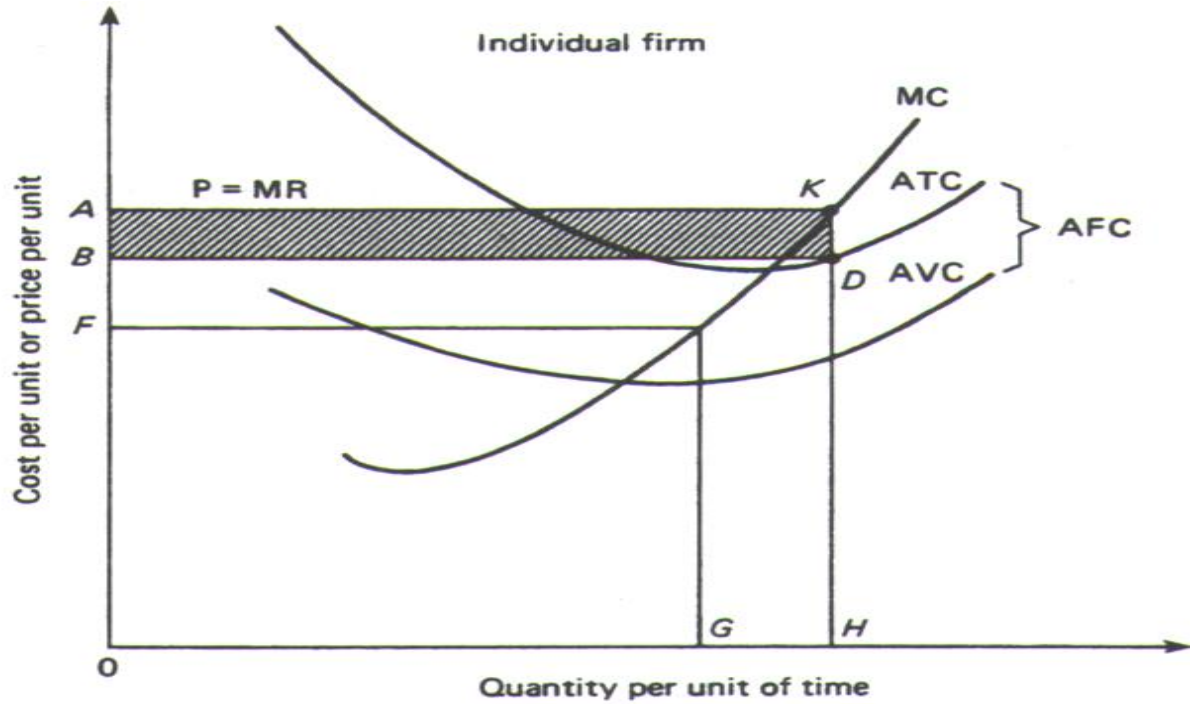
Žižmond (1995, p. 98 - 106) divides supply into the following major determinants: land resources, human resources, farm equipment and technology in agriculture, the structure of production, relative prices of agricultural commodities and the institutional framework for the economy as a whole (especially for agriculture).

Land resources are a natural and fundamental condition for the production of agricultural commodities. Land quality determines the potential extent of agricultural production. The utilized agricultural area worldwide represents 34% of the total area. The share of the farming population in the total population is decreasing. Developed countries introduce modern agricultural technology that largely raises productivity. Human resources on farms are aging and there is an increased share of women involved in farming. Industrialisation and urbanisation are leading to a reduction of households' members and to the slow degeneration of individual villages or regions (Kmet et al., 2001, p. 59).

The second aspect of profit maximisation, which is determined by supply, is marginal cost, defined as the addition to total costs due to additional production of one unit of output. Total costs are a sum of total fixed costs and total variable costs. The immobile production factors (land, buildings, equipment) generate total fixed costs. These costs do not vary with output. The average fixed costs are the total fixed costs divided by the number of units produced. Thus, as output rises these fixed costs are spread over an increased number of units. On the other hand total variable costs are costs influenced by variable factors of production (i.e. labour, raw materials). These costs, in terms of total costs, always rise with larger amounts of output. On the other hand average variable costs may fall, remain unchanged or rise, depending on the prices and productivity of those variable factors, as they are variously applied to the fixed factors. Average variable costs are total variable costs divided by the number of units in that quantity of output. In other words, if total variable costs rise less rapidly than quantity does, average costs will fall (Greer, 1993, p. 36).

With the average total cost curve (ATC), the average variable cost curve (AVC) and the marginal cost curve (MC), it is easy to see the firm's profit. In the short-term the competitive firm maximizes its profit by choosing output H at which its marginal cost (MC) is equal to price P (or marginal revenue MR) of its product. The profit of the firm is measured by rectangle BAKD. Any lower or higher output, would lead to lower profit. At price OF there would be a loss. Still, in the short-term the firm would continue to produce an amount OG, which would again equate the marginal revenue (now OF) with marginal cost. The firm minimises its losses in such a position. Only if the price was to drop so low that the firm could not recover its variable cost (AVC) on each unit would it minimise loss by closing down. The firm should never lose more than its fixed cost (Pindyck et al., 2001, p. 258).

Figure 4: Short-term cost curves of the firm together with perfectly competitive demand



Source: Greer (1993, p. 36).

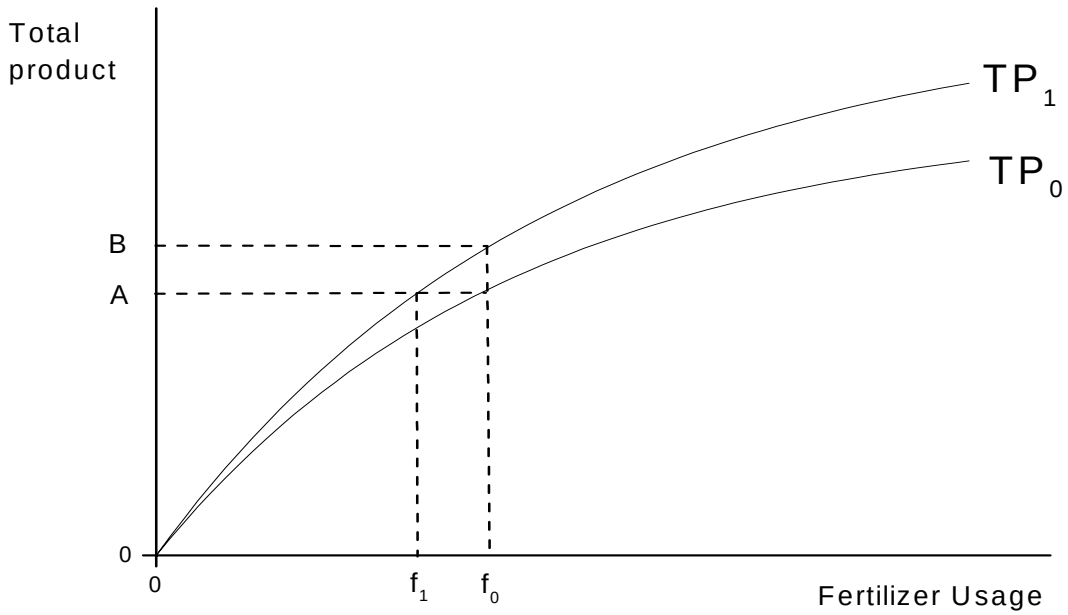
(1) Technology in agriculture

One of the principle engines of economic growth is technological change (Colman et al., 1993, p. 49). Therefore the role of technological change in agriculture is discussed next.

Technological change raises productivity. Statistics shows that in 1950 one farmer could feed eight consumers, but in 1991 he could feed 59 consumers. The reason is rapid technological progress. In agriculture there are three categories of technological change: (i) biotechnology, (ii) mechanical progress and (iii) organizational technical progress (Erjavec, 1995, p. 27).

Economists define technology as a stock of available techniques or a state of knowledge concerning the relationship between the inputs and a given physical output. Technological change means an improvement in a state of knowledge resulting in enhanced possibilities for production (Colman et al., 1993, p. 53). The technological change shifts the production function in two different possible ways such as (i) producing higher output with the same quantity of inputs or (ii) producing the same output with the smaller quantity of inputs (Erjavec, 1995, p. 27). The technological change is highly dependent on investment, which is one of the major problems in agriculture. Compared with other sectors investments in agriculture are higher due to the low level of fixed capital mobility. Investments are specific and not transferable, i.e. the value of a stall for cattle is lower than the value of the same stall, which is reconstructed for pig-breeding. Farmers are therefore forced to stay in the same farming activity (Erjavec, 1995, p. 30).

Figure 5: Technological change and the total product curve



Source: Colman et al. (1993, p. 54).

Technological change shifts the supply curve upwards and to the right, because the farmer produces the same quantity at a lower price or a larger quantity at the same price. Technological change impacts also the total product curve, isoquant and production possibilities frontier. When

introducing a new wheat seed variety, which increases the output in response to fertilizer usage, the adoption of better quality seed input into the production process shifts the total product curve upwards. This results in higher quantities of wheat at the same level of fertilizer usage or alternatively the same quantity of wheat can be produced at a lower level of fertilizer usage. Here we are assuming that all inputs other than fertilizer are held fixed (Erjavec, 1995, p. 31).

In agriculture farmers are confronted with the effect of the technological trap in agricultural production. With the introduction of more and more technological changes the supply curve shifts strongly to the right. As already explained above, this results in constant output growth and a reduction in market prices of agricultural commodities. Consequently, farmers are faced with a trend of falling market prices. Consequently farm household income is decreasing and farmers are trapped in the constant adoption of the newest technological cognitions into farming activity (Žižmond, 1995, p.101).

The technological change in agriculture is usually labour saving, producing the same level of output by reducing labour usage more than capital usage. When farmers introduce new machinery, equipment or change the organization (at the constant factor prices), this leads to higher labour efficiency. Since the technological change impacts the machinery-labour ratio and shifts the isoquant towards machinery, the effects of substitution of work with machinery appear (Erjavec, 1995, p. 29).

Technological progress has been evident in both cultivation and husbandry methods and overall managerial skills of the farmer. Much of the technological change is labour-saving (in the case of most machinery) or land-saving (as with the high yielding varieties and fertilizers) (Colman et al., 1993, p. 57).

In agriculture the majority of innovations are compensating the labour input. When using new machines, equipment or changing the farm's organization, the labour efficiency increases. New technologies need to be developed and their use encouraged. The research and development of the new technologies and technological improvements are financially stimulated by the government, but they are induced by the relationship between the production prices and input prices. The new technologies are then transferred to the producers. Through the educational and consulting process the model of research – training – consulting is developed (Erjavec, 1995, p. 30).

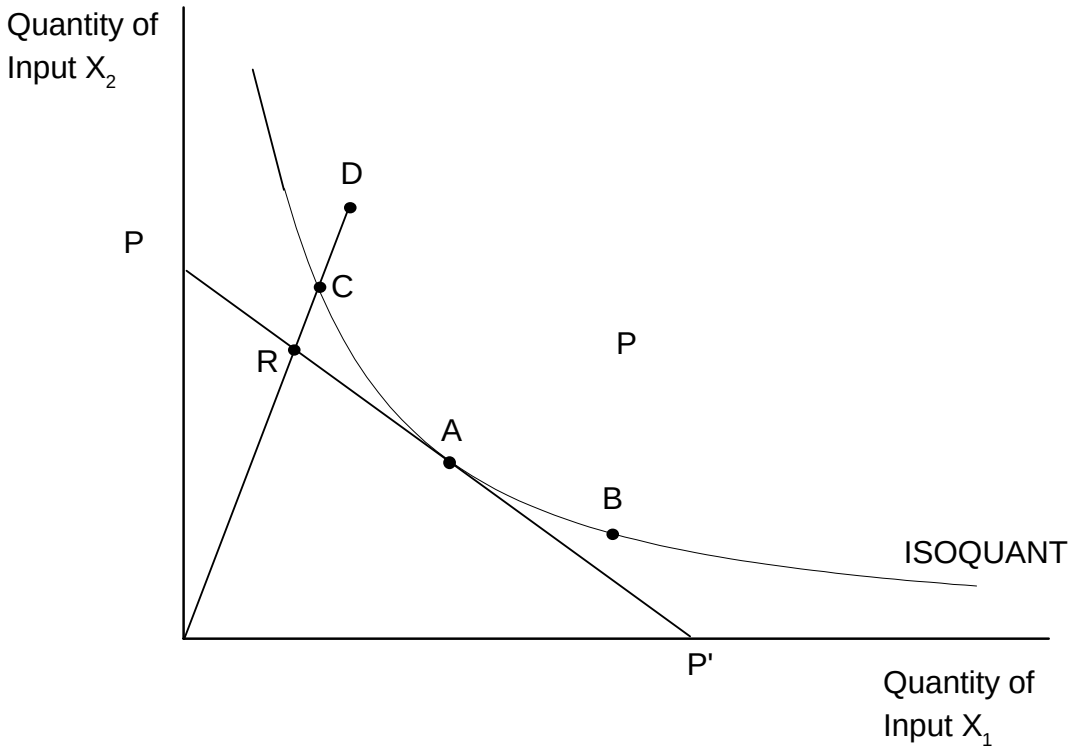
Along with the supply analysis the *economic efficiency* is discussed next. "A measure of producer performance in response to economic incentives is often useful for policy purposes and the concept of economic efficiency provides a theoretical foundation for such a measure" (Colman et al., 1993, p. 49). The concept of economic efficiency was set by Farell (1957), who argued that efficiency could only meaningfully be estimated in a relative sense, as a deviation from the best practice of a representative peer group of producers. He introduced the distinction between *technical efficiency* (where maximum output is obtained from a given set of inputs) and *allocative efficiency* (where given input prices, factors are used in proportions which maximise producer profits). The technical efficiency refers only to the physical characteristics of the

production process. It can therefore be applicable in any economic system. On the other hand the allocative efficiency is an overall economic efficiency on the presumption that the entrepreneurs' (farmers') goal is profit maximisation. The economic efficiency measure is as follows:

economic efficiency = technical efficiency x allocative efficiency

Figure 6 shows an isoquant for a group of farms using inputs X_1 and X_2. An Isoquant is a curve showing all possible combinations of inputs that yield the same output (Pindyck et al., 2001, p. 20).

Figure 6: Farell's efficiency indices



Source: Colman et al. (1993, p. 50).

Farms located on this isoquant use the least amount of input to produce a unit of output. The letters A, B, C and D present the farms producing one unit of the product. The farms A, B and C are located on the isoquant and this means they are technically efficient, but farm D is technically inefficient, because it produces the same output as farms A, B and C but uses a higher level of input. We are measuring the technical efficiency for farm D as OC/OD, i.e. farm D could reduce both inputs in proportion OC/OD and still produce the same level of output - one unit (Colman et al., 1993, p. 51). The allocative efficiency is measured by isocost line. It describes the possible combinations of inputs that can be purchased for a given total cost (Pindyck et al., 2001, p. 218). Given the relative input prices, the isocost line PP' on the figure 6 indicates the minimum cost of producing one unit of output. Therefore the overall economic efficiency is greatest at farm A, because it produces the same output as farms B and C (one unit)

at minimum cost. Allocatively farms B, C and D are allocative inefficient, because they have higher costs for inputs when producing the same level of output as farm A and their profit is not maximised.

(2) Production structure, relative prices and weather conditions

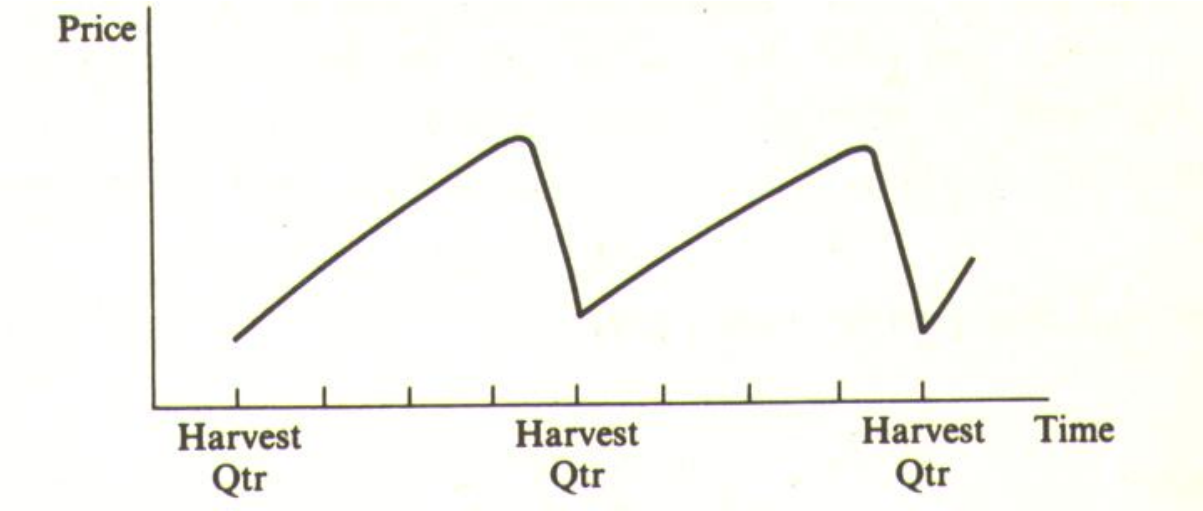
These three factors are important especially for developing countries, specifically for those which are dependent on the production of only certain agricultural commodities, because these products are exposed to large price fluctuations in the global agricultural market. The introduction of new technologies in the developed world further deepens this problem, while the demand for certain natural inputs decreases. Appropriate structural and economic policy must be introduced to ensure sustained development in agriculture, because with the changes in agricultural commodities, the production structure and with technological change we can greatly increase the food supply (Žižmond, 1995, p. 113). Plant production is highly influenced by the weather conditions therefore it is impossible to forecast the production output. Good and bad weather conditions result in price fluctuations. In this situation governments play key role, if they want to ensure the stability of the agricultural market (budgetary supports, balancing the market inventories, etc.).

Since the objective of this thesis is to set up a restructuring plan, the dynamics of agricultural markets are discussed next. Specifics of agriculture are the long production cycles of the commodities, which can even last several years (fruit-growing, wine-growing).

Farmers are planning production on the basis of past market prices. They develop an expected price. There is a process of a gradual establishment of an expected price based on past prices resulting in cyclical fluctuations of prices. Fluctuations depend on changes in current prices, expected prices and supplied quantities. Higher current price encourages higher quantities supplied, which at a certain point exceeds demand. Consequently this leads to price reductions, therefore the farmers reduce the quantity produced and this forms a cycle. This phenomena is known as the Coweb model. It explains the regular cyclic fluctuations around the equilibrium, which is reached gradually (Colman et al., 1993, p. 150). A special type of cycle is characteristic in the pig market.

When a product can be stored, market clearing is facilitated not only by price adjustments but also by changes in the level of stocks or inventories. This is particularly important in many agricultural product markets, since it permits supply, which becomes available at a specific point in the year, to be matched to a more regular pattern of demand. Therefore the level of inventory largely impacts the market price of agricultural commodities (i.e. corn, potatoes, fruit). Small farmers do not have enough storage capacities available and so they must sell their output to the wholesalers and processing industry at harvest time, when the prices are relatively low. The market price is low at harvest time (since supply is large relative to demand) and rises, as a function of storage costs, to a peak prior to the next harvest. As the market anticipates the increased quantity and lower prices, which the new harvest will bring, price tends to fall quite rapidly a month before the next harvest (Colman et al., 1993, p. 148).

Figure 7: Typical seasonal patterns



Source: Colman et al. (1993, p. 148).

(3) Organic food

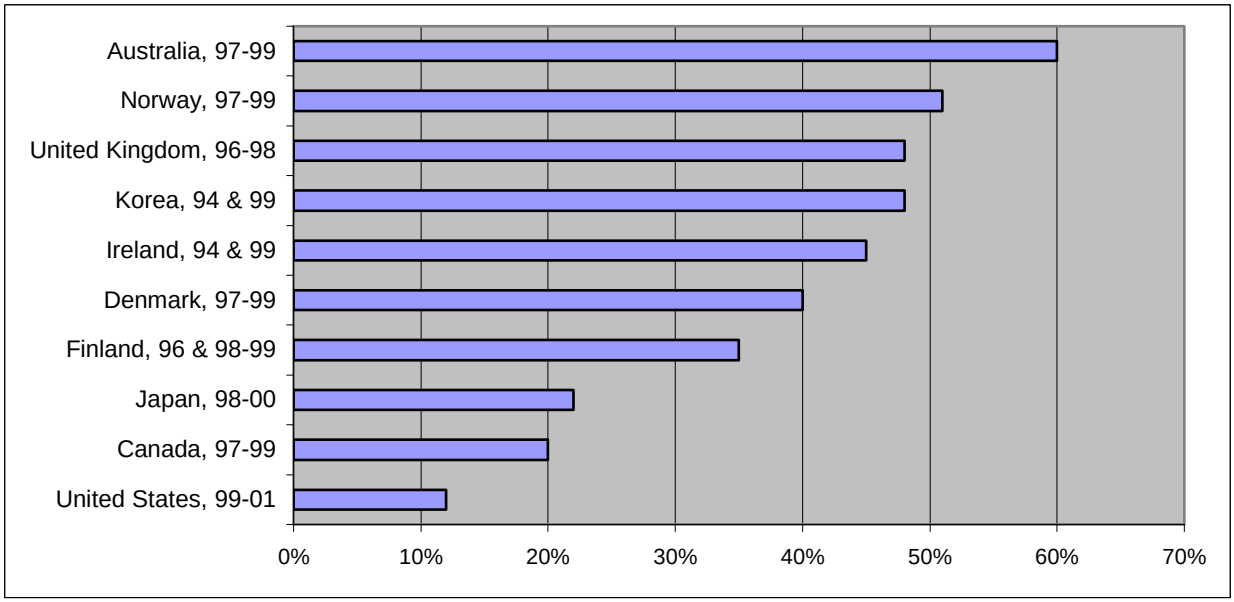
In the last few decades the demand for organic food has increased. Despite of the higher prices of organic food the quantity demanded is higher than the quantity supplied, therefore the retailers hardly follow the expectations of consumers. The population with a higher level of income and higher level of awareness consumes organic products. This group of customers is not price sensitive. Therefore the price is not in question, but the quality and labelling are (Žižmond, 1995, p. 114).

1.2 FARM HOUSEHOLD INCOMES IN DEVELOPED COUNTRIES

One of the major reasons for governmental interventions in agriculture is the unresolved question of the farm household income being gained only by farming activity. With the growth of the economy and technological progress the quantity demanded lags behind the quantity supplied. This leads to a constant trend of decreasing prices of agricultural commodities and consequently the farm household income for farming is lagging behind the average income. The emerging income disparity brings us to the conclusion that the farms should be enlarged and that productivity should be raised. But Erjavec (Erjavec, 1995, p. 91) claims, that this is not a solution, because in agriculture we are dealing with both labour and land immobility. Such allocation of production factors and consequently the unsolved income question cause the government intervention.

The farm income question clearly stresses the relationship between income and the size of the farm or production facility. The reasons for larger size farms are: (i) higher net income (per farm and per average work unit); (ii) lower costs per product unit – lower production costs (lower fixed costs per unit); (iii) better usage of production factors and equipment (machinery, equipment); (iv) profit from advantages of technical changes; (v) enhanced specialisation and division of labour and (v) improved market position.

Figure 8: Percentage share of farm income in total income of farm households (average of three most recent years available) in OECD countries



Source: OECD (2003, p. 19).

Experts that conducted the OECD survey (2003, p. 18) report, that farm households earn a significant share of income from off-farm sources (figure 8). Other income sources include salaries and wages from other activities, investment incomes (i.e. interests), dividends, rents, social transfers from health, pension, unemployment or child allowance schemes. However, in majority of households wages and salaries are the main source of off-farm income. Therefore the farm household income is generally more stable than farm income. The average income of farm households is close to economy-wide average. Farm household incomes are significantly higher in the Netherlands, Denmark, Finland and Belgium (by over 15%), and significantly lower in Greece, Korea, Turkey and Switzerland (by over 15%).

Both farm and total income increase with the farm size. A higher incidence of low income in farm households suggests that opportunities for off-farm activity may be restricted for some farm households. Such opportunities are relatively limited in remote rural areas, for persons with lower educational level and for older people (OECD, 2003, p. 25).

1.3 GOVERNMENT SUPPORT

Economists usually favour the positive consequencies of the free market on society and are opposed to any form of market protectionism. On the other hand some experts in agroeconomics argue that market protectionism in agriculture is a fact, which has both economic and political justification. They claim it would be useful to find the optimal levels of moderate protectionism and protect certain individual products or product groups (Erjavec, 1995, p. 88). Agricultural policy must be derived from an understanding of the fundamental economic and social characteristics of the agricultural sector. The agricultural sector has its specifics which are not

present in other sectors. All these specific characteristics are influencing the intensity, profitability and competitiveness of farming. Therefore experts in agroeconomics and politicians should try to find the best possible solutions to problems which are negatively influencing agricultural markets (Turk, 2001, p. 21-25). However, in agriculture these problems appear (Turk, 2001, p. 21-25; Kovač, 2002, p. 11):

- ✓ weather highly impacts the quantity produced and supplied which hinders the forecasts of future production levels, good or bad weather conditions highly influence the supplied quantities and price fluctuations;
- ✓ low level of fixed capital mobility; agricultural fixed capital has predominantly less value when it is used outside the farming activity;
- ✓ farming activity is not dynamic, because the production cycle is essentially slower compared to other activities – gestation period – therefore the farmers react more slowly to the price changes than other producers do;
- ✓ exceeded supply on worldwide agricultural markets, because the technological change drives increased supply of agricultural products; demand for food could not follow the supply;
- ✓ role of farm structure, above all the size and fragmentation of farms;
- ✓ insufficiency of inputs and low mobility of inputs (land, capital and labour).

Farmers persist in farming activity that is not vital abnormally long. This is a major economic problem in agriculture which can be solved by the appropriate state intervention (Kovač, 2002, p. 11).

In the past government intervention was to protect farming activity and to increase the production output. Government intervention is reasonable because of the following factors (Erjavec, 1995, 99):

- ✓ farming uncertainty, fluctuations in outputs, agricultural markets' instability, farming household income instability (i.e. state intervention is a necessity especially in less favourable areas);
- ✓ food security function, which brings benefits to the whole of society;
- ✓ state impacts on other economic factors in society, whether positive or negative;
- ✓ market power (monopoly) of the food processing industry, which is the major trading partner to farmers (i.e. farmers are buying inputs from the industry and sell to the industry their products),
- ✓ small producers faced with a liquidity problem; market mechanisms do not provide the equity and fairness principle among producers, therefore governments ensure also farmers, that are not vital, health and social support.

Among other reasons for market protectionism the economic arguments are: (i) safeguards; (ii) adjusting the balance of trade; (iii) ad hoc subsidies to non-competitive industry; (iv) anti-dumping measures; (v) active employment policy and encouragement of income parity (Erjavec, 1995, p. 98). In short the government's reasons for promotion and protection policies take into account consideration for national defense, income equity, stability, efficiency, conservation, progress, economic growth, national prestige.

Market mechanisms can not solve the problems in agriculture. Because of the human limitations on food consumption the demand for food is not increasing anymore, when income reaches a certain level. When the physiological need for food is satisfied we focus our consumption on other products. On the other hand there is a problem with excess supply, due to technological change. Since demand increases only up to certain level of income, demand and supply are not equal. Consequently prices are falling. Agriculture faces the negative impacts of technological change, because without it there are no additional profits and with it prices are falling (Colman et al., 1993, p. 148).

I would support Greer (1993, p. 524), who states, that many of the promotion measures are motivated by special interest politics. Today, governments intervene through promotion and protection policies. In agriculture they intervene mainly because of insufficient farming incomes. In the majority of countries governments intervene through market price supports. The objective of this policy is to maintain an adequate price level for domestic producers (Kovač, 2002, p. 13).

In the developed world the roll of government intervention is changing towards structural development support and rural development support. Structural support includes direct payments to support other farming functions, investment supports, human resources development support, processing and marketing support, forestry support, supporting development incentives for rural development (Kovač, 2000, p. 13-14).

Four major classes of promotion policies, mentioned by Greer (1993, p. 524), are: (i) direct subsidies, (ii) loans and loan guarantees, (iii) import protection and (iv) price support. Since direct subsidies were used in the past in EU and Slovenian agriculture they will be explained next. In the following section the impact of subsidies on the free market will be discussed.

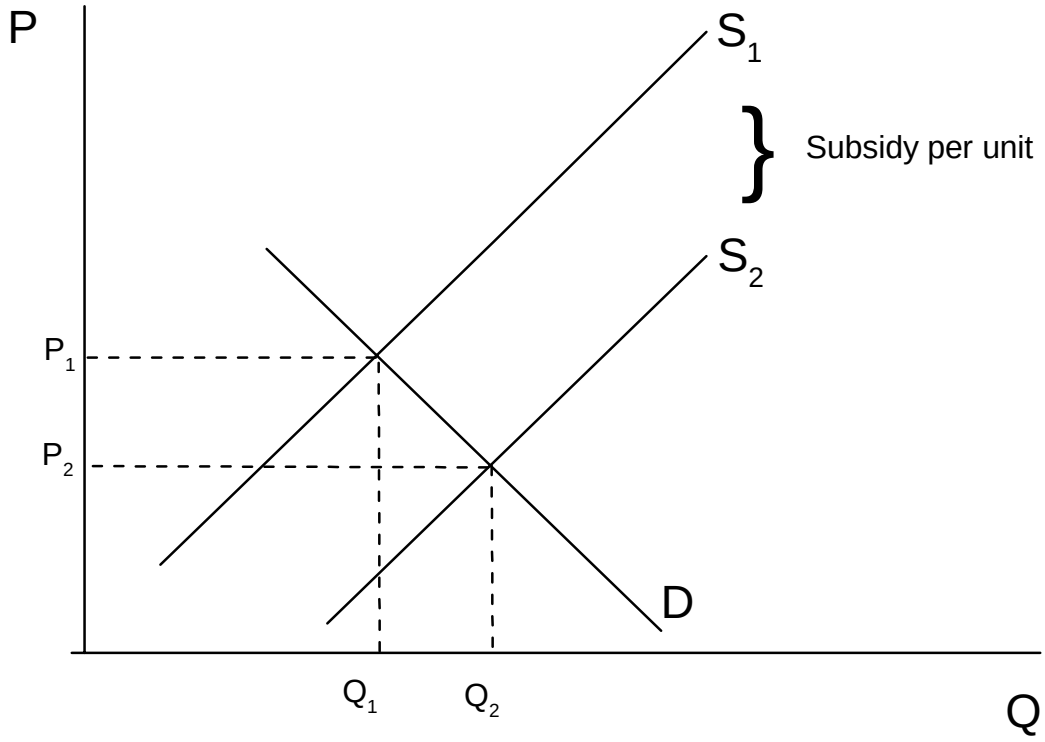
1.3.1 Direct subsidies

Authors define subsidies differently. The general definition of subsidies involves two major features. First, they stress that subsidies merely modify markets rather than totally supplant them. Second, they specify the limited scope of subsidies, thereby stressing sectoral favouritism. Different forms of subsidies have various impacts on the marketplace, therefore it is possible to categorise them. Direct subsidies might be: (i) tax breaks (i.e. for favoured goods or services); (ii) direct payments (i.e. production or consumers' incentives); (iii) government ownership and operation.

The impact of such direct subsidies is shown in figure 9. Assuming pure competition, S_1 represents supply without subsidy and embodies all per-unit costs of production various quantities of commodity in question. Free market price and quantity will then be P_1 and Q_1. A subsidy has the effect of lowering cost per unit, and thereby the supply curve S_1 sifts to S_2. The distance between both supply curves is the subsidy per unit at any given quantity. The subsidy lowers the price charged to buyers below that necessary to cover the full unit cost. Taking into account the demand, the result is a lower price P_2 (despite real unit costs at C), and a larger

quantity at Q_2. If the direct subsidy increases quantity above free market level, such subsidy may serve legitimate economic purposes. If too little quantity is provided, then a subsidy would be warranted insofar as the benefits of the added quantity exceed the costs of the added quantity.

Figure 9: The impact of direct subsidies



Source: Greer (1993, p. 525).

2 AGRICULTURE IN THE EU

2.1 AGRICULTURE IN THE EU ECONOMY

Since the statistical data needed to cover the objectives of the thesis was available only for the year 2002 all the EU data included in the thesis is the data for the EU-15 member states prior to the accession of Slovenia to the EU.

Table 1: Selected agricultural statistics for EU-15 and acceding countries, 2002

	Utilized area ('000 hectares)	Final production (€ Million)	Share of household consumption expenditure devoted to food, beverages and tobacco[a] (%)	Share of employment in civilian working population[b] (%)
Austria	3,387	5,704	15.5	5.7
Belgium	1,393	7,056	16.3	1.8
Cyprus	144[c]	..	32.7	5.4
Czech Rep.	3,652	3,283	26.4	4.9
Denmark	2,690	8,348	17.4	3.2
Estonia	890[c]	475	32.7	6.5
Finland	2,216	4,288	18.7	5.5
France	29,622	64,813	14.3	4.1
Germany	16,971	41,454	16.2	2.5
Greece	3,917[c]	12,189	20.6	15.8
Hungary	5,867	6,077	27.7	6.1
Ireland	4,372	5,746	16.5	6.9
Italy	15,341	43,639	16.9	4.9
Latvia	2,480	587	32.9	15.3
Lithuania	3,487	1,067	38.9	18.6
Luxembourg	127	256	19.7	2.0
Malta	10	146	26.5	2.1
Netherlands	1,933[c]	20,114	14.3	2.9
Poland	16,891	13,241	28.0	19.6
Portugal	3,813	6,258	22.7	12.5
Slovak Rep.	2,240	1,677	28.7	6.6
Slovenia	506	1,062	22.0	9.7
Spain	25,554	37,335	18.8	5.9
Sweden	3,039	4,710	17.3	2.5
U.K.	15,722[c]	24,465	13.8	1.4
EC-15	**130,809**	**286,372**	**16.2**	**4.0**
C-10	**36,167**	**27,615[d]**	**28.3**	**13.4**

.. Not available.

a 2001.

b Employment in agriculture, hunting, fishing and forestry.

c 1999.

d Without Cyprus.

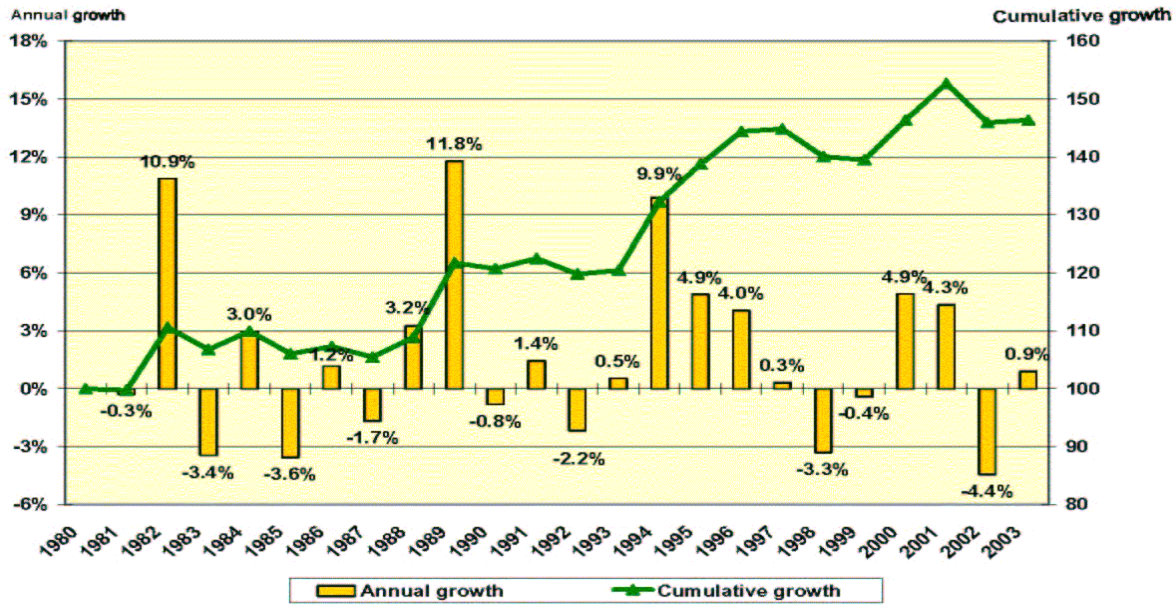
Source: WTO Secretariat (2004, p. 85).

The primary sector (agriculture and forestry) accounted for only 2% of the EU gross domestic product (GDP) in 2002, while the secondary sector (industry, energy, construction) accounted for about 27%, and the tertiary sector (commerce, transport, communication services, financial services, business services, other services) accounted for about 71% of GDP (Legislation in Preparation, 2004).

Based on the GDP criteria, the primary sector was the least important sector in the EU and it took the same position after the accession of the ten new acceding countries (C-10), while these bring 3.9% to the GDP (WTO Secretariat, 2004, p. 85). Although agriculture plays a negligible role in the EU economy, it is still an important sector for food security reasons.

Agriculture, including hunting, forestry and fishery activities, employed only 4% of the working population of the EU in 2002, showing that a small share of the population is employed in the primary sector. On the other hand there is a totally different situation in the C-10, where agriculture and related activities employed 13.4% of the total work force in the same year (table 1) (WTO Secretariat, 2004, p. 85). The statistical information shows that there is a large deviation in the share of the work force employed in the agricultural sector among the old and new member states. Although the agriculture of the new member states contributes slightly more to the GDP (3.9%) compared to the old member states, the new members are employing 13.4% of the work force in agriculture. We can conclude that a considerably higher share of the work force in the new member states contributes almost the same share of the agriculture to the GDP as the old members do. The reason for this might lie in the considerably lower productivity in the agriculture of the new members. The cultivated area of the EU accounted for 130.8 million hectares in 2002; in the C-10 it was 36.2 million hectares, with Poland accounting for almost half of this amount. The European Union currently has around 11 million farmers, of which close to 4 million are from the C-10. The average size of farms is about 19 hectares in the EU, and around 7 hectares in the C-10 (WTO Secretariat, 2004, p. 85).

Figure 10: Development of agricultural income in the EU-15[1] over the 1980-2003 (P) period, in terms of annual change (%) and cumulative growth (1980 = 100)



(P) Provisional

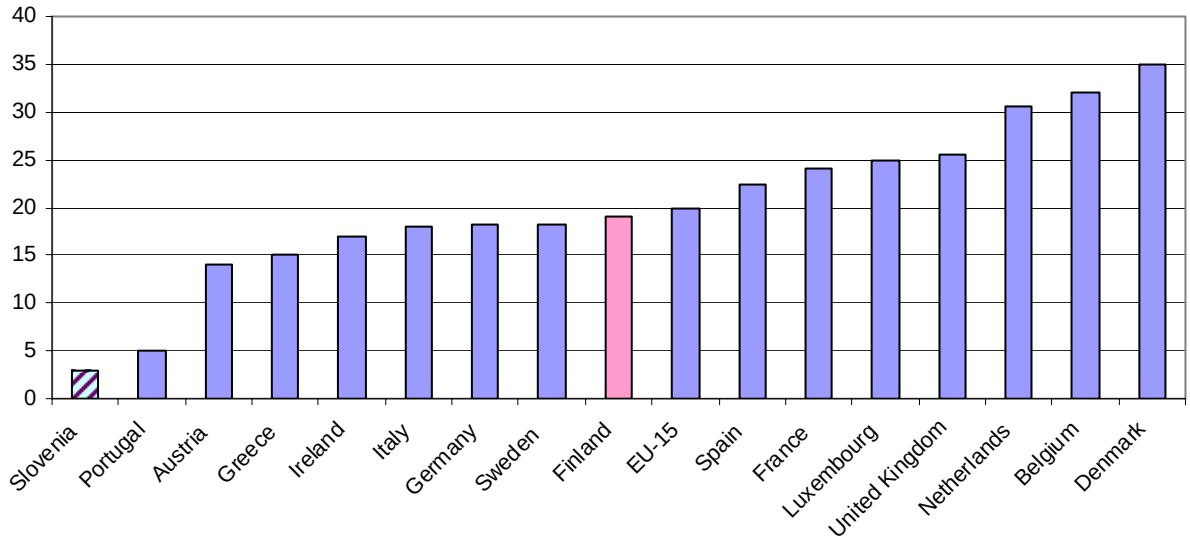
Source: DG Agriculture (2004, p. 25).

[1] EU-15 Member States before the accession of 1st May 2004.

The first estimates of the farm income movements in 2003 show an increase over 2002 of 0.9 % in average farm income (measured, in real terms, as the net value added at factor cost per annual work unit) for the European Union[2] (DG Agriculture, 2004, p. 20). Incomes were up in seven member states and down in the others, with the biggest increases in the United Kingdom, Belgium, Spain and Portugal and the biggest falls in Germany, Denmark, Austria and Finland. The main factor behind these changes is poor crop production due to the summer drought that was not always offset by adequate price increases, while in the livestock sector the primary drag on incomes was increased production followed by falls in milk and pork prices. Since movements in intermediate consumption costs did not generally offset those in production costs there is an estimated decline of 1.5 % in real terms in farm income for the European Union as a whole in 2003 (DG Agriculture, 2004, p. 20).

Lastly, the structural decline in the agricultural labour force, the final fundamental factor affecting income movement, is assessed at 2.4% in 2003 for the whole EU. Taking this into account, this gives an increase of just under 1% (figure 10) in farm income calculated per person (DG Agriculture, 2004, p. 20).

Figure 11: Gross Value Added per Annual Work Unit in EU-15 and in Slovenia



Source: EC (2004 a, p. 15).

Denmark, Belgium and the Netherlands – the northern countries of the EU - are the most profitable in the agriculture sector among the old member states. It is interesting that Luxembourg (having all its utilized area in the least favoured areas) has higher profitability than the average EU-15. On the other hand, Portugal, Austria and Greece are showing poor profitability (Figure 11).

Concerning the agricultural market's growth, the organic market is the most promising and it is not merely a niche market anymore as it was in the past. Increased consumer awareness of safety issues and environmental concerns has contributed to the growth in organic farming over the last

[2] The estimate is based on data from the 14 member states, while Greece is excluded.

few years. Although it only represented around 3% of the total utilized agricultural area in 2000, organic farming has in fact developed into one of the fastest growing agricultural sectors in the European Union (Organic farming, 2003).

The EU organic market size was 7.5 billion USD in 2002. In the past five years the markets for organic foods in EU member states were growing at the rate of 15%-30%. The share of the regular organic food consumers in the total number of consumers is between 20% and 30%. According to the market research data published by Ion Exchange Enviro Farms Ltd the interest in organic foods is strong among customers with higher income, mainly well educated consumers. The EU lists the demand expansion for organic foods. According to the International Trade Centre projections, the organic market size in 2010 is estimated at US$ 46 billion in the EU. Markets are evolving to demand highly processed organic products as well as raw commodities. In Europe, markets are expanding for ready-to-eat meals, frozen foods, baby food, snacks, and beverages. Organic food processing ingredients include juices, fruit powders, dried fruit, meat, flavorings, essential oils, herbs and spices, and nuts. The forecast for annual growth of organic food and beverages in 2003-2005 is estimated up to 15% in EU member states (Ion Exchange Enviro Farms, 2003).

The forecast on organic food and beverages for the EU shows that this market is going to grow in the next five years and it is a potential market especially for small and medium family farms being involved in traditional farming. Producing organic food is an opportunity for these farms to specialise themselves in organic farming.

2.2 FARM STRUCTURE IN EU[3]

Many factors such as region, structural characteristics of the farm and its household, and the economic environment (in particular, the opportunities for off-farm earning) affect the total income of the farm households (OECD, 2003, p. 21). Because the structural characteristics are one of the elements affecting the farm income, this is the part of the analysis in the concluding chapter, while the farm structure of the EU-15 is reviewed in this section. The structural characteristics help us identify the major agricultural structural problems leading to negative effects on the farm income. This section serves as a basis for comparison of the EU-15 and the Slovenian farm structure. The current characteristics of the EU-15 farm structure further indicate the structural changes introduced by the implementation of CAP. The analysis is based on the Agricultural Census Survey for 1999/2000 and analysis production factors (land and human resources), economic size of the agricultural holdings and the types of farms.

2.2.1 Land and land use

This section presents analysis of the changes in the total agricultural area, utilized agricultural area and number of holdings of the EU-15 member states in the last decade (between 1989/90 and 1999/2000). It is worth noting that there are large differences in the farm structure of the

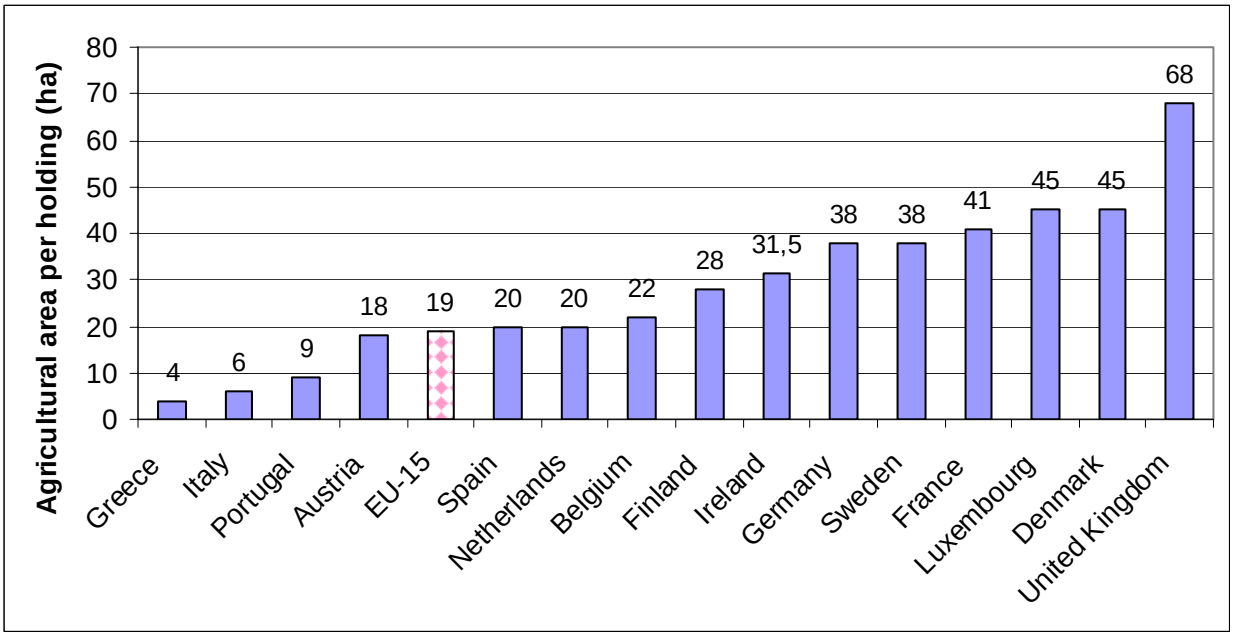
[3] Summarized from European Commission, Farm Structure, 1999/2000 Survey, 2003, Luxembourg.

EU-15 member states because of the large differences in the farm structure and agricultural policy of the EU-15 member states before accession to the EU. The goal of this analysis is to confirm the hypothesis that the farms in the EU-15 member states went through restrucutring changes which the new member states, including Slovenia, will face in the coming years.

The overall area allocated to agriculture in the EU-15 slightly declined to approximately 127 million hectares in 1999/2000. The utilised agricultural area (UAA) generally remained stable in nearly all member states in the last decade. The total number of holdings declined for 20% to 6.4 million in the last decade. Due to the general decline in the overall number of holdings and the rather stable level in the total agricultural area, the average agricultural area per holding has risen over time, reaching a level of almost 19 ha per holding. Generally we can conclude that the smallest holdings of the EU-15 member states were not able to survive therefore the UAA of those holdings was bought by the larger agricultural holdings.

Due to large differences in the average agricultural area per holding among the member states, farms from different countries are not able to compete with the same commodity on the Community market. How would for example the farmer producing cereals from Greece, having the smallest agricultural area per holding (4 ha), compete with the farmer from the UK, having the highest agricultural area per holding (68 ha)? The answer demands setting the proper national agricultural policy and the proper national restructuring programme for the sector.

Figure 12: Average agricultural area per holding (ha) in the EU-15 in 1999/2000



Source: EC (2003, p. 67).

It is interesting that all member states have experienced a clear rising trend in the average size of holdings, apart from two member states (Greece and Italy) having the smallest average agricultural area per holding, and the member state (the UK) having the highest average agricultural area per holding, where the average agricultural area per holding has remained rather stable. Therefore, the conclusion regarding the sales of the smallest holdings to the larger

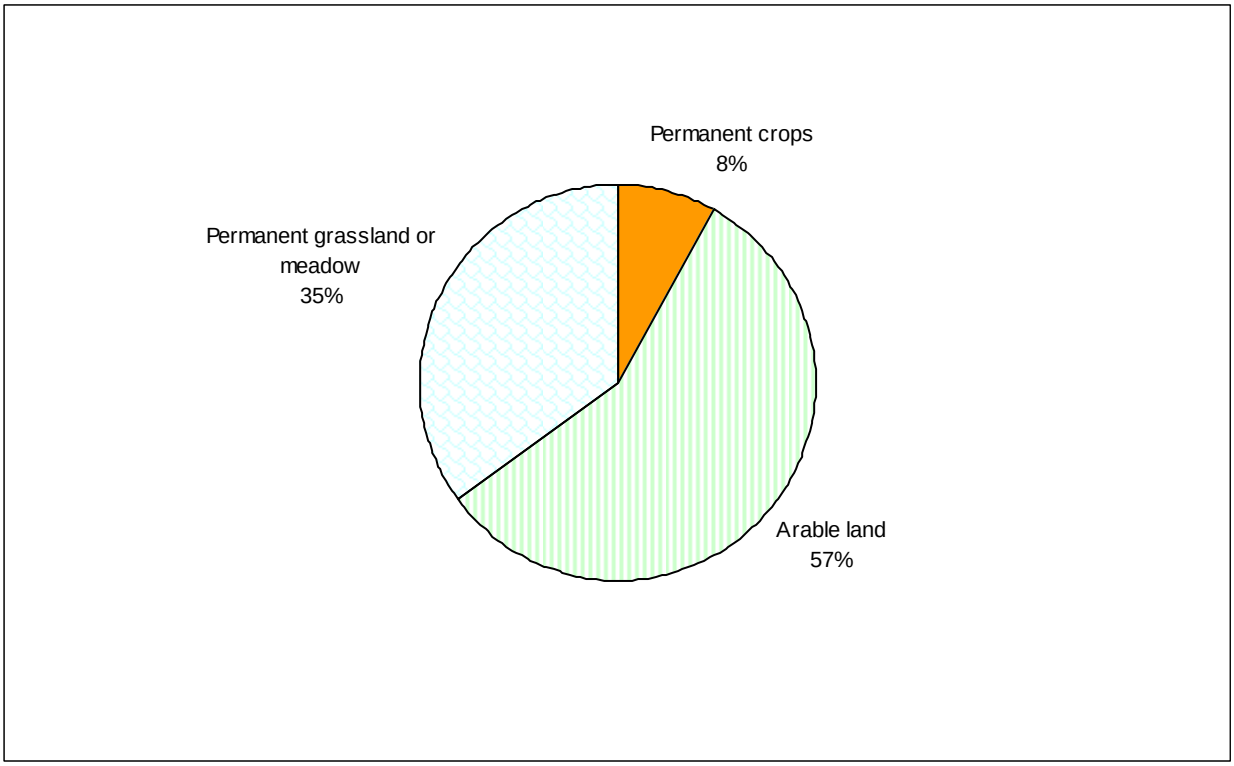
holdings might not be true for some member states, at least not for Greece and Italy, which have the smallest average area per holding while their average agricultural area per holding has remained stable.

Although Agenda 2000 included measures to solve the structural problems caused by the smallness of the farms, it was not successful, since the majority of European holdings are still relatively small in size, with 58% of all holdings using less than 5 ha. In Greece, Italy and Portugal, the proportion of small farms in the national total is even higher, with over three-quarters of holdings using less than 5 ha. The national proportion of such small farms is the smallest in Denmark, Ireland, Finland and Sweden. At the other end of the scale, holdings using more than 100 ha account for some 3% of the European total, with the largest proportion of these nationally being in the United Kingdom followed by Denmark, France and Luxembourg. Therefore we can conclude that the member states having the highest share of the smallest holdings have to promote competitiveness of those holdings to enable them to survive in the EU market.

2.2.2 Main uses of utilised agricultural area

The main usage of the UAA mirrors the importance of arable land, grassland and permanent crops for the EU –15. The share of arable land dominates followed by permanent grassland and meadows, with the remaining share used for permanent crops (Figure 13). Despite the increased demand for fruit on the market, the share of permanent crops (vineyards, orchards, etc) is is very small compared to the shares of both other uses.

Figure 13: Main uses of EU-15 utilised agricultural area in 1999/2000



Source: EC (2003, p. 73).

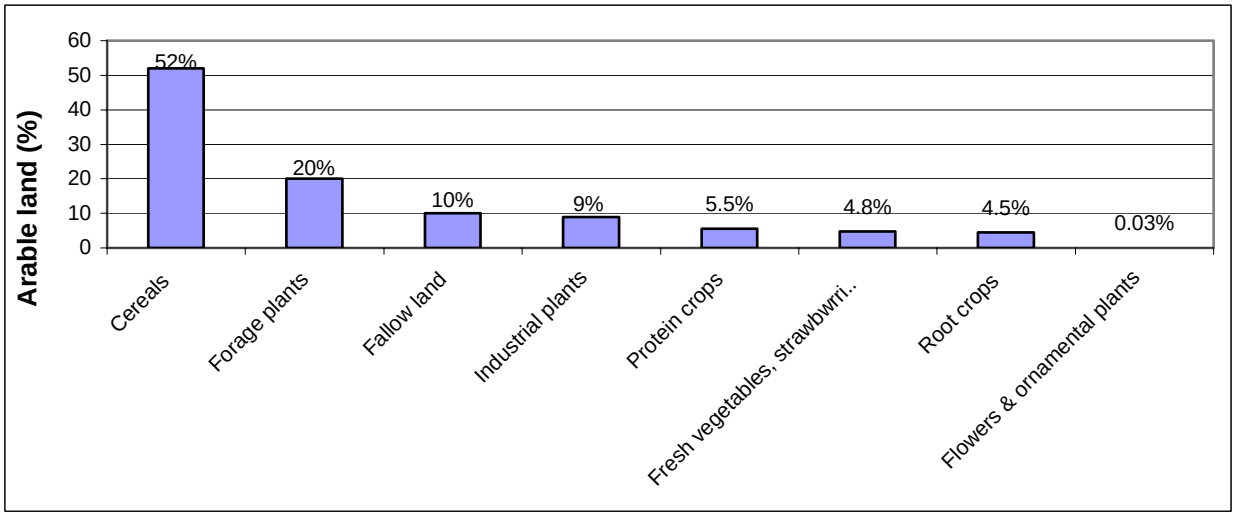
The main use of UAA in the majority of member states was as arable land, with France having the largest arable area followed by Spain and Germany. The combined arable area of these three member states alone accounted for some 60% of the total arable area in the EU-15, or a third of all utilised agricultural area.

The only member states where arable land did not account for the largest proportion of national UAA were Austria, Ireland and the United Kingdom, where the areas allocated to permanent grassland and meadows were more important. In terms of area allocated to grassland and meadows, the most important member states were Spain and the United Kingdom, followed by France and Germany. The grassland and meadows in these four countries cover together 72% of total permanent grassland and meadows. The bulk of the area dedicated to permanent crops was located in just five member states (France, Greece, Italy, Portugal and Spain), which together accounted for 96% of all permanent crops area, and with Spain having the largest such area among all members.

2.2.3 Arable crops

Among the arable crops, the production of cereals prevails, followed by forage plants, industrial plants (including oilseeds, hops, cotton, linseed, textile crops, tobacco etc.) and root crops (including potatoes and sugar beet), with some 10% left as fallow land. The production of ***cereals*** was clearly the most important use made of arable land. France was the member state having the largest cereals area, followed by Spain and Germany and with these three member states together accounting for more than 60% of the total cereals area.

Figure 14: Main uses of EU-15 arable land in 1999/2000



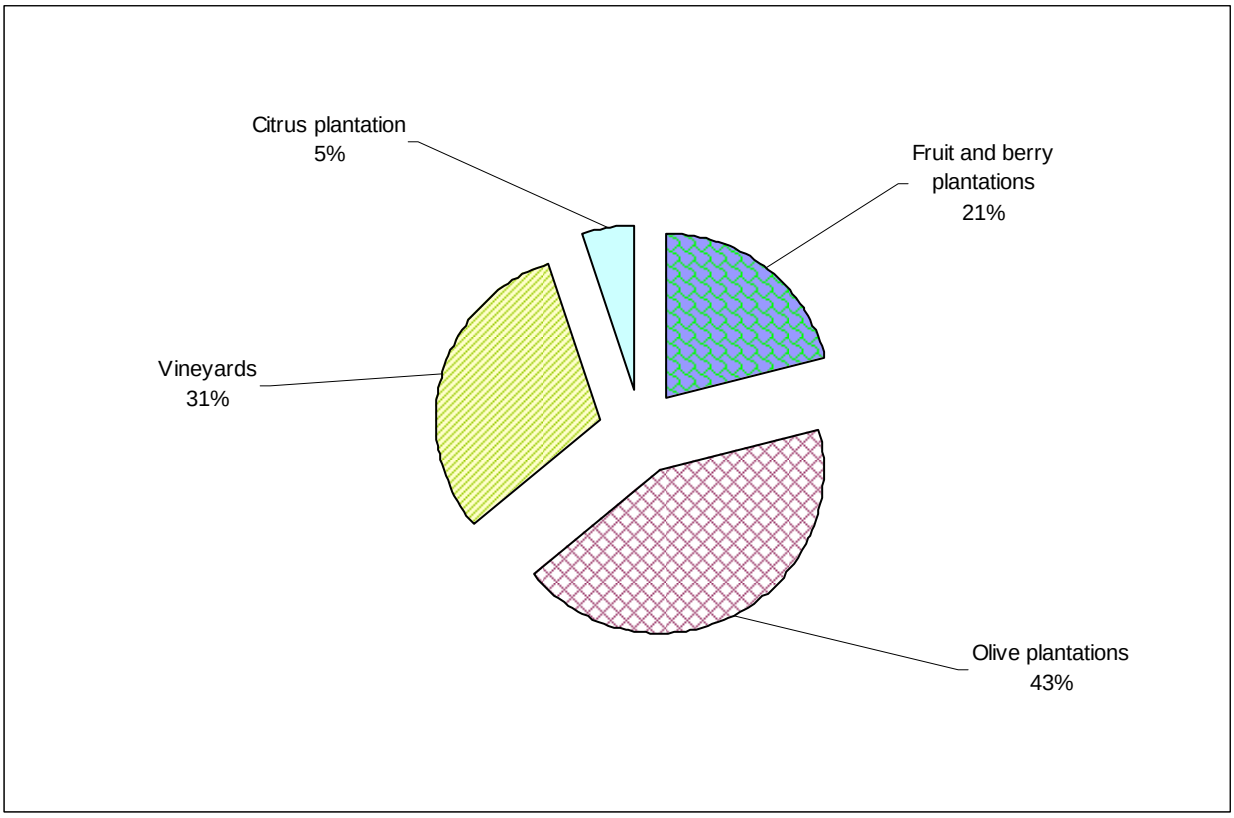
Source: EC (2003, p. 75).

Among the other uses of arable land, approximately 6% of the land was allocated to the production of protein crops (including peas, field beans, and lentils) and a combined total of 5% of the arable land to the production of fresh vegetables, strawberries or melons. A negligable

share of the land was allocated to the production of flowers and ornamental plants that actually have the highest ESU (Economic Size Unit). The largest area used for flowers (39% of the EU-15 total) was in the Netherlands. In the arable land the shares of usage for fresh vegetables, fruit and flowers are surprisingly small.

The area utilized for the permanent crops has a Mediteranean theme, since it is entirely located in Spain, Italy, Greece, Portugal and France. Among the permanent crops, the greatest area was utilised for ***olive plantations***, which was almost entirely located in just four member states (Spain, Italy, Greece and Portugal). The second most important permanent crops are ***vineyards***, with some 85% of total vineyard area located in just three member states; Spain, France and Italy. The remaining permanent crop area was allocated to ***fruit and berry plantations*** and the smallest portion to ***citrus plantations*** (both mainly located in Italy and Spain).

Figure 15: Area allocated to permanent crops in the EU-15 in 1999/2000



Source: EC (2003, p. 76).

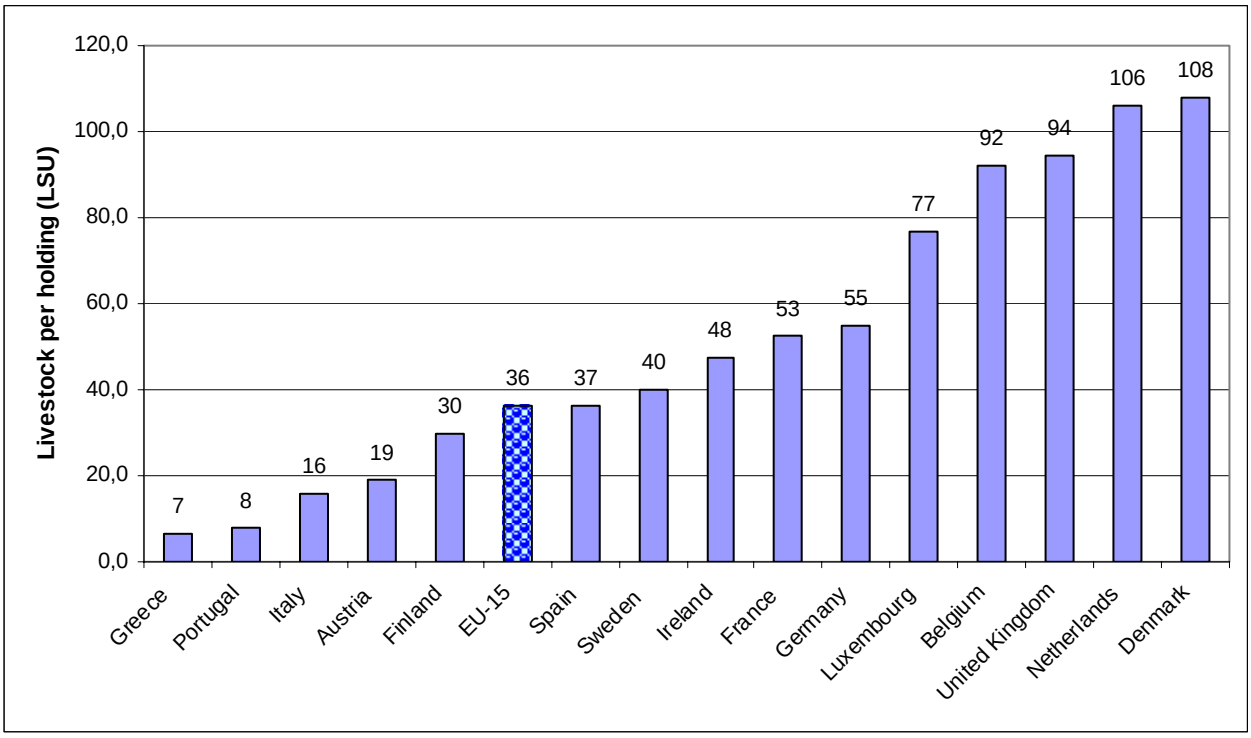
2.2.4 Livestock

Half of the EU-15 holdings are involved in livestock breeding. An average livestock density per holding is 36 livestock units (LSU)[4]. There is the declining trend in the number of holdings with livestock in the EU, and the increasing trend in the average number of livestock per holding. This shows the structural change towards more intensive livestock breeding.

[4] Livestock unit (LSU) is a reference unit common to the various categories of animal and relating to their feed requirements.

The highest rises in livestock density were reported in Belgium, Denmark, France, Luxembourg, the Netherlands and Spain. In the individual member states, the number of holdings with livestock fell considerably over the 1990s (Italy, France, Spain, Portugal, Germany and Greece). Despite the large decrease, Italy continues to have the largest number of holdings with livestock compared to the others. There will therefore be a strong competitive pressure in marketable livestock from Italy on the Slovenian market after Slovenia's accession into the EU. Although the number of holdings with livestock has fallen throughout the EU, the total number of livestock has remained fairly stable and maintained stable livestock EU-15 production levels.

Figure 16: Average number of livestock per holding in the EU-15 in 1999/2000



Source: EC (2003, p. 79).

The leading member states breeding livestock were France, Germany, UK and Spain breeding together 63% of all livestock in LSU terms. Half of the total EU-15 livestock was ***cattle herd***. The ***pig herd*** accounted for a quarter of EU livestock, followed by ***poultry*** (13%) and ***sheep*** (9%). C***attle livestock*** dominated in France, Germany and the UK, which together accounted for over half of the total herd in LSU terms. ***Pigs*** are strongly represented in herds in Germany and Spain. France was the leading producer of ***poultry*** (a third of the total stock), followed by Italy and Spain. Germany, the Netherlands and the UK also had sizeable poultry livestocks. The UK was the leading ***sheep*** producer with 40% of the EU total, followed by Spain, France and Greece.

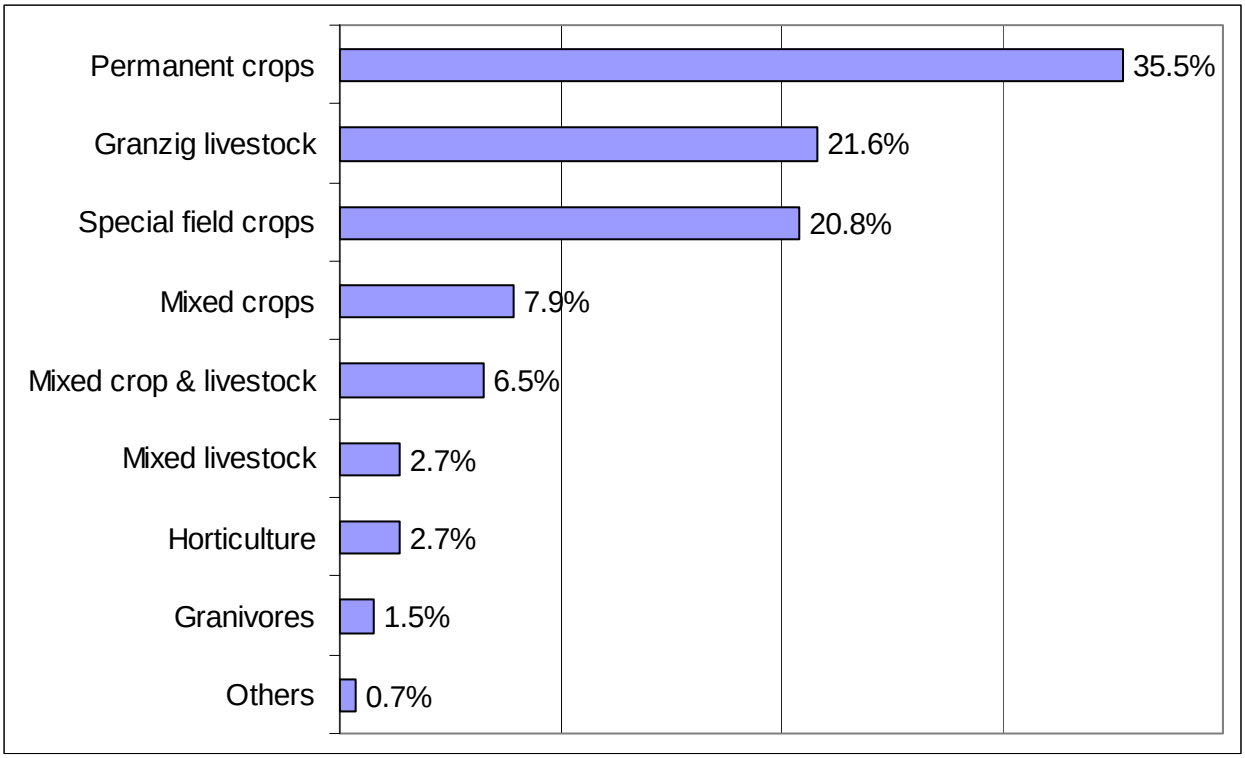
2.2.5 Type and system of farming

With regard to the type of farming across EU holdings, the largest number of holdings were specialised in the production of permanent crops (i.e. vineyards, olive groves or orchards), a large part of which were located in Italy. Holdings specialising in grazing livestock and in

production of field crops were the next most numerous. Of the remainder, 17%, were mixed holdings (specialising in mixed cropping, mixed livestock or mixed crops and livestock), and 2.7% were specialised in horticulture and 1.5% in granivore production (figure 17).

In terms of utilisation of total agricultural area, a somewhat different picture emerges. The largest proportion of agricultural area by type of farming was that allocated to farming specialised in grazing livestock (almost 46 million ha, or 36% of the total EU agricultural area, and with almost 10.7 million ha used for this purpose in France alone), closely followed by the area used for farming specialised in the production of field crops (32%).

Figure 17: Distribution of EU-15 utilised agricultural area by type of farming in 1999/2000



Source: EC (2003, p. 74).

While the most important in terms of the number of holdings, farming specialised in permanent crops accounted for a much less important share of the overall area, some 8% of the total EU utilised agricultural area. The area allocated to mixed farming amounted to around 20% of the agricultural area, while that allocated to the farming of granivores and to horticulture accounted for only around 1% and 0.6% respectively. Concerning systems of farming, some 2% of EU holdings practised organic farming, with this being most common in Sweden (11%), Austria (9%) and Finland (6%). A similar level of 2% also applied in the EU to the proportion of total holdings farming crops under glass, although the countries where this system was most common were the Netherlands (11%) and Belgium (6%).

2.2.6 Human resources

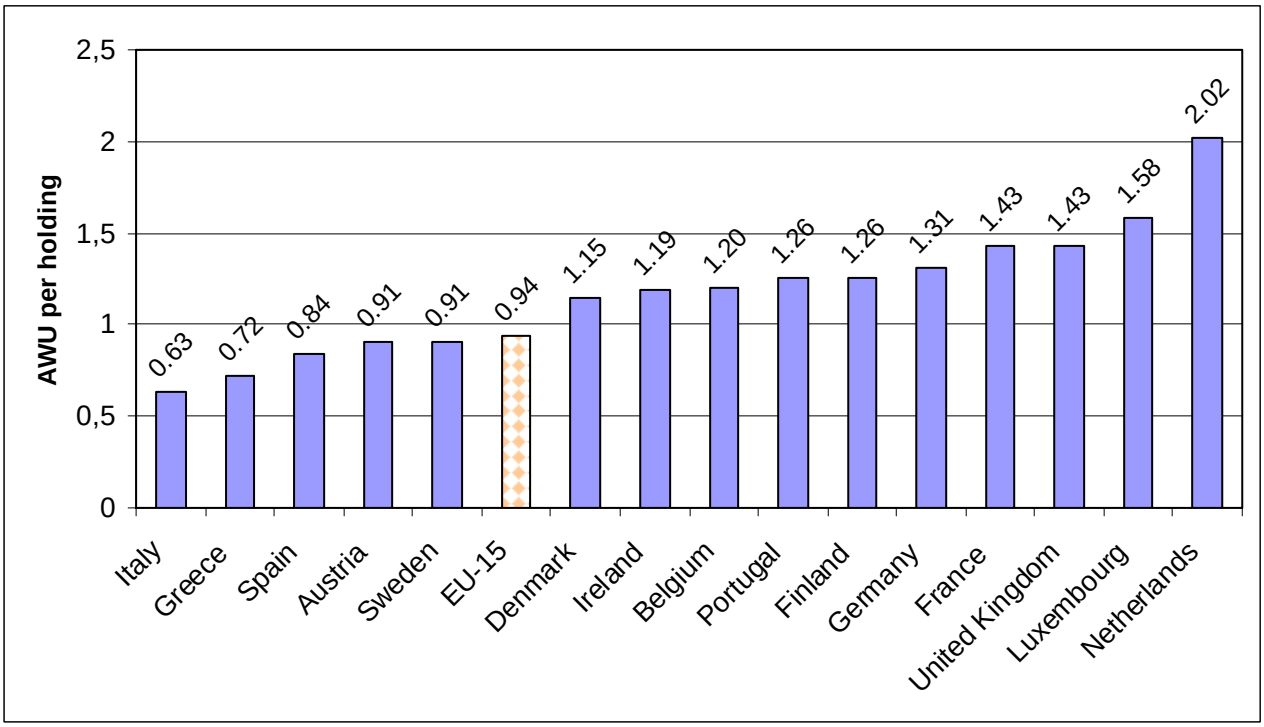
Of the natural resources, human resources represent a decisive production and productivity factor in the agricultural sector. The total agricultural labour force is measured in annual work units

(AWU's), which represent the equivalent of one person employed full time for one year. The total agricultural labour force amounted to 6.3 million AWUs in 1999/2000, showing a decline from 7.3 million AWU's in 1995. On the basis of the statistical data we can conclude that the number of persons employed full-time in the agricultural sector fell considerably in the last five years (by 1 million), now stabilised at 5% of the working population. Nonetheless, this number is still low relative to Slovenia, where 10% of the population is employed in agriculture contributing to 4.9% of the GDP.

Almost three-quarters of the labour force represent the family labour force, 16% are regularly employed non-family labour and 10% is non-family labour not in regular employment. Since the family labour force is strongly represented in the structure of the labour force of the EU-15 we may conclude that family farms dominate and that the majority of the family labour force is probably working without payment since only 16% of the farmers are non-family regular employees.

The average amount of agricultural labour per holding for the EU-15 as a whole declined to 0.94 AWU in 1999/2000, with a significant decline occurring over the last three years of the decade. However the evolution in average labour per holding varies noticeably across member states. In Belgium, France, the Netherlands and Spain the average amount of labour generally followed a rising trend over the 1990s, while most other member states saw a decrease in the average level of labour over the same period. Of all the holdings surveyed in the 1999/2000 survey, 36% of holdings used more than 1 AWU. The average amount of labour per holding for the EU-15 shows that 63% of the farms are not able to survive with farming alone, especially in members having a small average agricultural area per holding such as Italy, Greece and Spain.

Figure 18: Evolution of the average agricultural labour per holding (AWU) in the EU-15 in 1999/2000



Source: EC (2003, p. 70).

In the structure of holders EU-15 agriculture shows a lack of agricultural companies (a farm under the responsibility of a legal person) and partnerships (a group of physical persons in a group holding). The vast majority of farms in the EU had a sole holder (a single individual person, holding an independent farm). Of the rest, around 3% were companies and 1% by partnerships.

Of the sole holders who were also at the same time the managers of the holding, around three-quarters worked part-time on their holding, and 26% had another activity as their main employment. The situation with the holder manager having another gainful activity as a main occupation was most prevalent especially in Sweden, Germany and Denmark.

One of the most concerning problems in the EU-15 agriculture is a considerably high share of holders older than 65 years and holders aged 55 or more. In 1999/2000 more than a half of holders were aged 55 or more, with almost 30% aged 65 years and over, and only 8% of sole holders were in the youngest age range (under 35 years old). The prevailing share of older holders in the national picture was generally mostly listed in the Mediterranean member states. Austria and Germany had the highest levels of young farmers under 35. The age distribution of holders clearly shows that the younger generations do not decide to seek employment in farming. On the one hand they are not encouraged since the parents do not give land or holdings to younger family members almost until their deaths and on the other they do not see their future in farming.

2.2.7 Economic size of agricultural holdings

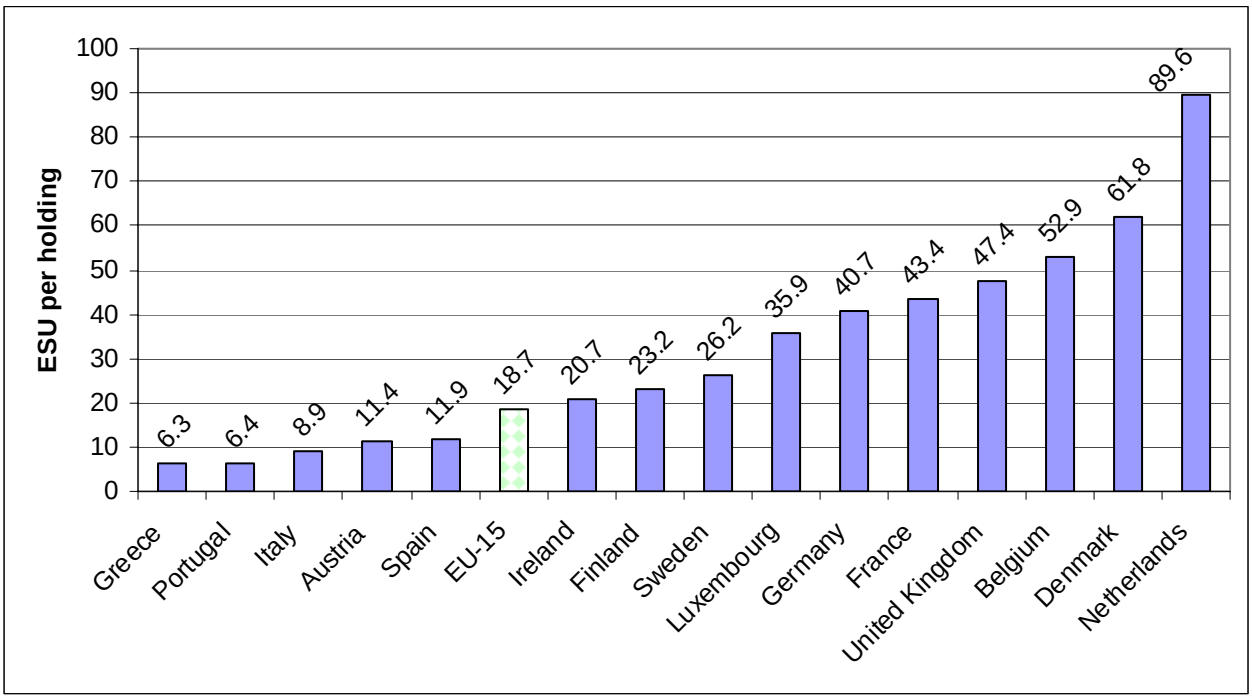
In assessing economic performance of a farm, one must take into account the potential income and specific variable production costs per unit. The European measure for the difference between the potential income and variable production costs per hectare or per head of livestock is called Standard Gross Margin (SGM)[5]. The average SGM per holding or economic size attained a level of 18.7 European Size Units (ESUs)[6]. Since 1 ESU equals 1200 EUR the average economic size per holding accounts for 22.400 EUR. Taking into account the changes of the ESU of the EU-15 member states in the last decade it is possible to maintain that CAP was implemented efficiently. The largest ESU rise of more than 60% was reported in the EU-12 compared to its levels a decade ago. All the individual member states have seen a rise in the average ESU of holdings in the last ten years, although the extent of the increase varies significantly between the member states. Therefore we conclude that the productivity increased in all members, but the highest increases were in the EU-12.

The members with the highest national ESU levels per holding are farming efficiently because they are optimising both the usage of the available resources and the production costs. Among the most successful members are the Netherlands, Denmark and Belgium.

[5] Standard Gross Margin (SGM) is the difference between potential income and specific variable production costs per hectare or per head of livestock.
[6] The Economic Size Unit (ESU) of the agricultural holding can be assessed by summing up products of SGM values of individual cost items and the extent of their production. Currently 1 ESU equals 1200 EUR.

The majority of member states were above the EU average. The averages for Greece, Italy and Portugal were, however, much lower. Based on the criteria of the ESU's, the Mediterranean member states (Greece, Italy and Portugal) are the most troubling, since they have the smallest ESU and the smallest rises in economic size. The EU-12 registered the highest rises in economic size because of the long-term impacts of the restructuring.

Figure 19: Economic size of holdings (ESU) in the EU-15 in 1999/2000



Source: EC (2003, p. 72).

2.2.8 Less favoured areas

As the farms analysed in the concluding chapter of the thesis are located in less favoured areas (LFA) the farm structure of EU-15 farms located in LFAs is reviewed next. These farms are faced with even more evident structural problems, and consequently low-income problems, than other farms. Owing to the settlement problems in LFAs they play an important role in the European rural development policy.

The EU defines the less favoured areas (LFAs) as:

- ✓ mountainous areas subject to a considerable limitation of land use and a significant increase in production costs;
- ✓ areas threatened with abandonment and where maintenance of the landscape is necessary;
- ✓ areas affected by specific handicaps in which the maintenance of agriculture is necessary to ensure the conservation of the landscape, its tourism value or in order to protect coastlines.

The farming conditions in these areas are more difficult (EC, 2003, p. 6).

Concerning the number of agricultural holdings located in LFAs throughout EU-15 the LFAs play an important role with more than half of the holdings situated in LFAs. In Luxembourg all

the holdings are classified within less favoured areas. Italy, Finland, Portugal and Spain have the largest proportion of holdings located in LFAs.

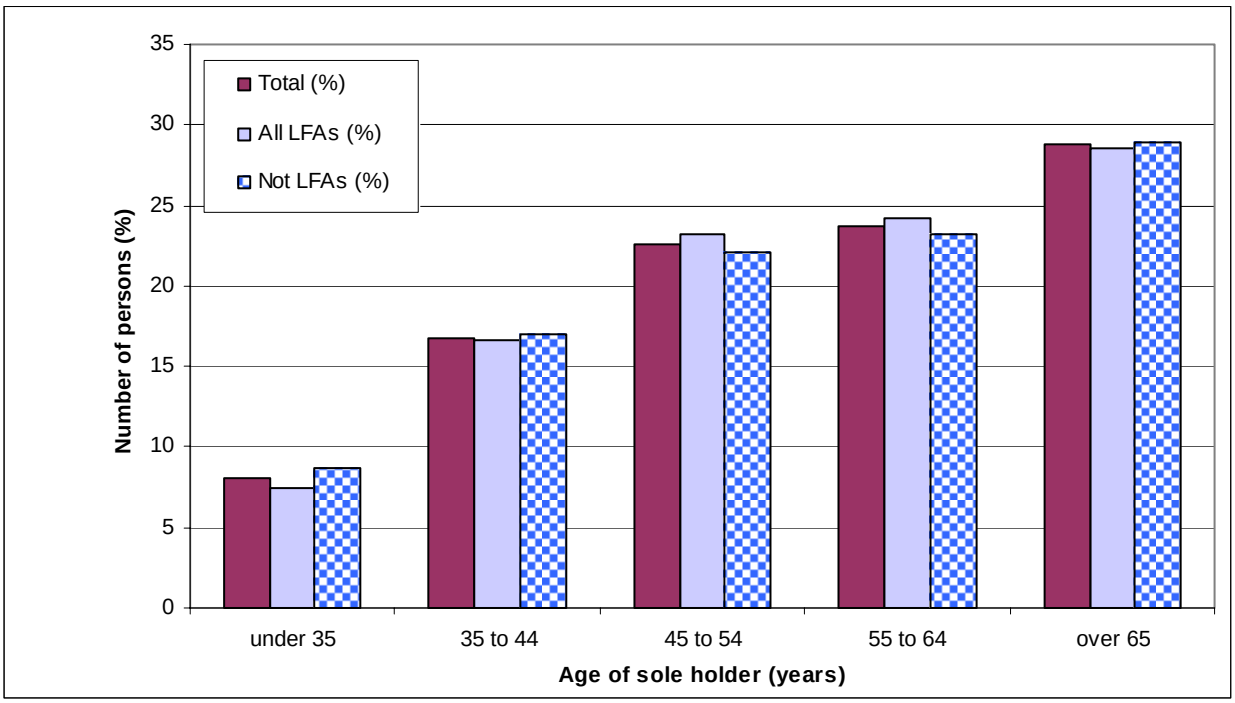
Table 2: Key variables at EU-15 level by LFA status

	Share of holdings (%)	Average SGM per holding (ESU)	Average UAA per holding (ha)	Average livestock per holding (LSU)
All LFAs	54%	12.5	18.4	13.5
NonLFAs	46%	26.0	19.1	21.9
Total	100%	18.7	18.7	17.4

Source: EC (2003, p. 82).

In terms of economic size there was a marked difference between holdings situated in LFAs and those located outside such areas. While holdings situated outside LFAs had an average economic size of 26 ESU, those situated within LFAs averaged only 12 ESU. Further, while at the EU level the average utilised agricultural area did not vary much between holdings situated within LFAs and those not so located, there was a noticeable difference in the average level of livestock per holding (LSUs), with holdings in LFAs averaging just over 14 LSU compared to 22 LSU for holdings not located in LFAs. The reasons for such disparities lay in limited production resources (especially land use and lack of workforce) leading to lower productivity because of a significant increase in production costs. There are 16% more sole holders on agricultural holdings located in LFAs than on holdings not situated in LFAs. The overall age distribution of the sole holders was quite similar between holdings located in LFAs and those located elsewhere. For the younger age category (under 35), the proportion of holders was slightly higher for the holdings located in LFAs than for those situated in non-LFA areas. Similarly, there was almost the same proportion of the LFA sole holders in the group aged over 65.

Figure 20: Age distribution of sole holders inside/outside of LFAs in the EU-15 in 1999/2000



Source: EC (2003, p. 84).

2.3 AGRICULTURAL POLICY IN THE EUROPEAN UNION – COMMON AGRICULTURAL POLICY (CAP)

Due to special economic characteristics of the agricultural markets mentioned in the introduction and inequity between the income of the farm households relying more on farming activity and other incomes (OECD, 2003, p. 24) the governments intervene in agriculture with a view to achieve both economic and social objectives. Generally, there are two types of government intervention: i) stabilisation of the agricultural markets and ii) improving the income levels of farm households. This chapter reviews the agricultural policy of the European Union known as the Common agricultural policy (CAP). The first part of the chapter briefly reviews the objectives set in the CAP throughout its development. In the second part of the chapter the major elements of the reformed CAP are described. The concluding part of this chapter reports on support to less favoured areas within CAP.

2.3.1 Development of common agricultural policy (CAP)

As the EU introduced the CAP in 1960, its objective was to encourage higher productivity in the food chain, mainly for food security reasons to ensure customers a stable supply of affordable food on the EU market. The CAP offered subsidies and guaranteed prices to farmers, in the form of production incentives (WTO Secretariat, 2004, p. 86).

Up to 1970 the CAP's primary objective was expanded with financial support for the restructuring of farming, such as aiding farm investment, aiming to ensure that farms developed in size and in management and technology skills so that they were economically and socially adapted to the economy. During this period, some human and territorial elements were introduced in the form of support measures for early retirement, vocational training and less developed areas (LFA's) (EC, 2004 c, p. 1).

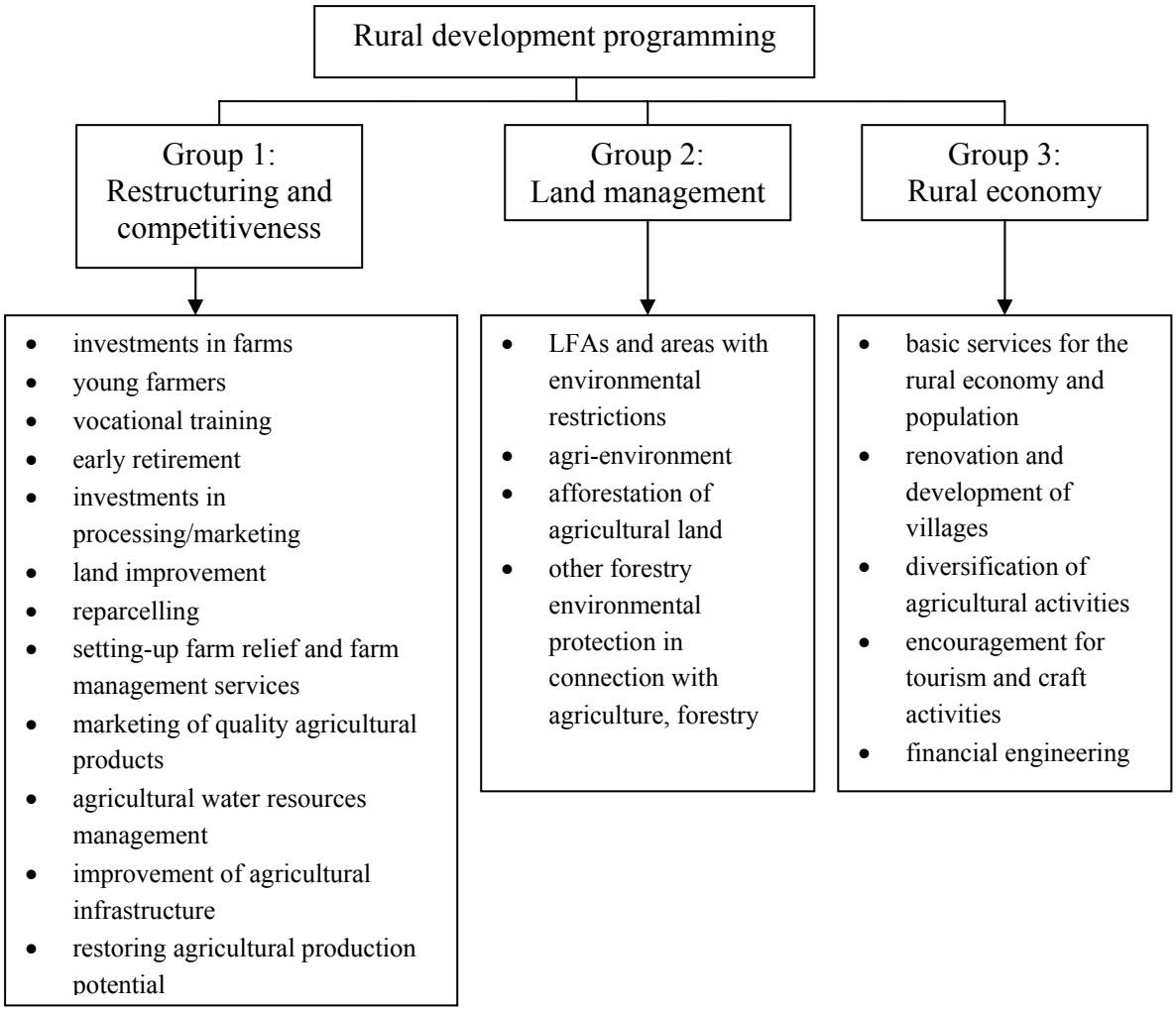
By the 1980s, the EU members produced surpluses of the major farm commodities, as a consequence of the contradictory market price support policy that on the one hand supported the production of the farms and on the other hand disposed of the surpluses within the EU. Some of the surpluses were exported (with the help of additional export subsidies) leading to distortion of some world markets (through dumping prices), while other surpluses were stored within the EU. These measures had a high budgetary cost, did not always serve the best interests of farmers and became unpopular with consumers and taxpayers (EC, 2004 c, p. 1).

Owing to the negative consequences of the market price support policy important reforms were agreed in 1992. Economists recommended area payments (especially if implemented together with planting restrictions) as a better alternative compared to market price support for supporting farm incomes. Therefore the EU started to compensate farmers with area payments. The reforms introduced the production limitations that helped to reduce surpluses. The new rural development measures were introduced, notably to encourage environmentally sound farming. Because of the introduced changes farmers had to look more to the market place, while receiving direct income

aid, and to respond to the consumer's changing priorities (EC, 2004 c, p. 2 and OECD, 2003, p. 72).

Due to the further need for the rural development policy, CAP entered a new phase with "Agenda 2000" reforms. The objective of the reforms is to focus farmers on more market-oriented farming and environmentally sound farming. The introduced rural development policy encourages many rural initiatives such as helping farmers to diversify, to improve their product marketing and to otherwise restructure their business (figure 21). The information on different rural development measures is of major importance to farmers for identifying the support they need. To allow the farmers to plan ahead with more certainty the budget available for CAP was set for the period 2000 to 2006. In parallel the budget will reassure taxpayers that CAP will not escalate (EC, 2004 c, p. 2).

Figure 21: The categories of the rural development programming

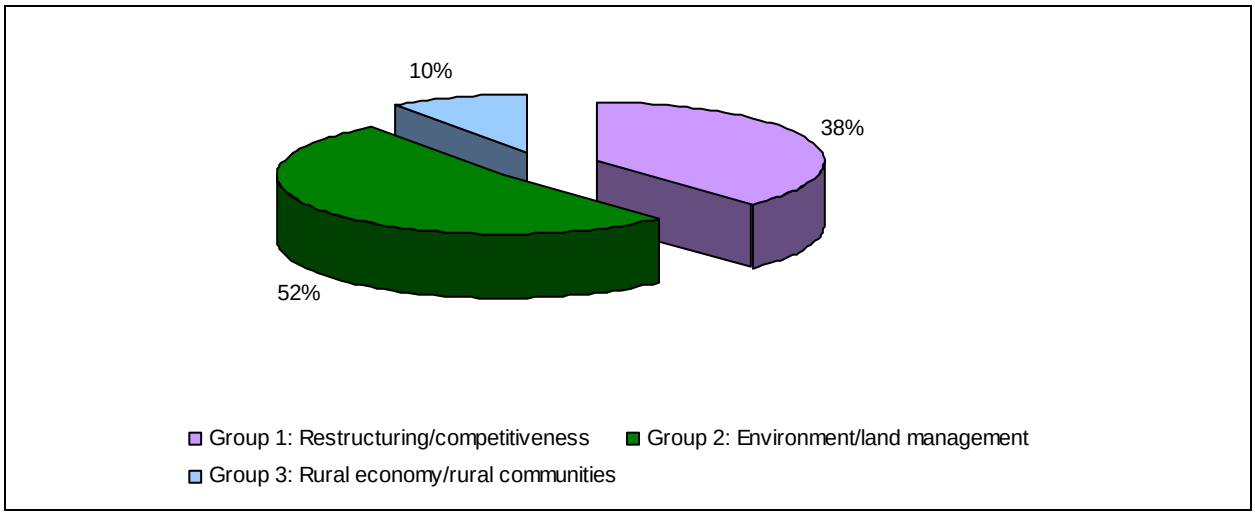


Source: EC (2003 b, p. 5).

The changes of CAP towards the rural development policy and "greener" policy are also evident through the budgetary contribution to the European Agriculture Guidance and Guarantee Fund (EAGGF) that funds the CAP. As shown in figure 22 more than half of the Community contribution has been programmed for environment and land management measures followed by

measures targeting restructuring and competitiveness. The measures for the rural economy are financially not widely supported (EC, 2003 b, p. 6). Therefore we can conclude that the first priorities of the EU policy are environmentally sound farming and encouraging competitiveness and restructuring of the current farms. Diversification and encouragement of tourism/craft are of minor priority.

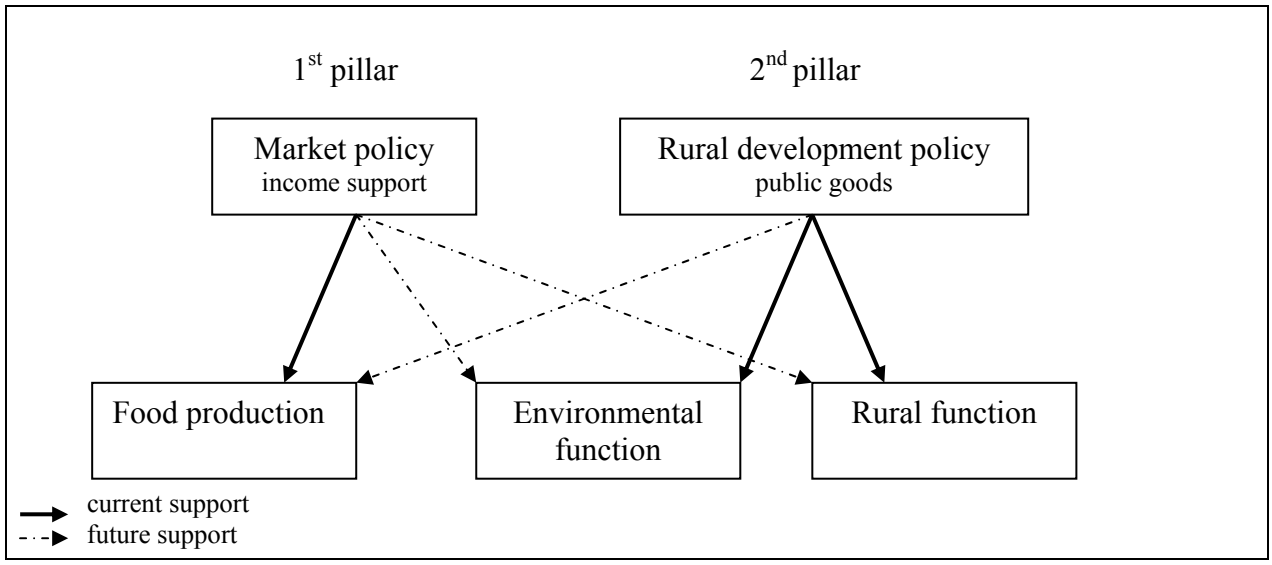
Figure 22: EAAGF programmed expenditure 2000-2006 in EU-15



Source: EC (2003 b, p. 5).

The experts contributing to the OECD study on income households reported that linking payments to a fixed historical period and eliminating the requirement to plant/produce, further curbs unwanted production increases. The study also stated that from an income transfer efficiency point of view, support that is decoupled from agricultural activity and targeted specifically to income would be much better as a way to transfer income to farm households. Such direct income payments minimise economic distortions and distributive problems because their effects on production decisions are minimal (OECD, 2003, p. 35).

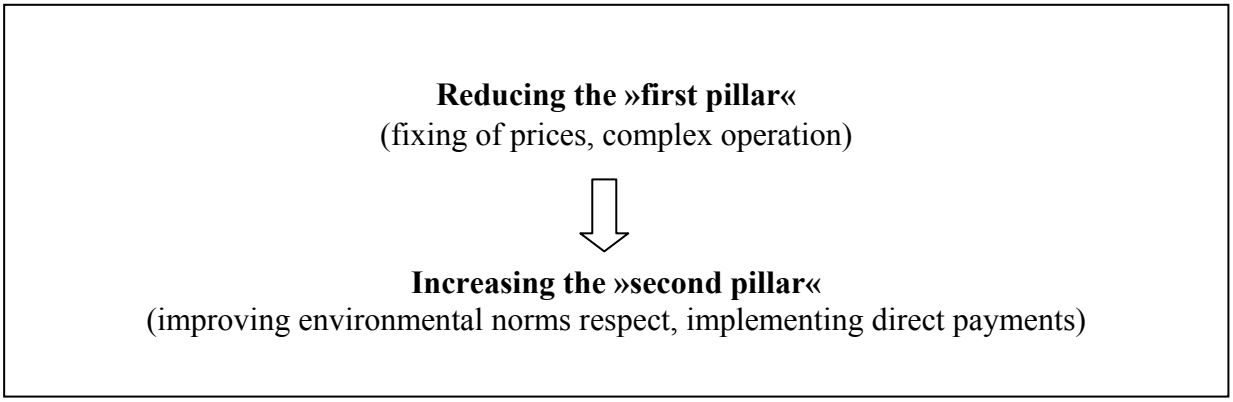
Figure 23: Relations between 1st and 2nd pillar



Source: EC (2004 a, p. 7).

The listed findings might be the basis for the latest reforms introduced in 2003 that revamp the income support scheme (1st pillar) by introducing decoupling of premia through setting the new scheme called Single Farm Payment (SFP) based on historical reference, cross compliance (defined conditions for the farmer to receive his full SFP) and modulation scheme[7]. As shown in Figure 23 rural development policy supports agriculture as a provider of public goods in its environmental and rural function (EC, 2004 a, p. 7).

Figure 24: Reforming the CAP



Source: Landgrebe (2003).

The modulation scheme will enable finance for the introduction of the new rural development measures (EC, 2004 a, p. 4). The latest reform is being introduced across the EU in 2004. The aim of the reform is to establish a more stable policy framework for European agriculture. The reforms are crucial for helping the EU farmers to:

- be more market-oriented and competitive on EU and world markets, while receiving reasonable income support (single farm payment scheme);
- reap the rewards for farming in an environmentally sustainable way;
- continue to produce high-quality foods in the diverse regional situations that characterise European agriculture and to bring added value to them;
- maintain the essential character of the EU's countryside (Slovensko kmetijstvo v EU, 2003).

2.3.2 The major elements of the new CAP[8]

This section reviews the major elements of the reformed CAP since this policy in parallel indicates the elements of future agricultural policy in Slovenia. Those elements will be the basis for the implementation of the future government support schemes in Slovenia. They define the conditions that Slovenian farmers will need to follow in order to receive the full support.

The major elements of the new CAP are:

[7] Modulation scheme defines the SFPs reduction and consequently the transfer of funds from the 1st to the 2nd pillar.
[8] Summarised from DG Agriculture, »CAP reform summary«, Newsletter, July 2003, Brussels and European Communities, Rural development in the European Union, 2003 c, Luxembourg.

(1) Single farm payment scheme

A **single farm payment scheme** (SFPS) replaced most of the premia (direct aid payments to farmers) offered before. The new scheme will no longer be linked to what a farmer produces (i.e., it will be "decoupled"). Decoupling means that the payment will be calculated as a reference amount divided by the number of hectares giving rise to this amount (including forage area) in the reference years. Full decoupling is the general principle from 2005 onwards. The payment is entitled to the farmers who are actively farming the land.

A major objective of the SFPS is to influence the farmers to become more market oriented. Management decisions, formerly influenced by CAP subsidies, may now be taken on the basis of market requirements. In order to ensure continued land management activities throughout the EC, beneficiaries of direct payments will be obliged to keep their land in good agricultural and environmental condition. That will ensure continued land management activities throughout the EU.

All farmers receiving direct payments will have to comply with the European standards in the field of environment, food safety, animal health and welfare. Farmers who fail to comply with these standards will face reductions in direct payments (see "cross-compliance", below). Where the particular production activity is profitable, farmers will continue to follow it. The new reform is designed so that farmers take advantage of such opportunities.

Since the Slovenian agricultural policy was not successful in inspecting he condition of active farming, now the responsible inspections will need to control the compliance with the conditions set by the CAP, because the government will need financial sources to finance the rural development. Additionally to the condition of active farming all Slovenian farmers receiving direct payments will need to comply with the new European standards. Therefore Slovenian farmers are now subject to stricter control and sanctions through cuts in direct payments, if not respecting the set standards.

(a) Dairy payments

Dairy direct aids will be introduced in stages and fully implemented by 2007. Generally, dairy payments will be a part of the SFPS from 2006-07 onwards, unless member states decide on an earlier introduction of decoupling within a regionalized application of the SFPS.

(2) Compulsory cross-compliance

The reformed CAP puts greater emphasis on cross-compliance (an instrument of linking the direct payments to farmers to their respect of environmental and other requirements set at EU and national level). It was voluntary for member states and applied to environmental standards only. Now it will be compulsory and all farmers receiving direct payments will be subject to it. A priority list of 18 European standards has been established on environment, food safety, and

animal health and welfare. Farmers will be sanctioned for non-compliance of these standards, in addition to the sanctions generally applied, through cuts in direct payments.

(3) Modulation and financial discipline

Rural development measures will be financed through the reduction in direct payments for larger farms (the mechanism know as "modulation") solving the problems which appear in the distribution of the low-income farm government support. Direct payments of up to € 5,000 per farm will remain free of reductions. The collected modulation funds will be titled to the collecting member state (80% of its funds). The remaining amounts will be redistributed among other member states according to defined criteria. Reductions in direct payments will not apply in the accession countries until direct payments reach EC levels. Since the direct payments in Slovenia that are funded by the Community budget, reached 85% of the EC levels, Slovenia is currently not under the modulation scheme. All of the farms assessed in the concluding part of the thesis currently remain free of modulation reductions.

A "financial discipline" mechanism will be applied in order to keep CAP spending in line with the strict budgetary ceilings defined. If overspending on direct aid is forecasted then direct aid will be reduced to ensure that the budget is not exceeded.

(4) Strengthening rural development policy

Cuts in direct payments for larger farms will result in additional rural development funds of €1.2 billion a year. The European Agriculture Guidance and Guarantee Fund (EAGGF) is a funding source for rural development. The funded assistance for the period 2000-2006 largely differs across the EU-15 members. France, Germany, Italy and Spain receive all together almost 60% of the available funds (table 3). The contribution of funds to our neighbour Austria is quite high reaching almost 10%. These measures are jointly funded by the EU and member states. The reform includes additional instruments for rural development to further promote food quality, meet higher standards, and foster animal welfare (Appendix 2).

Table 3: Allocation EAGGF Guarantee for rural development of EU-15 for 2000-2006

Member State	million EUR	Share (%)	Member State	million EUR	Share (%)
France	5,763.6	17.5	*United Kingdom*	1,167.9	3.5
Germany	5,308.6	16.1	*Sweden*	1,130.0	3.4
Italy	4,512.3	13.7	*Greece*	993.5	3.0
Spain	3,480.9	10.6	*Netherlands*	417.1	1.3
Austria	3,207.9	9.7	*Belgium*	379.2	1.2
Ireland	2,388.9	7.3	*Denmark*	348.9	1.1
Finland	2,199.3	6.7	*Luxembourg*	91.0	0.3
Portugal	1,516.7	4.6	**Total**	**32,905.9**	**100.0**

Source: EC *(2003 b*, p. 7).

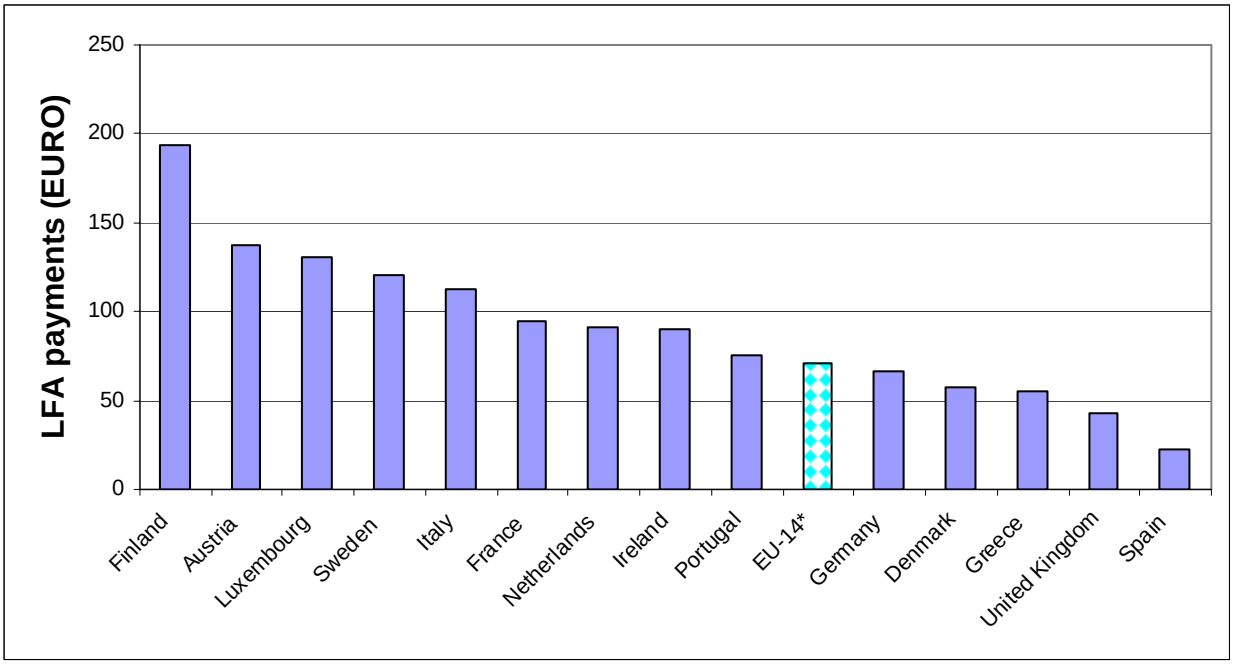
The changes introduced by the reformed CAP within the direct payments scheme for the key arable crops and animal products are listed in appendix 3. The payments were increased mainly to ensure market stability and reduce income variability.

1.3.3 Less favoured areas and CAP

This section describes the role of direct payments for less favoured areas (LFA payments) within the EU-15. Since the rural development policy includes the LFA payments we may conclude that the EU generally supports the farming in LFA areas.

In 2001, over 1 million holdings and 33 million ha benefited from less favoured area (LFA) payments in the EU. These payments are aimed at ensuring the continuation of farming and viable rural communities in what are often more remote areas. The average LFA payment amounted to EUR 2319 per holding and EUR 71 per hectare (EC, 2003 b, p. 8).

Figure 26: Average LFA payment per ha per member state in 2001



** Belgium doesn't have any LFAs areas therefore it is excluded from the data.*

Source: EC (2003 b, p. 8).

The national policies towards the LFA direct payments vary among the member states (i.e. farmers in LFA areas in Finland receive on average more than twice as much as the farmers in Germany). More than half of the member states are offering the average LFA payments that are above the average European level. The highest average payments for LFA farms are in Finland, Austria, Luxembourg, Sweden and Italy. These members are supportive in LFA policy (EC, 2003 b, p. 8).

3 AGRICULTURE IN SLOVENIA

In Slovenia, farming is a tradition, also in less favoured areas. Slovene farming is characterized by a traditional symbiosis between farming and forestry, and a considerable area of valuable habitats, in particular grasslands (EC, 2004 e, p. 1).

3.1 MAIN FEATURES OF AGRICUTLURE IN SLOVENIA

The characteristics of Slovenian agriculture are the best visible from the usage of utilised agricultural area (UAA) (Cunder et.al., 1997, p. 143). Of 486,000 hectares of UAA in Slovenia, more than 80% is located in less favourable areas, with almost two thirds being grassland and 35% of arable land. In 2000, Slovenian UAA contributed up to 0.3% of the UAA of the EU Member States (EU-27)[9]. More than half of Slovenia (i.e. nearly 1.1 million hectares) is covered with woods and forests. That places Slovenia third in Europe after Sweden and Finland (DG Agriculture, 2002, p. 4; OECD, 2001, p. 40-41; SURS, 2002, p. 53).

The share of arable land is decreasing. There was a 10% reduction in arable land in the last decade. The major reasons for reduction are (Sadek-Pučnik, 2002, p. 1):

- ✓ urbanisation and infrastructure (e.g. roads, highways) that use arable land even of the best quality and,
- ✓ abundance of agricultural activity in the least favourable areas, that are changing into forest.

GDP serves as criteria for assessing the sector's contribution to the country's economy. In Slovenia agriculture's relative weight, assessed on the basis of agriculture's contribution to GDP, is decreasing and is likely to continue to do so.

Table 4: Agriculture in the Slovenian Economy in the period from 1990 to 2000

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Agriculture in GDP (%)	5.0	5.2	5.2	4.5	4.0	3.9	3.9	3.7	3.4	3.2	2.9
Employment in agriculture (%)	8.1	8.3	7.7	7.5	6.9	6.4	5.9	5.7	5.6	5.3	n.a.

Source: OECD (2001, p. 39); SURS, (2003, p. 18).

As shown in table 4, in Slovenia the shares of agriculture in GDP have been falling since the beginning of the nineties. The agricultural share is expected to decrease further, mostly due to the growth of non-agricultural sectors of the economy. Therefore agriculture is of limited importance to the Slovenian economy. Also in the EU the share of agriculture in GDP fell below 3% at the beginning of 90's already (Cunder et al., 1997, p. 143). The supplementary activities

[9] Twenty-seven EU Member States represent the 25 current Member States including Cyprus and Malta.

that are developed on the farms are contributing to the non-agricultural sector and therefore are contributing to the tertiary sector (services).

Slovenia is one of the Central and East European Countries (CEEC's) with the lowest share of agriculture in GDP. The contribution of agriculture in developed economies is low, but in developing countries the share of agriculture in GDP is at the two-digit level. Regarding agriculture's contribution to GDP, Slovenia is considered a developed country (Turk, 2001, p. 31). In the GDP, the share of services is increasing and the share of agriculture is decreasing. This leads us to question whether we actually need agriculture and what its scope should be. To estimate the scope we should consider food security and preserve the retention (Kovačič, 2000, p. 70).

Slovenian agriculture produces 80% of the food market demand, which means that the domestic production hardly assures food security. Slovenia is a net importer of agricultural products; the domestic surpluses are only in milk, hops and poultry (Sadek-Pučnik, 2002, p. 1).

Unlike most other CEEC's (except Poland), prior to independence more than 90% of Slovenia's UAA was occupied by small private farms and only about 8% by "socially owned" holdings – known today as "agricultural enterprises". This was the result of the Land Property Law in 1953, which limited the size of private farms to 10 hectares of arable land (or 15 hectares in some cases). Any land in excess was transferred to the agricultural enterprises (DG Agriculture, 2002, p. 7).

Although the "agricultural enterprises" held only 8% of the UAA at that time, their contribution to gross agricultural output was nearly one-third. This was not only due to a much higher production potential but also to their ability to exploit available production factors more efficiently. Moreover, the agricultural enterprises were not spread throughout the country, but concentrated in the central and north-eastern plains, the best agricultural areas. The productivity achieved by these farms approached EU levels, for both land and labour (DG Agriculture, 2002, p. 7).

3.2 FARM STRUCTURE IN SLOVENIA[10]

The duality of farm structure is one of the specific features of Slovenian agriculture. This holds true with regard to land fragmentation, the size of farms as well as to the ownership and age structure. There are many small farms (mostly individual family farms), often subsistence and part-time oriented; on the other hand there are very large enterprises owned by commercial companies or co-operatives. To enable better comparison of Slovenian and European farm structure, the same production factors are being analysed. As already mentioned, structural characteristics of the farm and the household are among the factors affecting the total income of

[10] Summarised from *Agricultural Census 2000,* Statistical Office of Republic of Slovenia, 2002, Ljubljana and European Commission, Farm Structure, 1999/2000 Survey, 2003, Luxembourg.

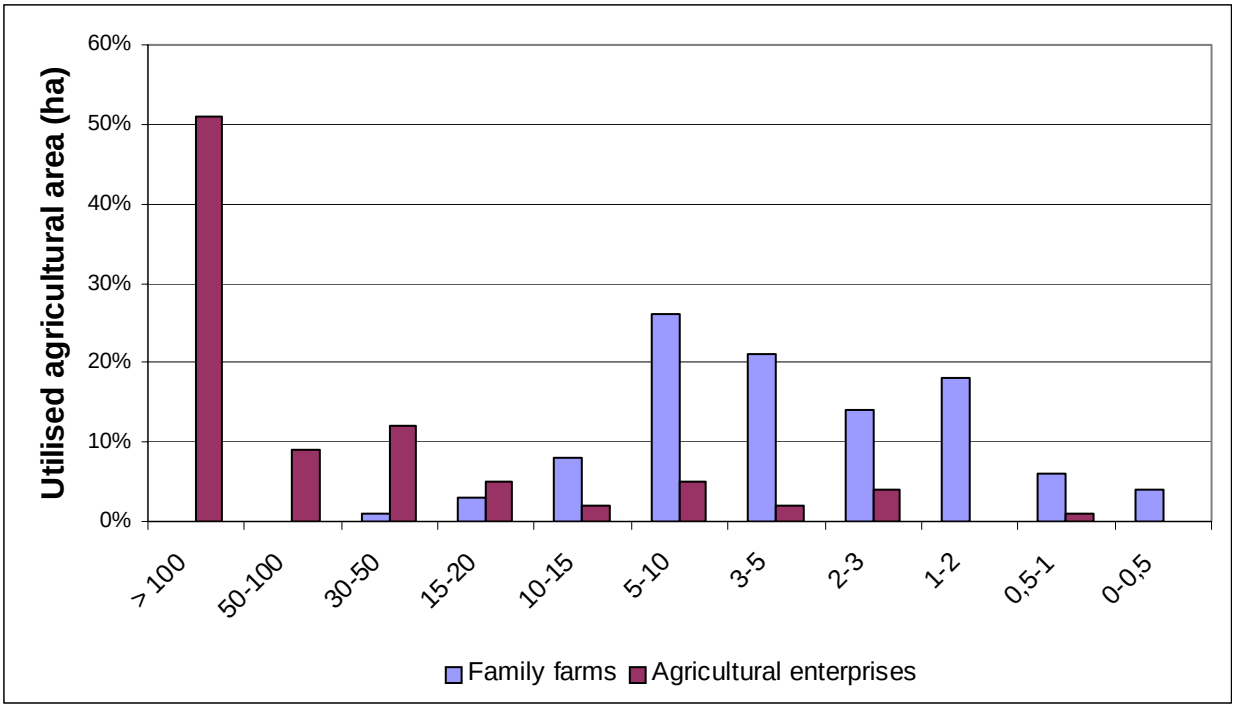
farm households (OECD, 2003, p. 21) therefore this section includes the farm structure analysis of Slovenian farms. The following overview identifies the major structural problems of the Slovenian agricultural sector.

3.2.1 Land and land use

The family farms are cultivating almost the total Slovenian UAA, therefore the structural problems appearing on those farms are at the same time the structural problems of the whole agricultural sector in Slovenia. The agricultural enterprises cultivate only a negligible proportion of UAA. But the degree of cultivation varies considerably between both farm structures. The relatively high share of agricultural area outside active use is on family farms, which accounts for 10% compared to 0.6% for agricultural enterprises, clearly shows the lack of control over the active use of the land. As already mentioned with the introduction of the CAP Slovenian farmers will be subject to conditions on farming actively in order to receive direct payments. These conditions will force farmers, who continue farming further, to really fulfil this condition.

The farm structure survey reports that Slovenian agricultural holdings, smaller than 0.5 ha are abandoning production. This indicates some initial steps towards the restructuring of the whole farming sector. If there are insufficient off-farm employment opportunities ensured, the restructuring process will lead to higher unemployment rates, rates that are already significantly high in some regions.

Figure 26: Agricultural holdings by utilised agricultural area in Slovenia, 2000



Source: SURS (2002, p. 57).

Average size of UAA per agricultural holding is 5.6 hectares. Agricultural enterprises are 50-times larger on size criteria of UAA than family farms. In Slovenia small and medium-sized

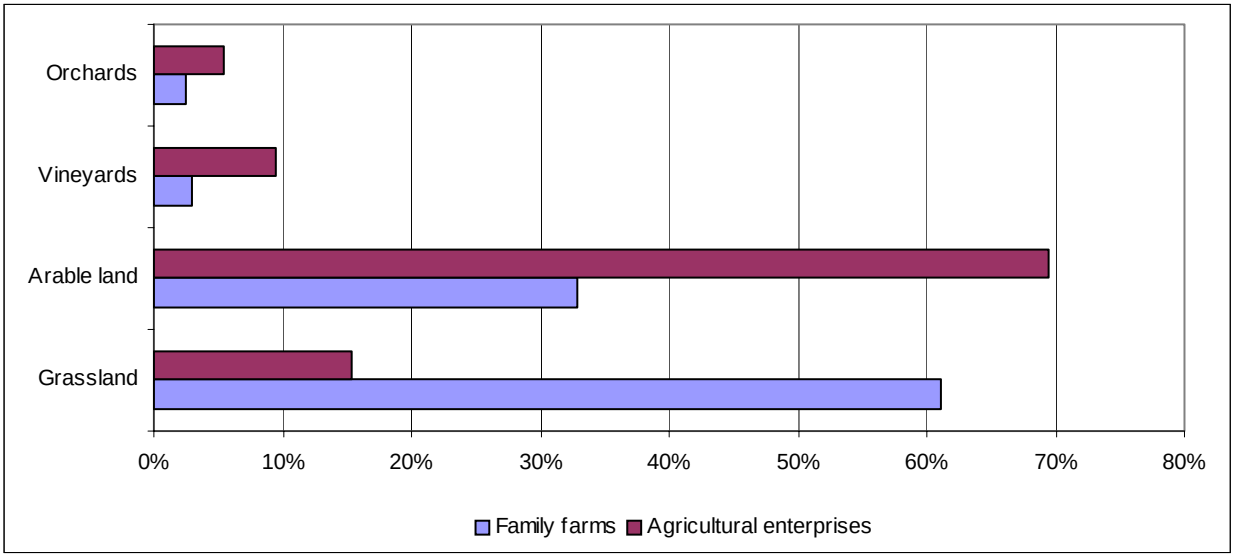
family farms predominate, since almost half of the family farms are cultivating 3-10 hectares. Specialised farming is not necessarily successful on such small farms, because of the small quantities produced. For that reason the farms tend to diversify their farming activities by introducing supplementary activities that are actually becoming the main activity judging by the income contribution. More than half of the enterprises have over 100 hectares of UAA.

Additionally to unfavourable size structure, fragmented land is one of the biggest problems of Slovenian agriculture. This is especially true for family farms, which cultivate on average 7.2 pieces of land per holding. The average size of a piece of land is below 1.4 hectares. Only one eighth of family farms in Slovenia have land property in one piece. They cultivate less than 10% of total UAA. Most land is cultivated by family farms, which have between 2 and 10 pieces of land. Owing to such discrepancies in size and land fragmentation within the Slovenian farming sector, it is clear that family farms are limited in available land and consequently the production quantities are limited. Therefore they are able to compete with agricultural enterprises only when marketing their products within a regional farmers' association (group of farmers in a region). An association should be a forum for establishing standards for product quality and defining the best farming practises. These two activities would be the basis for standardising the products, establishing brand names and improving farming operations. When marketing through associations farmers would save time and reduce marketing costs.

3.2.2 Main uses of utilized agricultural area

Looking to the structure of UAA, family farms and agricultural enterprises differ significantly. On family farms grassland dominates, leading to higher production of livestock, while arable land represents less than a third (and is mostly due to the small quantities produced being used for feed stuff). In agricultural enterprises the structure is exactly the opposite.

Figure 27: Structure of agricultural holdings by main types of agricultural land use in Slovenia, 2000 (in %)



Source: SURS (2002, p. 59).

Both on family farms and agricultural enterprises, the third most important form of utilisation is vineyard, although wine rarely brings profit, especially if produced on family farms. Since agricultural enterprises have competitive strength in available resources compared to family farms they should be capable of marketing their products rather successfully. But on the contrary the majority of them are in the red. Therefore we may conclude that both structures have problems with marketing their products. The reason for the current situation might lie in the unresponsiveness to the consumers' needs.

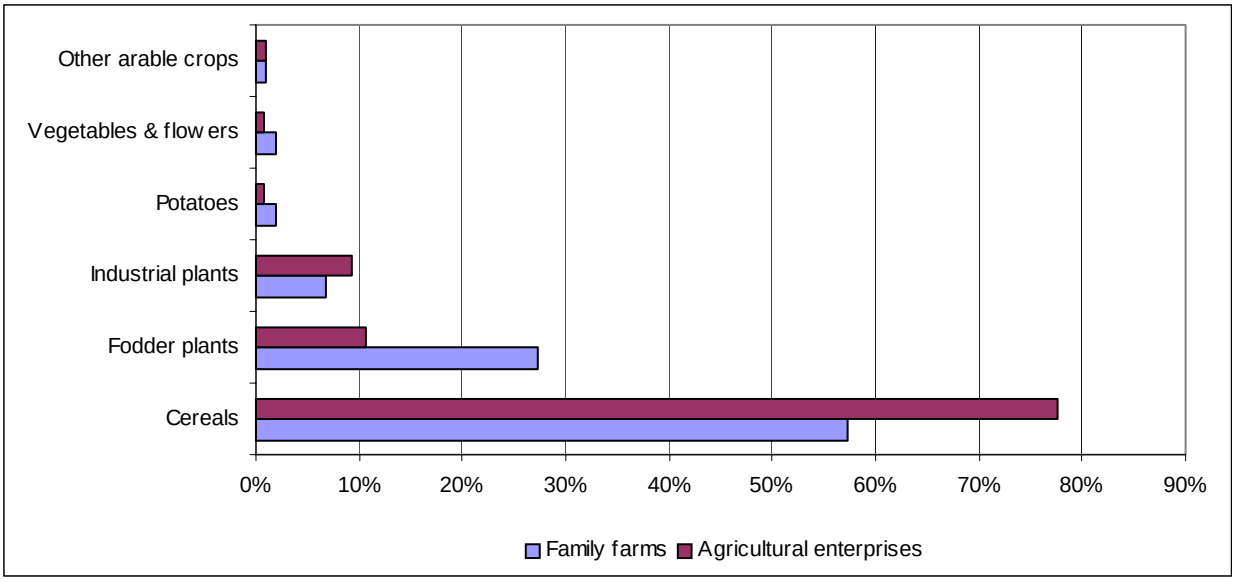
3.2.3 Arable crops

Agricultural enterprises cultivate arable crops mostly on larger, rounded pieces of land (over 100 hectares on average). On the other hand arable crop production on family farms is still on small, scattered plots. Therefore agricultural enterprises have a competitive advantage.

Despite the small yields (3.5 tonnes of wheat per hectare in Slovenia compared to 6.3 tonnes per hectare in France) in Slovenia the production of ***cereals*** predominates. On family farms cereals represent more than half of the arable area, while in agricultural enterprises they represent over three quarters. Family farms lead significantly in the amount of arable land used for fodder for animal production. The structure of arable land use for other crops included in figure 28 does not differ substantially between the two organisational forms.

Since Slovenian agriculture is distinctly oriented towards animal production, the second most important group of arable crops is fodder plants, followed by industrial plants. The structure of individual arable crops grown in Slovenia is relatively simple. Three leading crops – maize, wheat and silage maize – comprise two thirds of the total arable land.

Figure 28: Use of arable land on agricultural holdings in Slovenia, 2000



Source: SURS (2002, p. 62).

The fragmented and scattered utilized agricultural areas in Slovenia present a dilemma as to whether to grow cereals or not, because the yields are not satisfactory. In Slovenia only 3.5 tonnes of wheat is produced per hectare while in France the yield accounts for 6.3 tonnes per hectare. Since the utilized areas are not comparable with that in the EU-15 and other factors (for example productivity) this product cannot compete in the market.

Almost all holdings produce **fodder** from the grassland and it is mainly produced by family farms. Agricultural enterprises cultivate on average almost ten times the area of grassland of family farms. The fact is that the production of fodder is still connected with smaller or medium-size holdings cultivating less than 10 hectares of grassland. In the agricultural enterprises, it is exactly the opposite. The production of fodder on family farms is relatively extensive. This is evident in both the frequency of use and the methods of exploiting grassland. The meadows with three harvests predominate. Only about a third of pastures are intensive pastures.

There are two types of orchards in Slovenia; ***orchard plantations***, that are market-oriented, and ***extensive orchards***, which are predominantly self-sufficient farm orchards. Most of the orchard plantation areas are cultivated and maintained by family farms. The average size of the orchard plantation per farm is 0.7 hectares. The remaining area is cultivated by 25 large agricultural enterprises. The average size of the orchard plantation per agricultural enterprise is 65.6 hectares. Mainly family farms are growing fruit on land that is up to 1 hectare, while the majority of the agricultural enterprises cultivate more than 30 hectares of plantation per holding. The structure of fruit varieties on orchard plantations is rather simple. Apple trees absolutely predominate, followed by peaches, olives and pears, while the shares of other varieties are almost negligible.

The ***extensive orchards*** on family farms represent a traditional form of fruit growing. In these orchards apple trees predominate, followed by plum trees and pear trees. These orchards are sustainable as they are usually fertilised in sustainable way and are not sprinkled. Because of that it is not easy to market the fruit grown in these orchards since the fruit does not look like fruit on the shelves in the shopping centres. These products should be marketed as organic products.

In the cultivation of the ***vineyards*** family farms strongly dominate. Wine growing is one of the activities with the most scattered land distribution. While within agricultural enterprises the land under vineyard is mostly composed of larger units, the structure of vineyards on family farms is distinctly scattered. Although family farms cultivate on average 0.4 hectares of vineyard per holding, more than half of all family farms engaged in wine growing have less than 0.2 hectares. A further 30% have vineyards between 0.2 and 0.5 hectares. The structure of wine varieties is distinctly disproportionate. Almost 70% of the total area of vineyard are white sorts and are not the appropriate sorts for producing dry wine that lists higher demand on the market. A surprisingly small share of arable land is used for vegetables and flowers.

3.2.4 Livestock

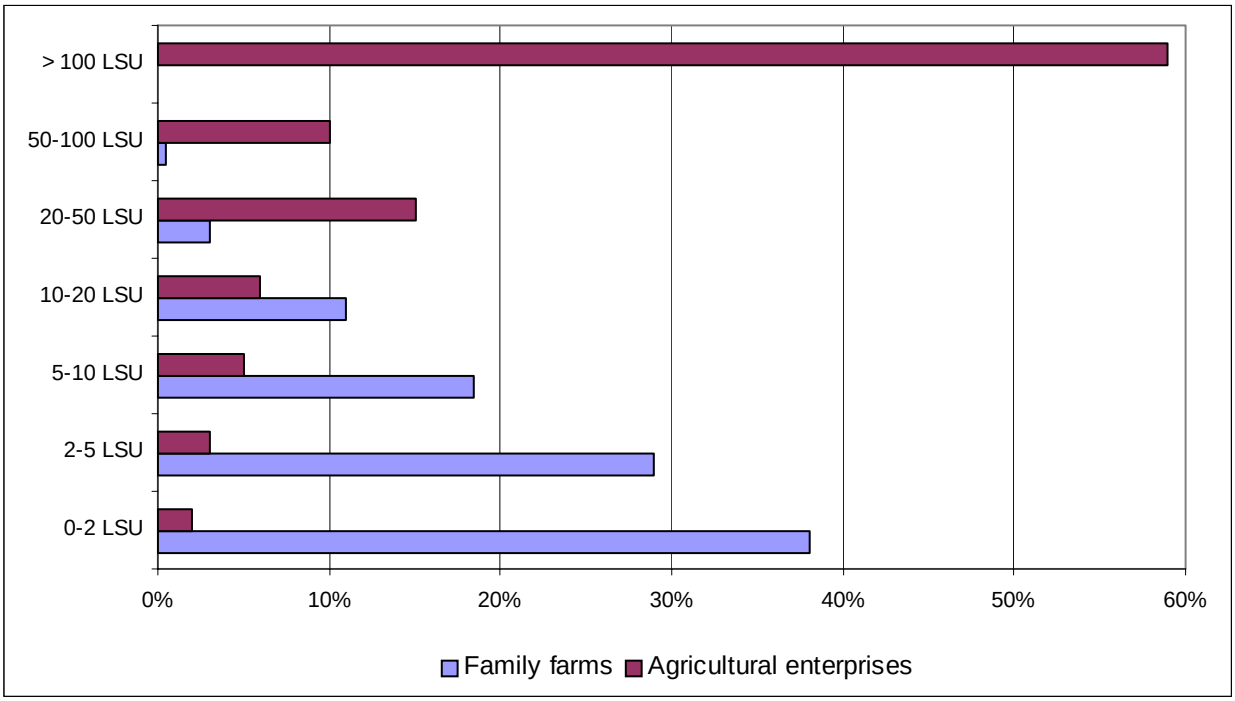
Livestock breeding is the central and most important agricultural activity in Slovenia. Almost all agricultural holdings are breeding livestock, the majority is bred on family farms. Cattle

dominate, pigs represent just over 12% and the rest are other ruminants (horses, sheep and goats), rabbits, poultry and other animals. Family farms concentrate on cattle breeding, while the agricultural enterprises are more orientated towards pig breeding.

The number of cattle is decreasing. The situation is the opposite as regards pigs and especially sheep and goats. Despite the favourable conditions for sheep and goat production, Slovenia has a negligible share of them in the total number of LSU.

As the data on the structure of family farms already indicates the limited availability of resources, they consequently have a relatively small and scattered animal production. On average they breed 5.7 LSU per farm. This is more than ten times less than in agricultural enterprises. Among agricultural enterprises large holdings predominate and breeding is highly concentrated. While more than half of the enterprises engaged in animal production breed more than 100 LSU, the size structure on family farms is exactly the opposite.

Figure 29: Agricultural holdings breeding livestock by LSU per agricultural holding in Slovenia, 2000



Source: SURS (2002, p. 82).

There has been a growing trend in the number of large farms engaged in animal production, but their share in the size structure is still low. From the data given we can conclude that Slovenia has extensive animal production on family farms and intensive production in agricultural enterprises. Therefore the marketing strategy should differ between both organisational forms.

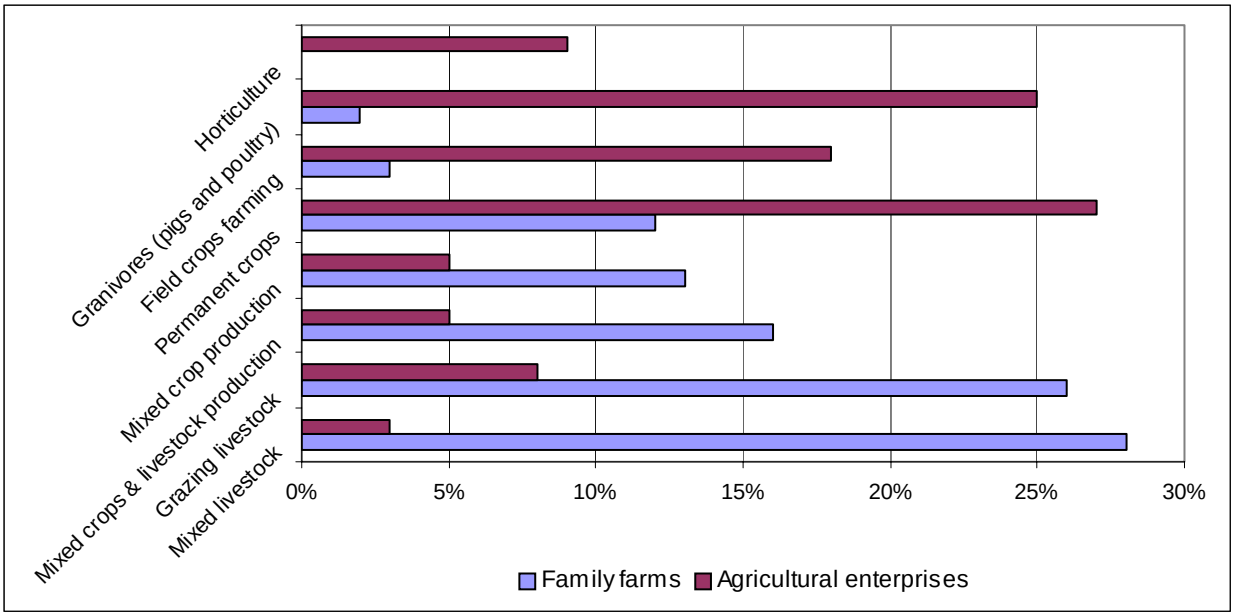
3.2.5 Type and system of farming

Although worldwide specialised farming has proved to be more efficient compared to diversified farming (Greer, 1993, p. 548) only 40% of Slovenian agricultural holdings were specialised in

2000. The remaining holdings were involved in mixed livestock production. This indicates strong potential for specialisation.

As it can be seen from figure 30, mixed livestock production and breeding grazing livestock dominate among the family farms. Over a half (57%) of family farms belong in one of the types of mixed production, either mixed livestock production, mixed crop production or a combination of both. Within crop production the family farms are mostly involved in permanent crops. The family farms are not involved in horticulture that brings the greatest economic benefit (21 ESU). They are also poorly represented in the breeding of pigs and poultry that still bring greater economic benefit (14 ESU). In all other types of farming economic benefit is lower (below 7 ESU), especially on mixed farms (around 3 ESU).

Figure 30: Agricultural holdings by types of farming in Slovenia, 2000



Source: SURS (2002, p. 59).

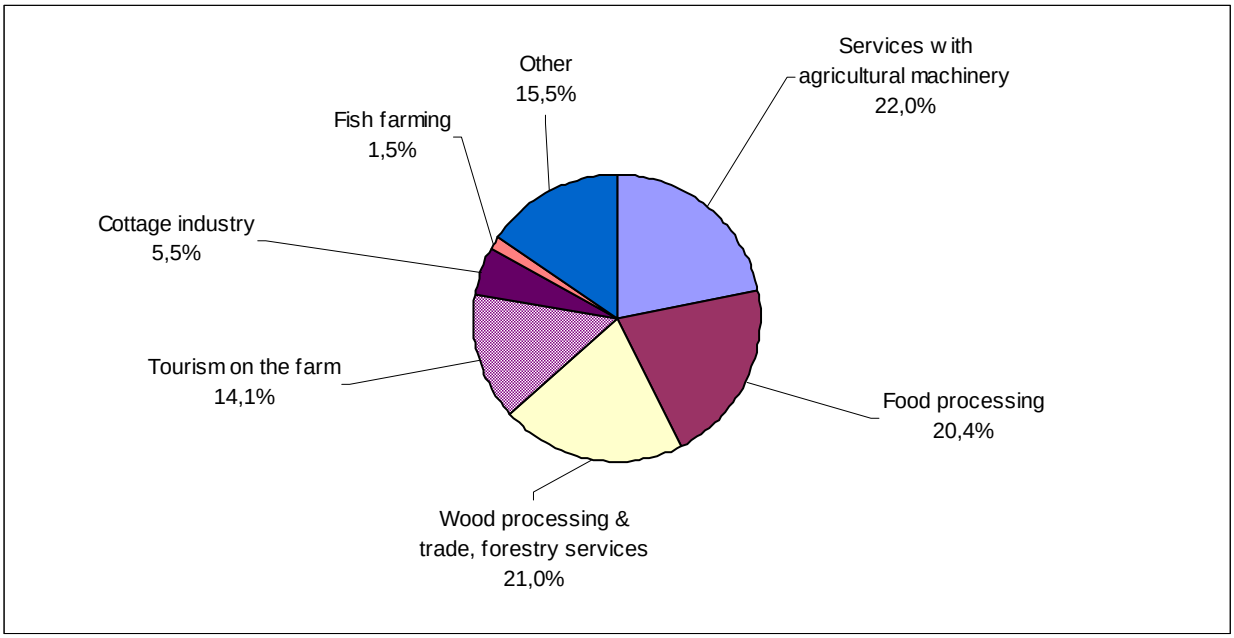
On the contrary the agricultural enterprises are involved in production of permanent crops and breeding of granivores (pigs and poultry). They should increase their activity in horticulture, and reduce activity in some permanent crops, to create a higher economic value.

In Slovenia an increasing number of family farms are opting for ecological farming. Only 5% of all farms are already engaged in ecological farming. The majority of farms are still in the process of transformation. Family farms opting for ecological farming are mostly small and medium-sized. Over 70% of family farms actually farming ecologically or are planning to start farming in this way are smaller than 10 hectares. Larger farms with 50 or 100 hectares of UAA are mostly planning the transformation in the long-term.

Even though the Slovenian government is largely supporting supplementary activities, especially on small and medium-sized family farms, only 6% of family farms are engaged in supplementary activities. Among them, three activities predominate: services with agricultural machinery, food processing and wood processing on family farms. Relatively widely developed are also tourism

and cottage industry. Predominant types of supplementary activities differ significantly between regions, what can probably be attributed to specific local conditions for development of individual activities (natural resources, spatial characteristics, proximity of markets).

Figure 31: Family farms by supplementary activities in Slovenia, 2000



Source: SURS (2002, p. 123).

The share of family farms with supplementary activities rises with the size of the farm. Nevertheless more than a half of family farms engaged in supplementary activities are small farms with 1-5 ha of UAA. An additional 25% of supplementary activities take place on medium-sized family farms with 5-10 ha of UAA.

The probability that a family farm will decide to engage in a supplementary activity grows with labour force input on the family farm. However, also in this case most supplementary activities are registered on family farms with 1-2 AWU (81% of all family farms engaged in supplementary activities).

3.2.6 Human resources

To grow and thrive in today's competitive environment, organisations must deal with several major challenges. First, they need to provide "value", which is discussed in the next part when the thesis describes the economic size of units. However, how human resources are managed is crucial to the long-term value of the company and to its survival (Noe et.al, 1994, p. vii). The authors believe that all aspects of human resource management - including how companies interact with the environment; acquire, develop and compensate human resources; and design and measure work - can help companies meet their competitive challenges and create value. By meeting challenges you can create value and gain competitive advantage. This part of the thesis includes analysis of the data on age, the educational and professional structure of the human

resources on the family farms. It will be the basis for the general assessment of the current human resources on the family farms in Slovenia, for identifying the major gaps in the field of human resources in the farming sector and in the assessed family farms included in the empirical part of the thesis.

As the labour input on agricultural holdings is assessed by annual work units, this measure is defined next. "Expressing the extent of work in annual work units (AWU) is based on the relationship between the number of hours worked on the farm in one year and the extent of work done by one fully employed person in one year (1,800 hours). The calculation of AWU takes into account the total number of labour input on agricultural holdings. It includes the work done by the holder, other family members and people regularly employed on the agricultural holding, hired labour (either in the form of services performed with machinery or in the form of seasonal and occasional work) are also covered" (SURS, 2002).

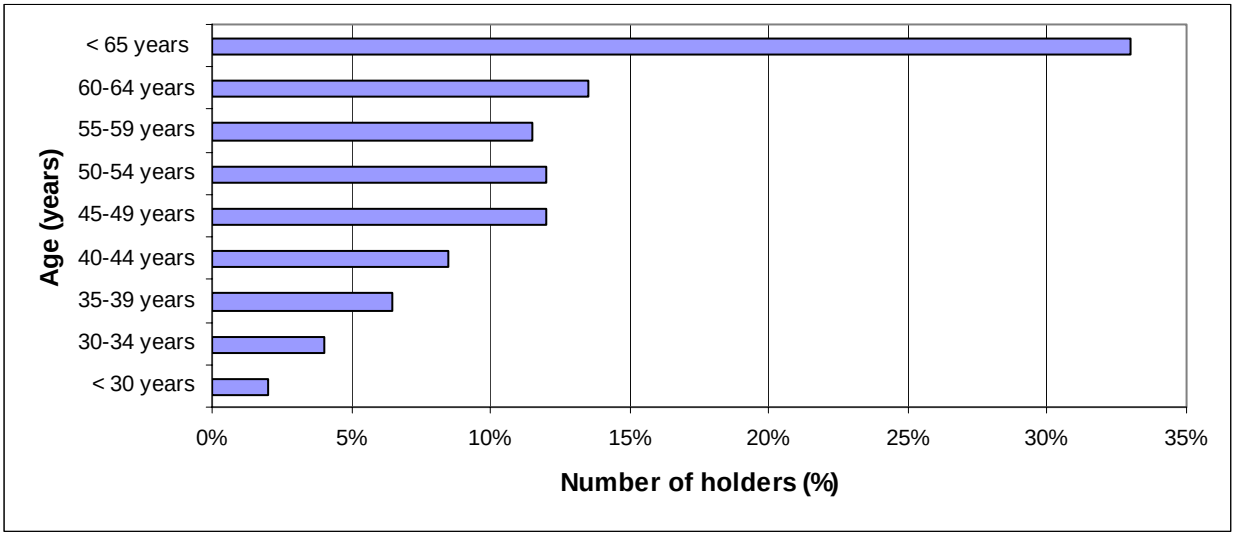
Households on family farms in Slovenia had in 2000 on average 3.8 members per household compared to 2.8 members per household in other households in 2002 (SURS, 2003, p. 1). In the structure of family farm households people over 55 years of age represent almost a third. Since the last census the share of households with two members or less decreased. We may conclude that small family farms with two or less family members are dying. The share of households with more than five members increased substantially. We can infer that multigenerational households became more numerous in the countryside. The reason for multigenerational households lies in tradition, as in many other countries, Slovenian family farms are places of residence in old age, and with higher living expenses that both types of households are subject to. Higher living expenses for farm households deepen the low-income problems of the faming sector. The authors analysing the farm income structure (OECD, 2003, p. 18) have concluded that a significant share of farm income is from off-farm sources such as salaries and wages from other activities, dividends, rents, pension, unemployment support and child support. The higher number of members in the farm household reduces the risk of low-income. The high share of family members, working on their farms only supplementarily or occasionally (72%), confirms the conclusions drawn above. At the same time these family members were an important labour force as their labour input was 50% of AWU. Work on the family farms is highly dependent on family members since they carry out most of the work. The labour input of non-family members is negligible.

Since agricultural enterprises represent only 4% of labour force, the majority of the labour force in the Slovenian farming sector is from family farms. The most concerning weaknesses of Slovenian family farms are the current human resources and their management. The age structure of holders on family farms is unfavourable – since the share of holders older than 65 years has been growing in the last two decades. The older holders largely predominated in 2000. The share of holders who are younger than 35 years is considerably low (5%). The share of older holders decreases with the size of the family farm, but very slowly.

The unfavourable holders' age structure and the statistical office data on the high share of retired holders (43%) indicate that the management of the farming sector is in the hands of pensioners

who are lacking management knowledge and are not always flexible enough to introduce innovations and the latest technology. Therefore the farm is loosing its competitive advantage.

Figure 32: Holders on family farms by age groups in Slovenia, 2000



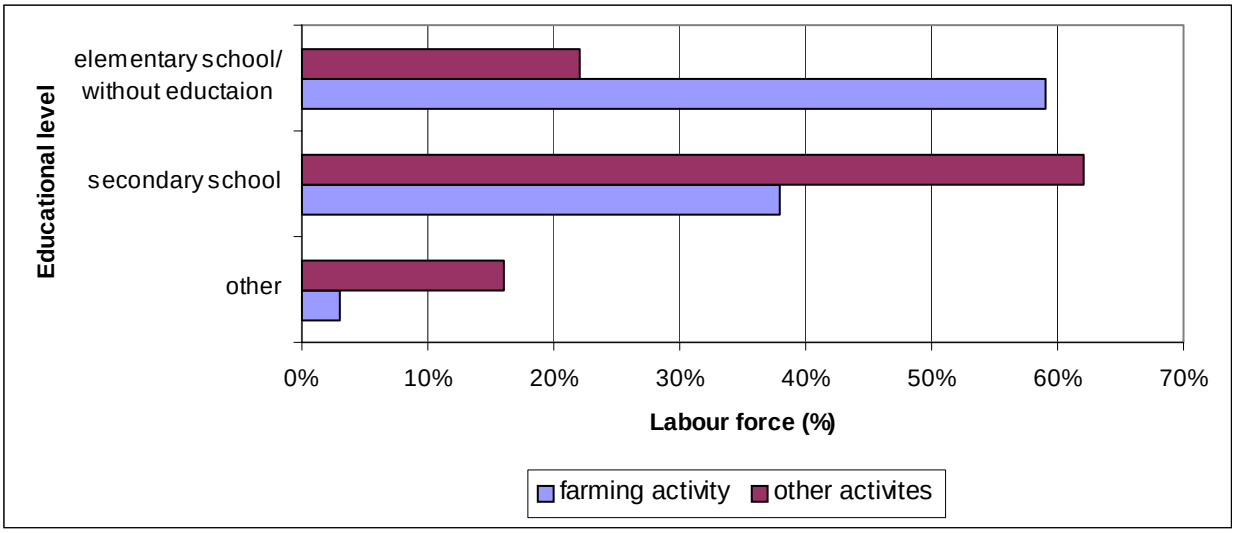
Source: SURS (2002, p. 126).

The majority of the holders are both decision makers and still an important source of labour because they perform 42% of the total work on family farms. In parallel half of the holders are involved in farming as a supplementary activity or they help out occasionally. Therefore we can conclude that managerial work is rather limited on family farms.

The following overview of the general educational structure focuses on holders as decision-makers on family farms, and their successors, i.e. people who will be responsible for the future development of the family farms. Only 23% of farms have chosen the successor. Transfer of ownership and management in small companies is of crucial importance for the further growth of the company. One of the main factors of small company continuity is to plan for the transfer of the company from one generation to the next. When transferring the ownership, the future company and family needs must be taken into account (Duh, 2003, p. 62). The same is true for the family farms as they seriously lack the planning process knowledge and implementation skills.

Regarding the level of school education, holders of family farms differ considerably from the average of the labour force in Slovenia. The educational structure of the average labour force is normally distributed among the main educational levels showing the highest share of the labour force with secondary educational level. On the contrary, among the farm holders a totally different picture appears, with a significantly higher share of the elementary educational level and lower level of the secondary educational level.

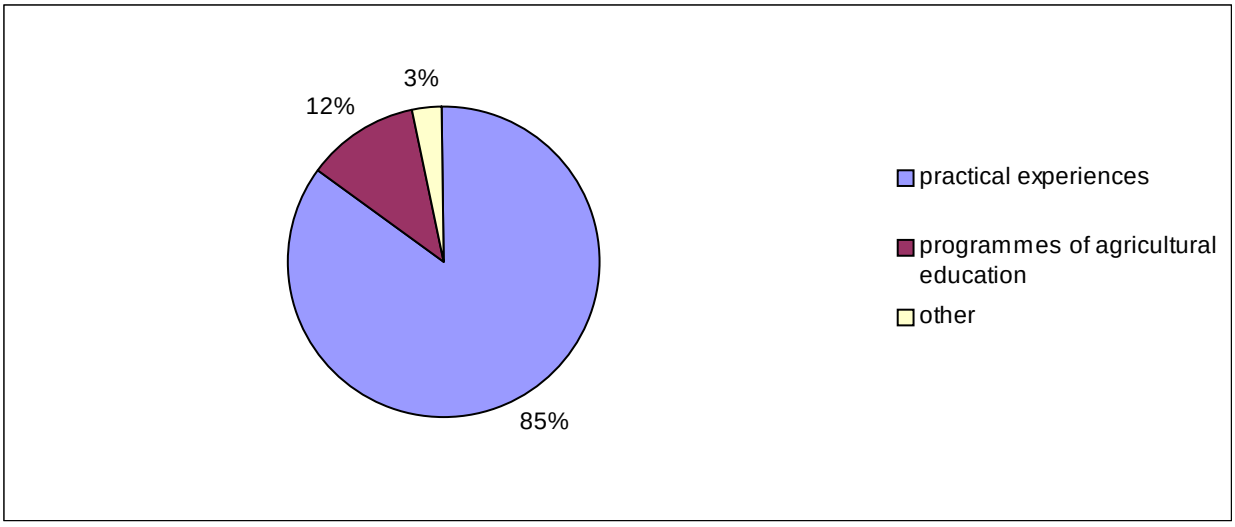
Figure 33: Educational level of holders on family farms compared with the general education of labour force in Slovenia, 2000



Source: SURS (2002, p. 127).

The current unfavourable educational structure of holders is a consequence of traditional thinking and the fact that the least capable members were the successors in the past while they were not capable of studying and the family farm meant a secure future for them. The majority of them are physical workers, not managers. Therefore it is impossible to expect that today's holders will be able to think analytically and strategically. From the facts described it is evident that those holders – physical workers – need leadership and management knowledge otherwise they will be unable to ensure the survival of their farms throughout the restructuring process of the farming sector. But the future is more promising since the general educational level of successors is on average better than that of the holders. At least some successors are still studying and therefore the data on their educational structure and professional qualifications is incomplete. Despite this, the general educational level of successors is on average better than that of holders. Successors with secondary education predominate (65%).

Figure 34: Professional qualifications of holders on agricultural holdings in Slovenia, 2000 (%)



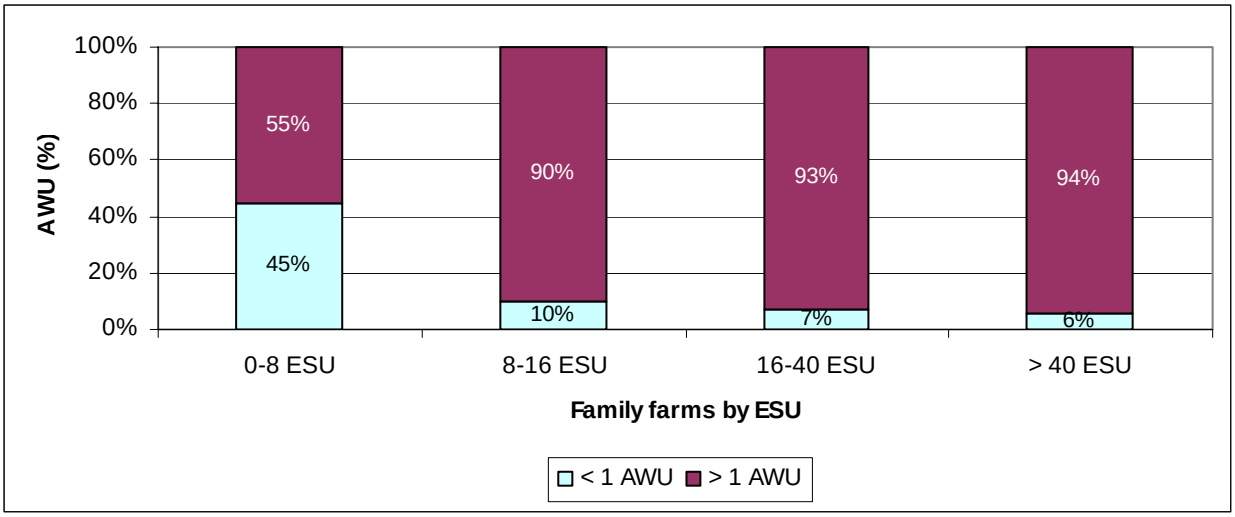
Source: SURS (2002, p. 128).

In the field of professional qualification there are no large differences between holders and their successors. As it can be seen from figure 34, the majority of farmers have practical experience and only a small share of farmers went through programmes of agricultural education. Since the current labour force is mainly a physical one, without agricultural and managerial knowledge, the successors will have to exploit the opportunity to educate themselves in agricultural expertise and medium management.

Labour input per family farm grows slowly with the size of the family farm. High labour input is characteristic especially for family farms smaller than 5 hectares of utilised agricultural area. Half of total labour force of family farms works on these farms. Although the input of labour force working on the family farms grows with the size of the farm, it has to be emphasised that - in view of the smallness of family farms - representation of labour force is relatively large.

To be competitive in today's economy the organisations (including family farms) need to create "value". Labour force productivity is an important component when creating value added to the products, especially in agricultural commodities. On average, there is one annual work unit (AWU) per 4.5 hectares of utilized agricultural area or 3.7 ESUs. If our labour force is not as productive as our competitors' labour force, it means we need more labour compared to our competitors to produce the same output. As the last farm structure survey reported with regard to the small average size of family farms (5.3 hectares) the Slovenian family farm's average labour input was rather high at (1.2 AWU per farm). There were also large differences in labour force productivity between family farms (3.3 ESU/AWU) and agricultural enterprises (14.8 ESU/AWU) indicated. The data evidences that family farms are below the average level of the labour force productivity because they demand 1.12 AWU per farm to produce an average 3.7 ESUs. In comparison the agricultural enterprises required only 0.25 AWU to realise the same average. Or in other words, one fully employed person realised 3.3 ESUs (950.000 SIT) on a family farm and 14.8 ESUs (4 million SIT) in an agricultural enterprise in one year. Lower productivity might also be a consequence of the distribution of the labour force on family farms by age groups showing that persons over 55 of age represent over half of the labour force. This is a relatively high representation of labour force in advanced years.

Figure 35: Labour force on family farms by economic size of agricultural holdings in Slovenia, 2000



Source: SURS (2002, p. 129).

As the majority of Slovenian family farms are classified in the ESU class 0-8 ESU the labour force for this class is overviewed next. The high share of family farms within 0-8 ESU that are using more than 1 AWU (55%) indicates the problem of low productivity of the labour force on family farms.The reason for the low productivity of the labour force lies in the structural characteristics of the family farms in Slovenia such as small and scattered property, low exploitation and quality of agricultural machinery, unfavourable age structure and low professional qualification of the labour force.

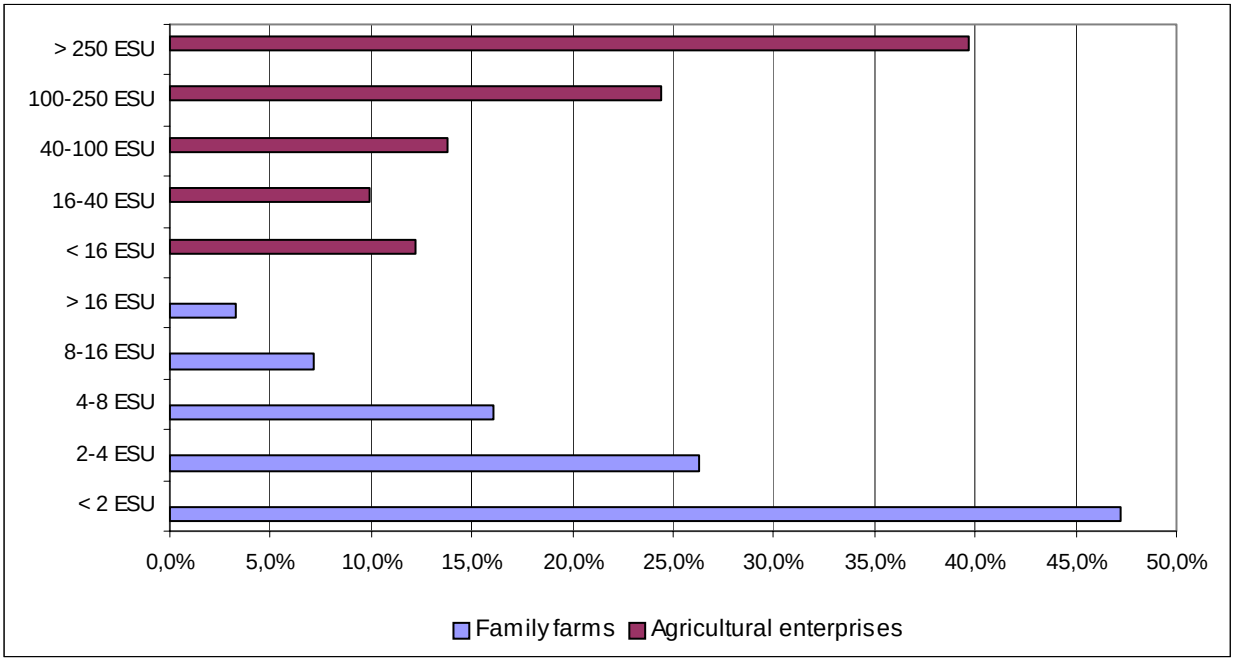
3.2.7 Agricultural holdings by economic size

All the unfavourable structural problems already mentioned largely influence the potential earnings of agricultural holdings (ESU), especially of family farms. As all other resources already analysed are unfavourable this is clearly mirrored in the ESU structure that will be discussed next. This part of the thesis will give an answer as to why the family farms crucially need to be restructured at least if we consider the family farm as an economic unit.

Economic size (ESU) measures potential income of farm household. Since it is closely related to the size and type of agricultural production, the level and structure of economic size classes on family farms are essentially different from those in agricultural enterprises.

The average ESU of agricultural enterprises largely exceeds the ESU of family farms (131 million SIT and 1.2 million SIT respectively). Because the family farms with poor economic performance predominate (nearly three quarters of them have ESU below 4 ESU) the average ESU of agricultural holdings is 4.7 ESU. On the other hand 40% of agricultural enterprises belong to the highest class of economic size, i.e. over 250 ESU.

Figure 36: Family farms and agricultural enterprises by economic size in Slovenia, 2000



Source: SURS (2002, p. 129).

Three quarters of the UAA is used by family farms that have an economic size below 8 ESU. Even though these farms represent almost 90% of all farms, they contribute only 53% to the total SGM of family farms. On the contrary a few hundred family farms (1% of family farms) contribute 10% to the total SGM. The data on usage of UAA and the contribution of family farms to the total SGM indicate that family farms have available land resources, but they lack managerial knowledge on production optimisation and marketing. This conclusion may also be derived from the fact that the share of the higher class of economic size grows with the growth of UAA per family farm and vice versa. Among family farms with less than 2 hectares of UAA there are 80% of farms with the economic size below 2 ESU. Among family farms with 100 hectares of UAA or more there are a half of farms with the economic size of 40 ESU or more.

Unfavourable ESU structure among the family farms results in low-income problems leading to lack of capital that should be invested on the farms, and higher economic risks. Similarly as in small and medium companies, on family farms the decision on penetration of new markets is problematic because this step requires growth in the company (Duh, 2003, p. 165). The growth strategy is rarely developed among the holder's goals of small companies. Since growth requires higher fixed costs it is usually connected with requirements for external financial sources. For this reason small farms have not been growing, because they generally do not have the goal of maximising profit, on the contrary, they just have a goal to survive. The current situation may be the opportunity for family farms to co-operate when marketing their products to eliminate the effect of limited quantities produced and reduce the distribution and marketing costs. Therefore to gain the competitive advantages farmers should market their products through common brand names established on a regional level and supported by the business centres or their own marketing bodies. The income loss caused by the previously mentioned structural problems may lead to higher unemployment levels and increased requirements for social payments in the form of unemployment assistance. Therefore farmers should be encouraged to participate actively in the restructuring process of the farming sector that has already started. The business centres could play a crucial role within the mentioned process with the aim of encouraging rural development in Slovenia.

3.2.8 Agricultural machinery

Proper technology and equipment are important production factors, since they result in higher productivity. As Greer reported for the U.S. the rapid productivity growth, resulting also from modernised technology and equipment, has changed the supply – whereas one farmer formerly produced for nine customers, after growth he or she produced for fifty-five customers (Greer, 1993, p. 549). This production factor is of special importance in less favoured areas, since it makes the operations easier and raises efficiency. The structural problems (such as small size, land fragmentation and transfer to other primary activity) of Slovenian farms are preventing adequate technological development of the farming sector, especially in the LFAs. This part reports on agricultural machinery and equipment in order to identify the technological problems of family farms that are largely connected with the low-income problems being analysed in the third part of the thesis.

The mentioned structural problems result in poor usage of the available machinery capacities. The relative number of tractors on the family farms greatly exceeds the number of tractors in the agricultural enterprises (25 tractors per 100 hectares and 3,4 tractors per 100 hectares respectively). Almost all tractors are owned by family farms. Two thirds of all agricultural holdings in Slovenia own one tractor and just over a quarter own two tractors. Family farms with one tractor are mostly smaller family farms (with up to 5 hectares of UAA), they own almost a third of all tractors. This data leads us to a conclusion that farmers have made huge investments into machinery that is not optimally used. The limiting factors are unfavourable land structure and non- specialised production. The majority of family farms own two tractors each. Farmers are not only investing huge sums in the purchases of tractors, but they also bear other costs connected with the tractors (registration costs, maintenance costs, etc.). If three farms would use one tractor only they would pay one third of the costs each. If farmers were to go into partnership on purchases and usage of machinery, they should be highly organised and should have a knowledge of the advantages of such purchases and usage of machinery. Agricultural holdings in Slovenia mostly have tractors that have between 19 and 60 kW of power. Although in the last 20 years the total power of tractors increased by more than 2.5 times 87% of all tractors still belong to the mentioned class. Farmers just renewed tractors with the same type as before.

Machinery for cultivating the ground, sowing and planting, fertilising and protecting plants is the most widespread machinery on agricultural holdings in Slovenia. This is especially true for machines for basic cultivation (ploughs and harrows). Most machines in this group are used by family farms. They are represented equally in all size classes of agricultural holdings. The share of co-owned machinery is rather large; this is especially characteristic for machines that are used only a few times per year (seed drills and planters, dung liquid tanks).

In addition to machines for basic cultivation, machines for harvesting fodder are the most used machines on agricultural holdings. These machines are used equally by all size classes of holdings. Most of them are owned by family farms. The exception is harvesters for ensilage of grass and maize, which are mostly co-owned. In addition to ploughs and harrows, the most frequent attachment on agricultural holdings are tractor trailers.

The level of technical equipment in milk production is very heterogeneous. For milking cows, family farms still mostly use milking machines with a jug, while agricultural enterprises are mostly equipped with milk pipes from the milking point. Less than 30% of family farms have a dairy, while the share in agricultural enterprises exceeds 70%.

Equipment for grape processing and after-treatment of wine was listed by the Statistical census only on family farms. The standard for this type of equipment is still ordinary, mechanical presses, which are owned by over 70% of all farms. More modern equipment – pneumatic presses and especially filling lines - is owned by larger specialised producers. For after-treatment of wine, wine-producing farmers still mostly use wooden wine containers.

Machinery and equipment for removing and treating wood is scarce on family farms in Slovenia. Chain saws are by far the most common forestry tool, since over 80% of farms have them.

Among important standard machinery we can count attachable winches and log splitters, while other machinery and equipment is only found on farms where forestry is an important supplementary activity. Only 1% of farms use computers for managing the agricultural holding. This type of modern technology is characteristic mostly for larger, modernised farms.

Concerning their technological equipment the family farms lag largely behind the agricultural enterprises. As already indicated they largely exceed the optimal amount of equipment needed. Due to the lack of capital many family farms do not register the tractors therefore they are not properly maintained which also raises safety concerns. If transferring to other primary activities family farms usually do not sell the equipment needed for the past activity and the current value of this equipment is depreciating. If not sold, it only brings the maintenance and storage costs to the owner.

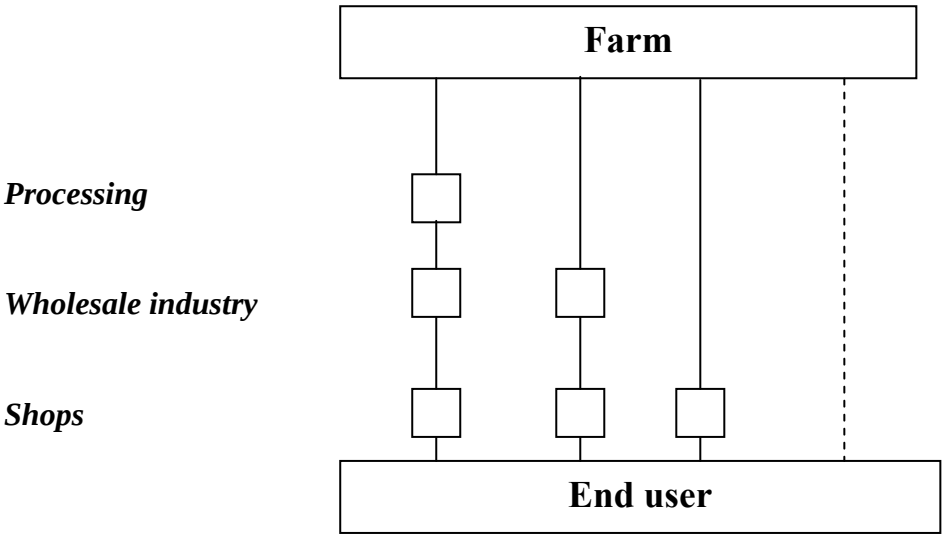
3.3 MARKETING OF AGRICULTURAL PRODUCTS[11]

We use different marketing channels when selling agricultural products. In Slovenia there are two major types of marketing currently in use. The first form is **direct marketing**, when a producer sells his products directly to the end users (selling directly off the farm, or in open-markets). In **indirect marketing,** different intermediaries are included in the marketing channel. The number of intermediaries varies across marketing channels. The established intermediaries, who already have good contacts, extensive experience, are specialised and aware of different marketing patterns, can more easily penetrate the market. They can offer more advanced marketing services compared to that of the individual farmer (KGZ, 2002, p. 3).

As the intermediaries are already present on the market it is easier to access the end customers through them. But the sales through an intermediary brings less income than in the case where the individual farmer takes over all the segments of marketing, especially for small farms producing limited quantities and having exceeded labour force on the farm (a fact on LFA farms). Although some authors claim (KGZ, 2002, p. 4) that the trade through intermediaries is cheaper, this is not always the case, because of the intermediaries' costs known as marketing margin. The marketing margin is the difference between the price that consumers pay for the final good and the price received by producers for the raw products (Cramer et.al., 1997, p. 324). Marketing costs are those associated with assembly, transportation, processing and distribution of food to consumers. Due to distribution and fragmentation problems there are problems with high marketing margin in Slovenia.

[11] Summarized from Kmetijsko gozdarska zbornica Maribor, *Kako začeti novo dejavnost na kmetiji*, 2002, Maribor.

Figure 37: Marketing channels of agricultural products



—— Indirect selling
----- Direct selling

Source: KGZ (2002, p. 28).

It is the characteristic of agricultural products that they are mainly used as raw materials for the food processing industry; therefore, this industry is one of the intermediaries. This industry processes raw materials (cereals, milk, meat, fruit, vegetables, etc.) or just finalises them and then sells the products directly to the end customers or indirectly through the big chain shopping centres. Not only farmers, who due to small quantities produced and poor labour efficiency, but also the processing industry, are facing the competitive pressure after the accession of Slovenia to the EU. The Slovenian food processing industry is not competitive due to: (i) lost competitive position in the neighbouring markets that are not EU member states (i.e. introduction of export duties and the government had to cut off all export subsidies); (ii) small size of some food processing companies that have not decided to merge with some other firms; (iii) better prices of inputs on the EU markets than on the domestic market (also because of uncompetitiveness of farms, which were not restructured to support the industry). Many dairies and meat processing facilities have not reached EU standards, which are necessary for their future business operations. Therefore Slovenian farmers do not have secure markets.

In the 1980's the direct sales of agricultural products started to grow in more developed EU member states. This growth mainly resulted from consumer behaviour and changed attitudes towards healthier and homemade foods. An increasing number of consumers disliked intensive farming, due to intensive usage of chemical substances, introduction of genetically modified food and many diseases. Consumers think that intensive farming methods reduce the products' taste and quality. Consequently, consumers with these attitudes started to buy agricultural products directly off the farm. Successful direct selling of ecological products attracted the end-

consumer back to the farm. Distribution options for marketing organic products are: (i) direct sales to individual consumers, or groups of consumers via box schemes or the Internet; (ii) direct agreement with specialised retailer or restaurant; (iii) selling through groups or cooperatives; (iv) sell to certified processor; (v) partnership agreement with processor to sell to domestic/ export market; (vi) sell to wholesaler and (vii) engage processor for contract/service processing, and market product yourself.

At present, the most important marketing channels in Slovenia are: (i) direct marketing; (ii) organic farmers' markets (vegetables, fruit, flowers, grain, pulses, vinegar, honey, preserved food pickles); (iii) sales at conventional markets; and (iv) sales to health shops. When introducing direct selling off of the farm, the farmer should be aware of some limitations due to the quantities that can be marketed through this marketing channel. Only a small proportion of farms are able to be involved heavily in direct selling off the farm. In Slovenia the highest share of direct selling off the farm (up to 10%) is in the hosting farms (KGZ, 2002, p. 4).

If the farmer introduces direct selling, all the activities of the intermediaries are done on the farm. Since the farmer gets only a small proportion of the price paid by the end users for the raw materials it is more profitable for the farmer to finalise the product (process the product and pack it) for end users. Through additional processing and marketing activities that are in this case organised on the farm the redundant labour force is employed. Since the processed products are products of higher added value they reach a higher price. This form of selling enables the farmer to find new market niches that are not accessible for large store chains or not interesting for the store chains due to the smaller demand.

With direct selling, there is a greater demand on time for processing, packaging and marketing. Its major disadvantage is that the majority of farmers are not skilled and trained in new processing methods, packaging activities and marketing. This processing demands appropriate equipment and it is subject to different regulatory demands. Due to the demand for additional market outlets, packaging and packaging machines, greater investment is needed. The new activity is riskier due to production and sales, while it is optimal not to make any inventory since inventory costs. When selling directly we are coming into constant contact with the customers and if we are not sociable and communicative that can be an additional burden for this type of marketing.

Mainly agricultural products produced on the farm are sold through the food processing industry or through other intermediaries. All the intermediaries are professionally dealing with the marketing of processed goods. If the farmer cooperates with the intermediaries (such as the agricultural enterprises, the food processing industry, retailers, etc) he has to control the production technology, the products' quality and costs (cost reduction). Intermediaries transfer the consumers' requirements to the farmer. If the farmer is producing large quantities and if he is not offering a wide product mix or he does not have time to market his products, it is prudent to market through intermediaries. This type of selling enables the farmer to sell large quantities.

Before introducing a new secondary activity, the farmer has to address the question of the sale of new products. When the farmer decides to produce smaller quantities and can offer a wider range of products in his product mix, he should choose whether direct selling or combine direct and indirect selling (direct and intermediaries). In general, there are two types of direct selling: direct selling off the farm (hosting visitors, vinery, selling on the door-step, end-user sales,) or distribution of products to the end-users (open markets, door to door delivery, postal delivery). Selling on a stall on the nearest road or in an independent shop near the farm is an intermediary solution. One of the growing types of marketing is internet selling. This type of selling is limited to those who use the internet, but internet use is steadily growing.

The decision on the type of sales strategy depends on different factors such as the farm's location, products' characteristics, costs of the chosen selling strategy, availability of the labour force on the farm, the capital available, purchasing power of consumers and consumers' expectations on the market. The farm's location largely impacts the marketing channels. The location determines the transfer costs from the farm to the end user. Therefore distant farms have disadvantages because they face additional costs to come to the market. The type of selling depends on the products the farm produces. For perishable products the place of sale should be near the consumer, but that is not necessary for quality durable products and products with higher value added (specialities), for which consumers are prepared to travel long distances. The most important criteria for the decision on the type of sales strategy is certainly the cost of different marketing channels.

3.4 AGRICULTURAL POLICY IN SLOVENIA

Slovenia started to formulate and implement its own agricultural policy only after the declaration of independence from SFR Yugoslavia.[12] After the beginning of the redistribution and privatisation processes, the authorities aimed to rapidly bring agricultural policy closer to the CAP, in order to facilitate accession to the EU. Emphasis was placed on support for production and farm incomes, further increases in productivity and efficiency, and promotion of the "multifunctional" role of agriculture (covering regional policies, environmental aspects, social welfare, etc.).[13] Government assistance was provided through a combination of limiting measures (tariffs and tariff quotas) and domestic support (mainly comprising a system of guaranteed prices for some commodities, direct payments to farmers, tax concessions, and input subsidies). Before accession, structural policies included separate support and investment programmes in favour of rural development, less-favoured agricultural areas, and village renovation. Reflecting recent CAP trends since 1998, Slovenia has been promoting a gradual shift from market-price support to direct payments and from direct market intervention to structural reform in the whole sector (OECD, 2001, p. 84).

[12] Before 1991, policies regarding market and prices were entirely in the hands of the Yugoslav Federal Government. Individual Republics retained jurisdiction over certain structural policies.

[13] The objectives of Slovenia's agricultural policy, as set out in the 2000 Agriculture Act, include, *inter alia*, retention of the population in rural areas, increase in agricultural competitiveness, support of agricultural income, and protection of environment and nature.

During the negotiations the re-instrumentation of agricultural policies was introduced in Slovenia to achieve higher effectiveness and efficiency. This was a shift from the market price support to direct payments and a greater emphasis on structural, environmental and rural development measures. These measures were included in four major pillars (OECD, 2001, p. 84; Likovič, 2002, p.19):

- Pillar I dealt with market price policy. There was a broad consensus that Slovenia will have to keep its markets more open and reduce price supports. Lower prices for agricultural raw materials should enhance Slovenia's competitiveness at home and abroad and allow for cheaper food for Slovenian consumers. Direct payments were to progressively replace price supports as a more transparent and better-targeted policy instrument.

- Pillar II addressed the eco-social role of agriculture and introduced new measures focusing on environmentally friendly production systems, preservation of the cultural landscape as well as settlement structures in the marginal areas. These were direct payments per hectare (eko 0, eko 1, eko 2, eko 3). The sign »eko« meant payments for environmental friendly farming.

Eko 0: Direct payments per hectare should substitute income losses. It was generally aimed at supporting settlement.

Eko 1: Direct payments for the less favoured areas should substitute additional costs and in this way support the settlement and preservation of the cultural landscape in the LFAs should be ensured. Now this measure is funded directly from EU funds.

Eko 2: These measures were aimed at preserving the settlement and cultural landscape. Prior the accession they were financed at the local and state level, and there was the possibility of co-financing from SAPARD programme (EU programme for pre-accession aid in agriculture).

Eko 3: Payments for eco-farming, ecologically integrative farming and preservation of endangered species. The farmers that are included in this measure were subject to special payments per hectare. Prior to accession this measure was also co-financed by SAPARD.

- Pillar III was concentrated on structural issues with the prime goal to promote the competitiveness of Slovenian agriculture and the food industry. This component included a diversified range of measures, such as investments in farm structures and food processing; land improvement; farm consolidation; promotion of producer associations and marketing.

- Pillar IV dealt with rural development, promoting a concept of integrated rural development and setting these policies in an EU-compatible framework.

EU membership brought some changes into the Slovenian agricultural policy. As an EU member state Slovenia has lost the right to be funded through the SAPARD programme. In general there are the following three pillars left[14]:

Pillar I: national support scheme (market price support) remains the same.

Pillar II: within environmentally friendly farming measures, direct payments per hectare or per animal (Eko 0) are still in force after the accession and the payments are 10% higher compared to those before the accession. Slovenia negotiated 82% of LFAs of the whole utilised agricultural area. Therefore the "Eko 1" direct payments are renamed LFAs compensatory payments that are regulated in the Slovenian Rural development plan. These direct payments are 100% up. The measures within the Slovenian agri-environmental plan are divided into three groups: agri-environment measures (including integrative and ecological farming), measures for the preservation of biodiversity and measures of specific environmental restriction (environmentally restricted areas).

Pillar III: All the measures that were included in SAPARD are now funded by EU structural support funds in the framework of the Single Programming Document, where the tenders are published. The structural support is titled to the entitlements by the public tenders. This support includes measures that encourage improved processing and marketing of agricultural products, investments in agricultural holdings, diversification of agricultural activities, investments in forests and marketing of quality agricultural products.

The introduction of the CAP will bring some changes to Slovenian agriculture. CAP is a stable and systematically regulated system of structural supports aimed at encouraging competitiveness. The accession of Slovenia to the EU is expected to bring fatal changes in the agricultural market, because the agricultural product surpluses and unbalanced supply and demand will lead to tougher competition among farmers. As a result the prices of the agricultural products will fall and small farms will be unable to survive. The future role of Slovenian agriculture will be to produce agricultural products in the form of raw materials for the food-processing industry (Sadek-Pučnik, 2002, p. 3) on the one hand and for direct open market sales (vegetables, flowers) on the other hand.

3.4.1 Rural development in Slovenia

As in other EU member states, Slovenia has also identified development problems in the agricultural sector in the National Development Strategy. The strategy identified both low competitiveness and poor economic performance in LFAs as the major agricultural development problem. In 2000 there were 96,000 family farms and 132 agricultural holdings in Slovenia (SKOP, 2001, p. 14). As already mentioned the majority of family farms have problems with low economic size, but the target is to develop 5,000 competitive family farms through restructuring

[14] Summarised from *Zelena dežela št. 21- Pregled uredb in neposrednih plačil ter izravnalnih plačil,* Kmetijsko gozdarska zbornica Slovenije, 2004, Ljubljana.

support. The priority is to diversify the types of the farms. The priority for LFAs is to preserve the usage of UAA and encourage competitiveness. These two priorities should be achieved through LFA payments, agri-environmental measures, development and restructuring programmes for the food processing industry.

Table 5: Major agricultural development problems in Slovenia, 2004

Development problem	Goal	Target	Long-term (10-years) sources to reach goals
Low competitiveness of faming sector	Increase the number of competitive farms and encourage diversification	5000 competitive agricultural holdings of different socio-economic type	Long-term: Restructuring programmes support
Low economic size, especially in LFAs	Branched and vital structure of farming activities	to preserve the usage of 450,000 UAA to encourage the competitiveness	Long-term: - LFA payments - agri-environmental measures - development programmes and restructuring programmes for the food-processing industry

Source: Strategija razvoja Slovenije (2004).

The development problems in Slovenia result from specific rural development problems, which are as follows:

- unfavourable farm structure;
- unfavourable age and qualification structure;
- undiversified and unfavourable income structure;
- lack of employment opportunities for non-farmers in rural areas.

Liberalisation of agricultural markets and globalisation of the national economies only deepen rural development problems. Unfavourable farm household income is now additionally constrained by changed agricultural market conditions. These changes require the promotion of rural development and the introduction of new approaches and instruments in the development policy. As in many other countries Slovenia also has realised that the economic stagnancy and unexploited potential of rural areas should be an opportunity for further development by reactivating the "sleeping" potential. Therefore the Slovenian rural development policy encourages individual initiatives and programmes of local residents. This policy has a totally different approach towards development as it was in Slovenia in the past. The fundamental aim of this development policy is individual personal development, valuation and activation of local development potential. It means the promotion of personal initiatives not in the form of capital support but in the form of information and know-how support.

Slovenia therefore provides funds for rural development through the Rural Development Plan, which is worth EUR 313 million. The EU contribution to the plan will amount to EUR 282

million over the three-year period 2004-2006. The rest will be financed from the Slovene national budget. The plan aims to mitigate the differences in farm profitability in less-favoured areas that result from natural conditions, to improve the unfavourable age structure of farmers, and to provide to a sufficient extent for the farming of agricultural land in conformity with the principles of Good Farming Practice (EC, 2004 e, p. 1).

Table 6: EU Funding structure for rural development in Slovenia for 2004

	Amount approved (EUR million)	Share (in %)
Less favoured and areas with environmental restrictions	141.6	45
Agri-environmental measures	108.6	35
Meeting standards	42.6	14
Early retirement	12.7	4
Technical assistance	7.1	2
Total	**312.6**	**100**

Source: EC (2004 e, p. 1).

The Slovenian negotiators succeeded to negotiate the representation of 82% of LFAs in the whole utilised area. Therefore the highest share of the financial support for rural measures will be allocated to less favoured areas and areas with environmental restrictions. The second priority of the rural policy is to support agri-environmental measures, followed by financial support for meeting EU standards.

3.5 COMPARISON OF FARM STRUCTURE IN EU AND SLOVENIA

The farm structure of Slovenia is very different from the average farm structure of EU-15 member states, because of the significant difference between family farms and agricultural holdings that are engaged in the cultivation of agricultural land in Slovenia. This chapter encompasses a comparison of farm structure indices that were described in the previous chapters.

The only indicators that are close to EU levels are the levels of the non-agricultural labour force and unfavourable age structure of the labour force over 65 years old. All the other indicators are not comparable with the EU average levels

In general, Slovenian farm structure is comparable only to some Mediterranean EU member states, such as Greece, Italy and Portugal, where production on smaller farms is more specialised and aimed at intensive production such as horticulture, wine growing and fruit growing. Slovenia is lagging far behind the EU average in three indicators: (i) arable land per holding, (ii) level of specialisation and (iii) ESU per holding. The deviances in all the other indicators listed in the table, especially in AWU per holding that is relatively high, are contributing to unfavourable farm structure for intensive farming but at the same time this is an opportunity for specialised

and extensive farming. The second opportunity is to use the potential of forests, because of the large area of woods and forest in the country.

As shown in the following table, all the farm structure indexes of Slovene agricultural holdings largely deviate from the EU-15 indexes indicating the unfavourable farm structure in Slovenia.

Table 7: Main farm structure indexes in Slovenia and EU-15, 2000

Indexes	Slovenia	EU average	Comparable EU-15 countries
UAA per holding (ha)	5.6 ha	19 ha	Greece, Italy, Portugal
Forests/ holding (ha)	5.2 ha	10.4 ha	no EU member
Arable land per holding (ha)	2 ha	16 ha	no EU member
Grassland per holding (ha)	3.8 ha	19 ha	Finland has less
UAA for fruit production	-	2 times larger areas	Luxembourg, Portugal more scattered
Size of wine growing holdings (ha)	0.5 ha	1 ha	Greece, Italy, Portugal
LSU per holding	6.2 LSU	36 LSU	Greece
Level of specialisation (%)	40%	80%	no EU member
AWU per holding	1.2 AWU	0.94 AWU	Belgium, Denmark, France, Ireland, Portugal, Finnland
Unfavourable age structure (% of 65 years)	19%	11%	Italy, Greece, Portugal
Non-agricultural labour force (%)	50%	50%	Italy, Greece, Portugal, Spain
ESU/holding	4.7 ESU (1.3 mio SIT)	18.7 ESU (5.4 mio SIT)	no EU member

Source: SURS (2002, p. 57-135).

The comparison of structural indexes of Slovenian and EU farms clearly shows that the Slovenian farming sector crucially needs restructuring, especially of family farms. The most concerning weakness of the Slovenian farming sector is the present level of education and professional qualifications – both in agricultural and the managerial field. Consequently Slovenia is faced with unfavourable family farm structure leading to low-income and unemployment problems.

4 COMPARISON OF THE FAMILY FARMS

This part of the thesis includes the description and comparative assessment of six family farms that are located in Suhadol, an area with less favourable conditions for farming. Farms were chosen in order to present cases widely different according to the location and their primary activity, which is or was wine production and livestock breeding. The data on farms was collected with questionnaires (Appendix 11) and interviews with the farm holder-managers. Through the benchmarking approach the best practices of farming were identified. SWOT analysis, vision, goals and objective analysis were conducted for all the farms to identify possible scenarios for the farms in the future.

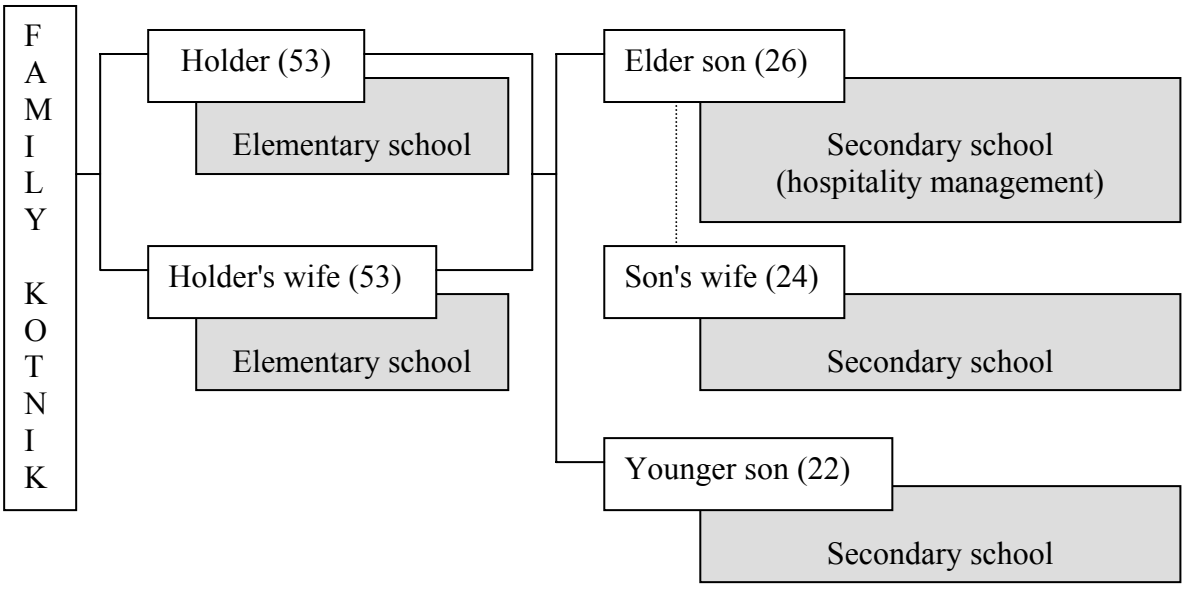
4.1 DESCRIPTION OF THE FAMILY FARMS

4.1.1 The Kotnik Farm

The Kotnik farm is 400 years old and its original size was relatively small. Once the current owner took over its management, the farm's area was expanded to its current size with land purchases, some of which were financed through subsidies from the national and local government funds. The past dairy and cattle-breeding production was replaced by wine production and five years ago with tourism (hosting visitors).

24 hectares of UAA is mainly grassland, pasture and vineyards. The half of the total UAA is rented. The farm also includes 22 hectares of forests. The farming household consists of five family members, belonging to two generations (figure 38).

Figure 38: Family, age and educational structure of family members living on the Kotnik farm



Source: Questionnaire Analysis.

The holder is 53 years old, with elementary school education. He manages all aspects of the farming business. He follows farming trends in the EU and elsewhere, and is open to

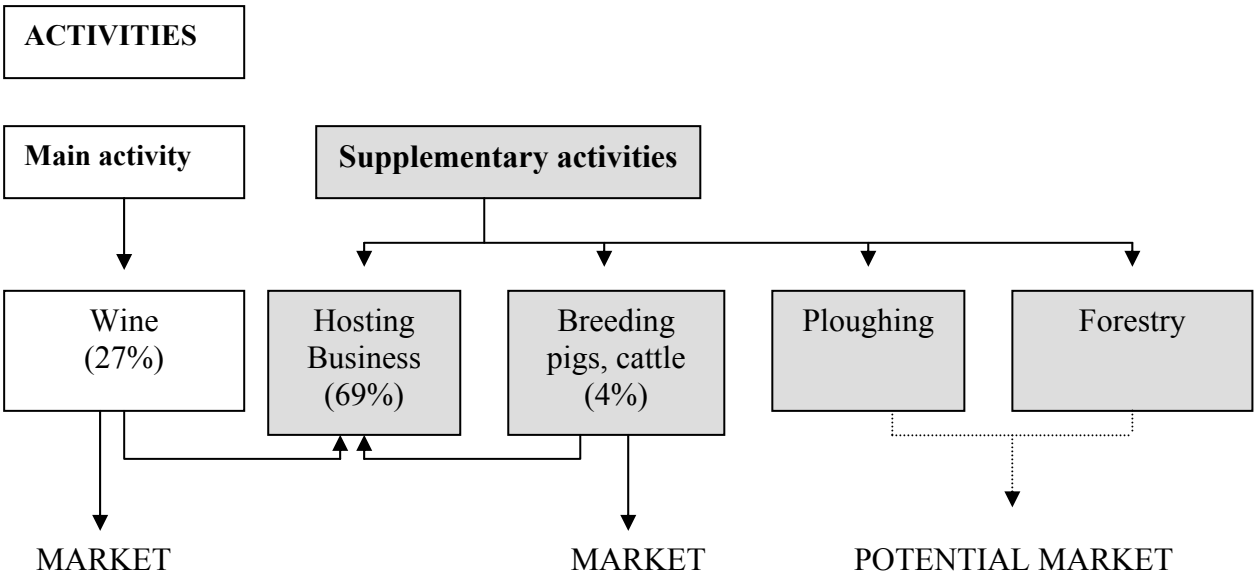
incorporating new ideas into the production workflow. His wife also holds elementary-level education. She is involved in the hosting business and coordinating organised groups of visitors. The eldest son and his wife both hold secondary school diplomas. The eldest son has an Associate Certificate in hospitality management. They both work full-time on the farm. The youngest son holds a secondary school diploma.

Wine production replaced dairy production as the primary activity about ten years ago, when the farm changed its focus to vineyards. This farm is the only one supplying customers with brand wines. As a supplementary activity the farm introduced hosting of organized groups of visitors. Pig-breeding and partly cattle-breeding are now supporting activities for the hosting business. In the winter months, the farm's holder also ploughs snow on agreement with the neighbour farmers. This service is offered because the holder has appropriate machines and equipment to plough the snow, but it is not paid. He should be paid by the local community on a contractual basis.

The hosting business enables the farm to sell the redundant products in the form of home prepared cooked food offered to organized groups of visitors. The majority of groups are hosted during weekends. The eldest son has an Associate Diploma in hospitality management and also special training for the hosting business.

The owner estimates that the vineyards are expected to reach their maximum production capacity in about five years. The livestock herd is not bought but being bred in the farm. The farm still owns large stables, leftover from earlier milk production. The main house was adapted with a larger hall to enable hosting of larger groups of visitors with home-cooked food. The winery is used both for production and storage of grapes and wine, and it is an additional point of interest for hosting the visitors. The farm is equipped for dairy and wine production. The dairy machinery is a bit older, while the wine-making equipment has been purchased more recently.

Figure 39: Structure of activities and income structure (%) on the Kotnik farm



Source: Questionnaire Analysis.

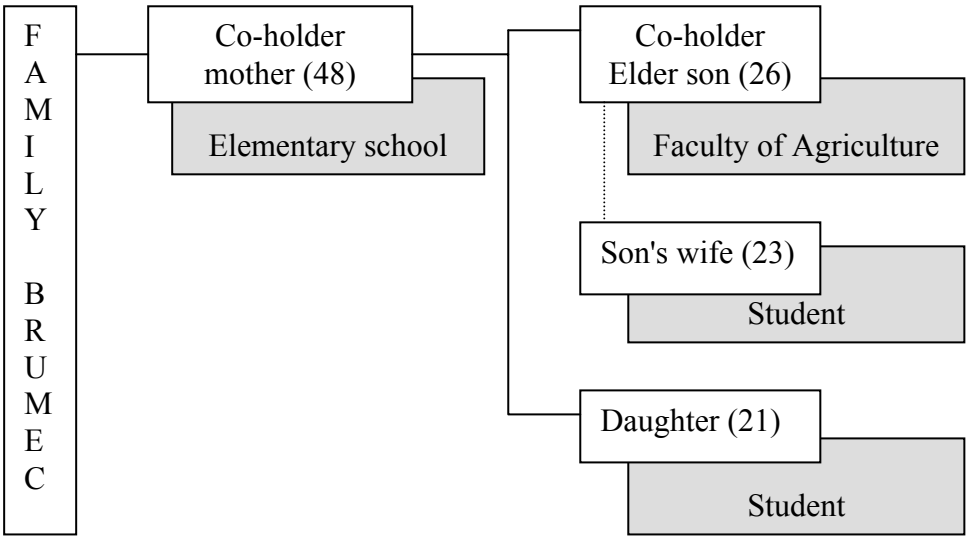
This farm's unique advantage is the excess demand for its products (especially wine) from their available supply. Its country-side tourism and hosting business is well-developed and successful. The hosting of visitors is organised by the local community or they organise individual groups for special events (i.e. birthdays, anniversaries, confirmations). The owner states that the farm's product mix is adapted flexibly in response to customer feedback (groups organised by unknown individuals).

4.1.2 The Brumec Farm

The Brumec farm is at least 100 years old. The farm has the same size of holding it had in the past. In the past the farm was specialised in breeding dairy cattle and wine production. Fruit growing and pear-schnapps production replaced dairy production as the primary activity about ten years ago, when the farm changed its focus to pear orchards and introduced pear schnapps production as a supplementary activity.

The farm has 16 hectares of UAA, including 3 hectares of rented land. The land is used as grassland, vineyards and orchards. Additionally it also manages 3 hectares of forests. The farming household consists of four family members (figure 40). The co-holders, the mother, and the elder son, both lead the farming business. The mother has elementary school, and is prematurely retired. She had worked in the factory in Loče (a nearby village), where during the restructuring process some employees were prematurely retired.

Figure 40: Family, age and educational structure of family members living on the Brumec farm

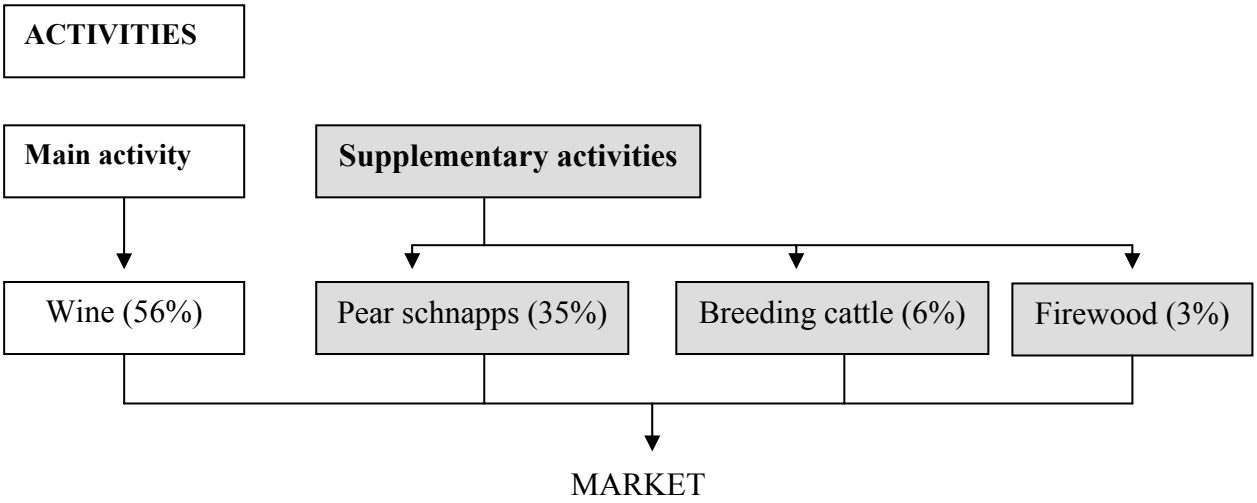


Source: Questionnaire Analysis.

The elder son is going to graduate at the Faculty for Agriculture this year. He actively participates in enology seminars in the EU and is involved in many associations. He is a member of the management committee of an Agriculture cooperative. He intends to take over the farm. His wife and his sister are still studying.

This farm is known for the production of dry wines. In the year 2004 the farm tested the introduction of bottled wine. It is producing pear-schnapps and is the only producer of this product in this geographic area. Cattle-breeding and firewood production serve as additional supplementary activities to diversify the revenue.

Figure 41: Structure of activities and income structure (%) on the Brumec farm



Source: Questionnaire Analysis.

The co-holders state that the vineyards are expected to reach their full fertility phase in about a year and the orchards are expected to reach maximum production capacity in about ten to fifteen years. The farm still owns some stables, leftover from earlier milk production. The wine cellar is used both for production and storage of grapes and wine, pears and pear-schnapps and it is an additional point of interest for the future winery. The farm is equipped for wine and pear-schnapps production. The dairy machinery is a bit older, and used only for home needs, while the wine-making and schnapps-making equipment was purchased 10 years ago.

The wine and pear schnapps is sold primarily to known customers and through a network of contacts and acquaintances. Mainly the customers buy the wine and schnapps directly on the farm. In addition, a lot of the farm's business is obtained through word-of-mouth and references. The farm's owner is an active member of the pertinent small-business associations (fruit-growing, wine-making, cattle-breeding, tourism).

This farm's unique advantage is the introduction of bottled wine and penetration of the US market. The future export to foreign markets would increase the farms competitive advantage through increased farm income. It is the only producer of pear schnapps. The owner states that the farm's product mix is adapted flexibly in response to customer feedback.

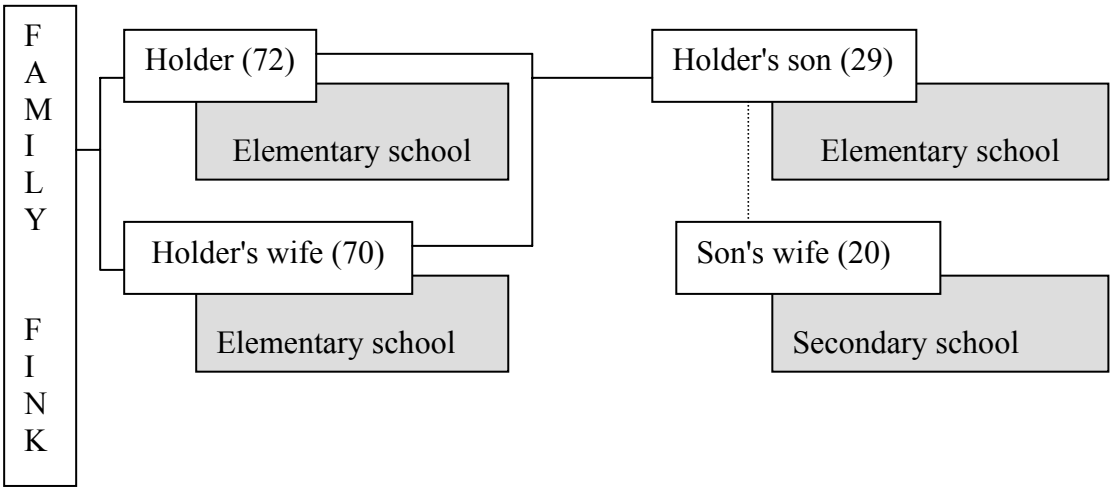
4.1.3 The Fink Farm

The Fink farm is 400 years old and its original size was much larger. One of the past holders was insolvent and half of the land was sold. The farm went through restructuring from wine

production seven years ago, when the holder decided to focus on dairy activity. A restructuring plan was successfully implemented, mainly supported by the local advisory office and financed through subsidies from local government funds.

The use of 25.5 hectares of UAA is mainly grassland and pasture. Forests cover 7 hectares. The farming household consists of four family members. The owner is 72 years old, with elementary-level education. He manages all managerial aspects of the farm. He follows dairy production methods, and is open to incorporating new ideas into the cattle breeding and production process. His wife has elementary education. The son also holds an elementary school diploma. He is fully involved and trained on the job, training in the management of the farm which intends to take over. His wife has a secondary school education.

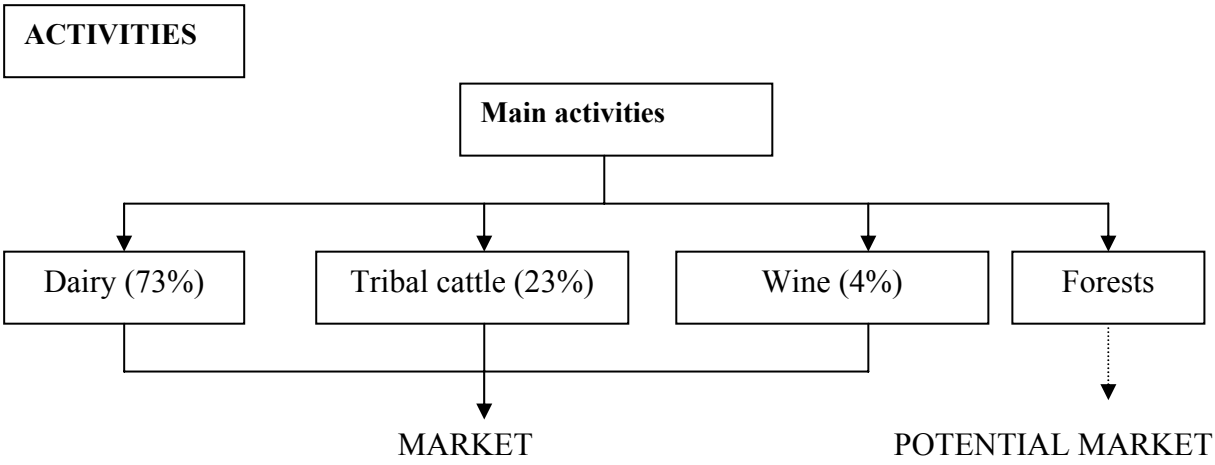
Figure 42: Family, age and educational structure of family members living on the Fink farm



Source: Questionnaire Analysis.

Dairy production replaced wine production as the primary activity when the farm changed its focus to dairy cattle. Additionally, the farm is breeding tribal cattle for the market. No supplementary activity is developed. The family is breeding dairy cattle and tribal cattle itself. The vineyard is expected to reach its maximum growing capacity in about fifteen years.

Figure 43: Structure of activities and income structure (%) on the Fink farm



Source: Questionnaire Analysis.

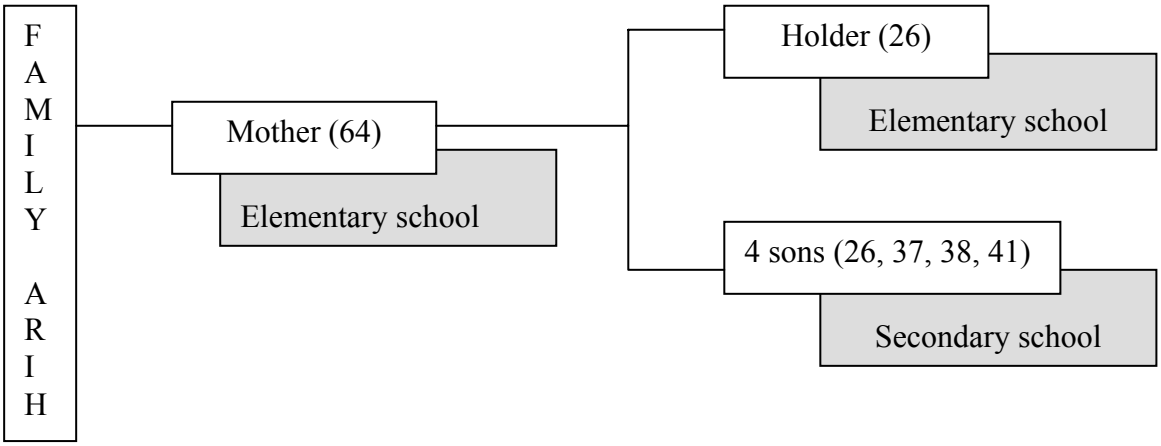
A large wine cellar is a leftover from earlier wine production. All the wine-making equipment and machinery has 60% of the capacity unused. The main house has a larger hall that could host larger groups of visitors for different occasions. All other infrastructure (stall, storage buildings, other buildings, etc) is optimally used. The farm is equipped for dairy and wine production. The dairy machinery is advanced, while the wine-making equipment is older. The holder attends training and demonstration trips organised locally. He states that the dairy production methods are satisfactorily up-to-par with other similar farms across Slovenia. The farm has its own diary.

The advantage for the farm is in the large quantities of milk produced and the monthly payment for the milk sold, but next year the farm's milk production will be subject to a controlled quota system. The current production does not exceed the calculated quotas, therefore the holder plans to increase the quantity of milk produced. The dairy production is well-developed and successful. The milk quality is appropriate to the market needs. The 72-year old owner is very open, knowledgeable and vital. They have potential for hosting visitors on the farm, but the family lacks the knowledge in hospitality management. All these advantages are derived from the advanced specialised and managerial knowledge of the holder, who successfully communicates it to other family members. Additionally human resources are handled by the owner/manger of the farm as a value.

4.1.4 The Arih Farm

The farm is over 100 years old and it is relatively small compared to the neighbouring farms. Its size has remained unchanged. In the past the Arih farm was more specialised in livestock breeding and wine production. The portfolio of activities was not diversified as it is today. The use of 8.5 hectares of UAA is mainly grassland and pasture. Of the whole UAA 1.5 hectares are rented. The farm has one relatively small vineyard and owns 2 hectares of forests.

Figure 44: Family age and educational structure of family members living on the Arih farm



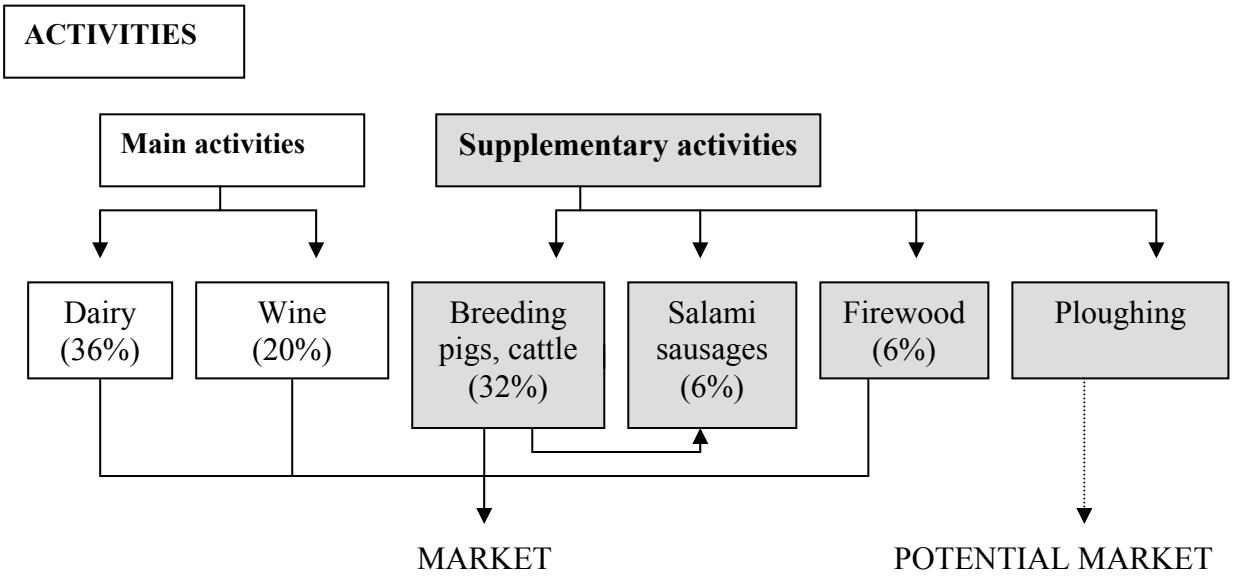
Source: Questionnaire Analysis.

Six family members live in the household, a mother and five sons. The holder is 26 years old, with an elementary school education. He manages all aspects of the farming business. His twin brother has finished secondary school and he is employed in the factory in Loče. The mother has

elementary-level education and is retired. The three brothers have associate diplomas and they have full-time jobs.

Dairy production and wine production are the primary activities on the farm. They are also breeding cattle for sale. The holder knows the standards prescribed by the intermediaries. The wine is mixed open wine. Customers say it is more drinkable compared to wines offered by the neighbouring farms and compared to bottled wine.

Figure 45: Structure of activities and income structure (%) on the Arih farm



Source: Questionnaire Analysis.

Cattle-breeding and pig-breeding are partly supplementary activities because the family produces domestic salami sausages. In seasonal months, the owner also ploughs for the neighbouring farmers who do not have their own machinery. When the demand for firewood increases, the owner buys the wood and produces firewood.

The infrastructure is well maintained. The attic of the main house is adapted as a warehouse for salami sausages. The owner estimates that the vineyards are expected to reach their maximum production capacity in about fifteen years. The family breeds young dairy cattle in order to renew the herd. This farm is equipped for dairy and wine production. Both the dairy machinery and the wine-making equipment is 12 years old. Due to the small quantities of milk being sold, the farm does not own a dairy. The owner distributes milk to the nearest dairy. The owner attends training and demonstration trips to other successful farms in the EU and elsewhere, when the costs of the training are not unreasonably high. The production of firewood makes it possible for the farm to make use of the unused capacity of the forest machinery and equipment. The same goes for ploughing.

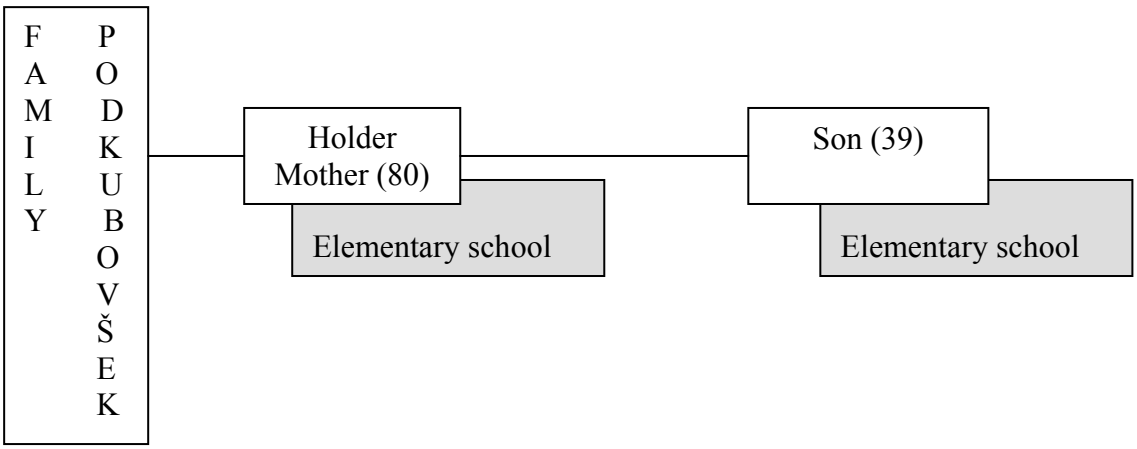
This farm's unique advantage is the high level of diversification of the farm's activities bringing higher income per produced unit. Its secondary activities are inventive and are successfully sold to customers. The salami sausages are offered to the customers who are buying wine (some kind

of combined product is offered). The owner states that the farm's product mix is adapted flexibly in response to customer feedback. The farm is not affected by the lack of capital. The farm's owner is relatively young, flexible and open to new ideas.

4.1.5 The Podkubovšek Farm

The Podkubovšek farm is more than 100 years old. Earlier the farm was specialised in dairy and livestock breeding. This activity was replaced by wine production. The farm is still breeding smaller quantities of livestock. The UAA of 21 hectares are mainly grassland, pasture and vineyards. The farm also includes 5 hectares of forests.

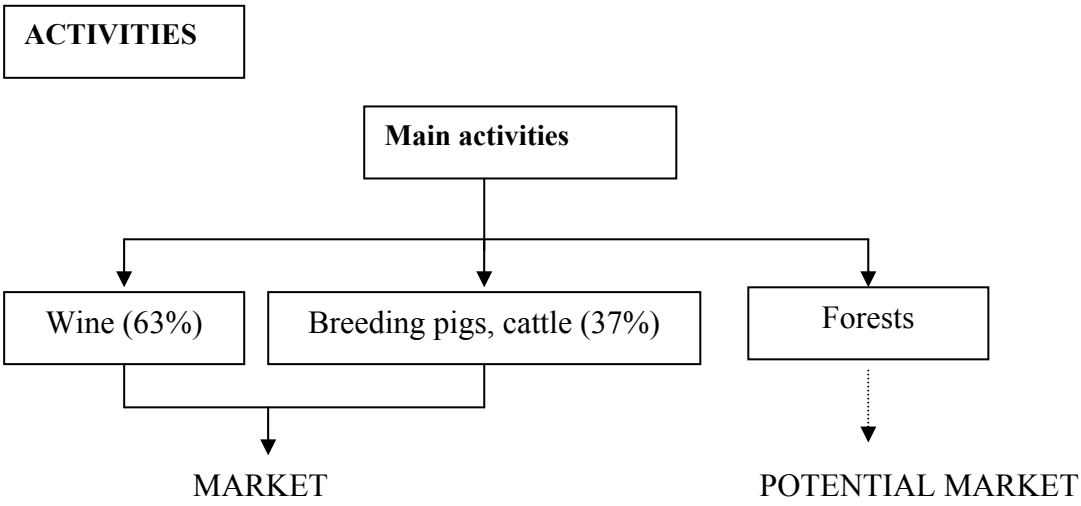
Figure 46: Family, age and educational structure of family members living on the Podkubovšek farm



Source: Questionnaire Analysis.

The farming household consists of two family members. The owner, a retired mother, is 80 years old, with elementary school education. She lives on the farm with her son, who has also finished elementary level education.

Figure 47: Structure of activities and income structure (%) on the Podkubovšek farm



Source: Questionnaire Analysis.

Wine production, cattle-breeding and pigs-breeding are the primary activities. Due a lack of labour force there is no supplementary activity, but there were some trials with the production of wooden poles for vineyards.

One vineyard is a year old. The owner estimates that the remaining vineyards are expected to reach their maximum production capacity in about ten years. The young cattle and pigs are bred on the farm. The main house is in bad condition, with toilets which are still outside the house. The other infrastructure is in better condition, but it is poorly managed and maintained due to the lack of labour force. The farm is equipped for wine production, cattle-breeding and pig-breeding. The wine-making equipment has been purchased recently (three years ago), when the farm moved from dairy to wine production.

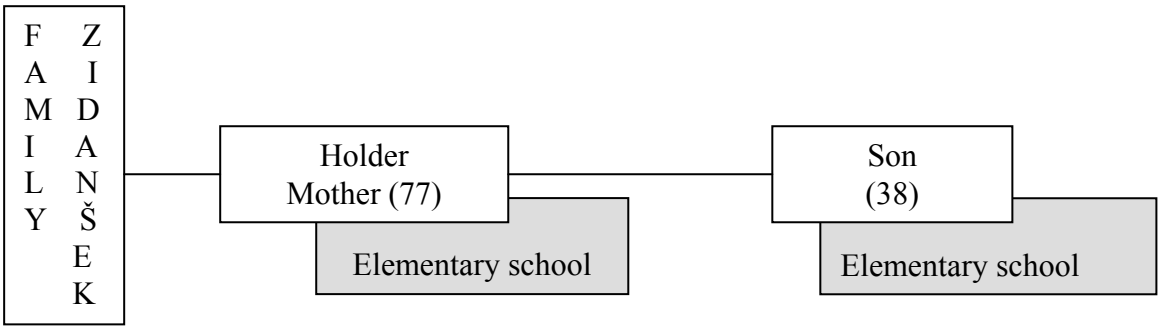
The lack of labour force and the age of the farm's owner largely influence the farm's development level. Although the wine-growing process is automated and the son is flexible, he lacks the time to exploit fully the available resources and to manage the infrastructure in a proper way. The active son is not married. He states that young women are not interested in living and working on the farms, because they do not see any prospects in farming, especially in areas such as Suhadol, where the conditions for farming are unfavourable and families are faced with low income problems.

4.1.6 The Zidanšek Farm

The Zidanšek farm is 300 years old and it has retained its original size. A hundred years ago it was a successful mixed farm producing a diversified mix of products (a special sort of cattle, eggs, fruit, wine). The previous ownership lacked investment in the diversification of activities.

Grassland, pastures and vineyards are located on the UAA of 10 hectares and 1.5 hectares is rented. The farm also has 8 hectares of forests. The farming household consists of two family members. The owner, a retired mother, is 77 years old, with elementary school education. She lives on the farm with her son, who has also finished elementary level education. Mainly the mother runs all aspects of the management. They are both involved in farming activity.

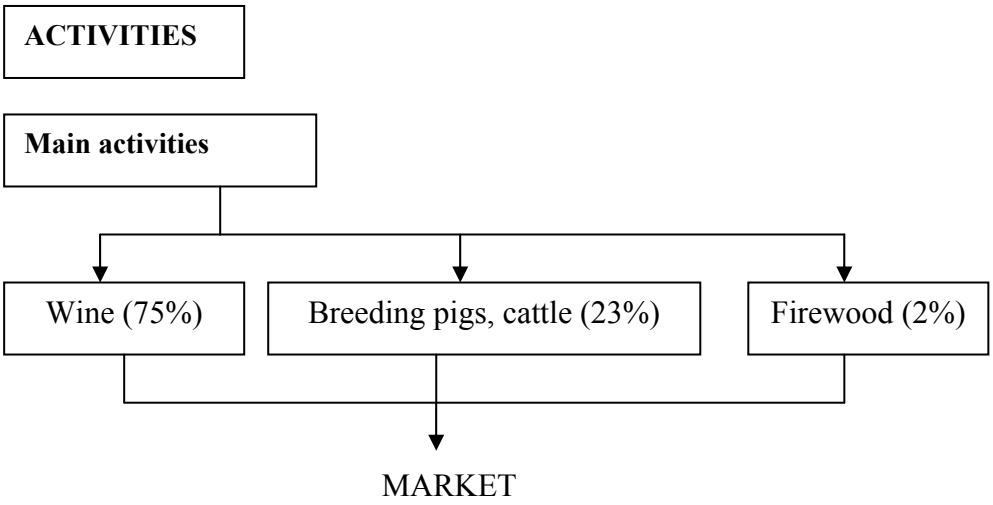
Figure 48: Family, age and educational structure of family members living on the Zidanšek farm



Source: Questionnaire Analysis.

Wine production, cattle-breeding and pig-breeding are the primary activities. There are no supplementary activities and due to the lack of labour force on the farm, there have been no attempts to introduce them.

Figure 49: Structure of activities and income structure (%) on the Zidanšek farm



Source: Questionnaire Analysis.

Two vineyards are more than fifty years old, the rest of the vineyards already reached their maximum production capacity. The infrastructure (stables, drying–frame, cellar) is on average 50 years old. Above 30% of the infrastructure is not used. The infrastructure is poorly managed due to the lack of time and labour force. The farm is equipped for wine production, cattle-breeding and pig-breeding. The wine-making equipment was purchased 30 years ago. The active family member does not attend any training or demonstration trips. The farm's wine production methods are still traditional and only partly comparable to other similar families among the neighbouring farms. The cattle-breeding is not at an advanced level. The farm is breeding pigs in the traditional way.

The lack of labour force and the age of the farm's holder largely influence the farm's development level. 30% of the UAA is abandoned. The active family member is not motivated and there are social problems appearing (alcohol addiction). There is a lack of decision-making and flexibility. The mother is highly dependent on the rest of the family members – not living on the farm – in the form of their occasional help on the farm. The wine-growing is not automated and 70% of the process of operations involves hand work. The farm is very scattered (in 5 pieces) and has redundant and old machinery, tools and technology.

4.2 ANALYSIS OF THE CURRENT PRODUCTION, FINANCIAL, MARKETING AND ORGANIZATIONAL ASPECT OF THE COMPARED FARMS

Since this part of the analysis includes also financial analysis of farm household income of the observed farms some statistical data for Slovenia is reviewed first. In Slovenia the average farm household income was estimated at 1.078 million SIT in 2002. 20% of all the farms had negative

farming income. Two thirds of all farms had not reached 40% of the average farm household income. Direct payments amounted to 30% of the income. Additional to those payments one third of household income were social transfers and pensions. As in all other developed countries farming income in Slovenia is not the highest in the structure of household income. The labour productivity, compared to other activities, is extremely low. Gross value added per annual work unit in Slovenian agriculture is 718,000,00 SIT (3,017 EUR) compared to 1.5 million SIT in other sectors. In economic terms the work on the farms is not rational. Due to poor opportunity costs and labour costs, employment chances outside farming for this labour force is limited. Therefore agriculture is rather playing the social role (DAES, 2003, p. 280-281).

The following analysis of the individual farms in Suhadol includes the analysis of five groups of indicators: (A) production indicators, (B) financial indicators, (C) market (purchase and sales) analysis, (D) product marketing and distribution, and (E) organisational indicators. This data is the basis for SWOT analysis. Market analysis of purchasing does not include the expenses for phone, TV, water and general administrative material, because there are some farms that do not have available data on these costs. The sales market analysis does not include the produced products being used for home needs, it only includes market receipts. The pensions and LFA payments are excluded from the analysis because both of these incomes are not guaranteed in the long-term. The direct payments, including LFA payments, vary between farms. They add up to 1 million SIT annually, but this amount will be increased next year because of the introduction of the CAP. This is an additional reason why the direct payments are excluded from the analysis.

4.2.1 The Kotnik Farm

(A) Production indicators

Currently the farm is producing 25,000 litres of open brand wine; 20,000 litres of white wine and 5,000 litres of red wine. 3,000 litres are bottled. 20% of the produced wine is being used for home needs. The farm is famous for its home-produced and home-prepared food, especially warm food that is served to 1000 visitors annually. The food is served with the farm's brand wines a la carte. The specialty of the house is the crescent shaped rolls. The farm's hosting business enables the farm to sell the excess products (meat, vegetables, fruit). The farm sells around 5 cattle per year.

The farm produces hay and maize for feed-stuff. Because of the land structure, above 50% of the feed production is done through hand work. The vineyards are partly cultivated automatically, 50% is still through hand-work. The farm is using wine-producing technology that is 8 years old. The owner states that there is a need for new wine-cellar equipment.

(B) Financial indicators

Although the demand exceeds the supply of wine, open wine-making barely reaches the break even point. The bottled wine is more profitable compared to open wine. The supplementary farming activity (tourism) is registered and is more profitable compared to the primary activity – wine making. This farm is the only farm which keeps accounts. The farm receives direct

payments within the programme of acreage direct payments and direct payments per animal and additionally the compensatory payments for LFAs.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is being analysed on criteria of prices and payment conditions. Although the farm is selling the redundant products to the hosting visitors, there are still high costs of raw materials used for this activity. The costs for tourism, crop spray and insurance together accounted for approximately 80% of the total costs (Appendix 4).

(ii) Sales market analysis

The main source of income is tourism that contributes approximately 69% of the farm's sales revenue. According to the criteria of revenue, tourism is the primary activity. Wine sales are bringing in only 27% of sales revenue. Cattle-breeding is a supporting activity for the hosting business therefore the farm does not trade in large quantities of livestock. The livestock trade represents only 4% of the sales revenue (Appendix 4).

(D) Product marketing and distribution

The wine is sold primarily to established customers and through a network of contacts and acquaintances. The customers buy the wine directly from the farm. A smaller part is also sold to the visitors.

The farm is listed in the main tourist guide promoting alternative country-side tourism. In addition, a lot of the farm's business is obtained through word-of-mouth and references. The farm's holder is an active member of the pertinent small-business associations (cattle-breeding, wine-making, tourism). The farm also provides post-sales customer support. The wine sale is increasing. Livestock is sold to the Agriculture and Forests Association (KGZ).

(E) Organisational indicators

The farm has a flat organisational structure. The holder is the major decision maker and he runs the business and organises the work. The eldest owner's son is being involved in the management process to gain experience in the decision making process.

4.2.2 The Brumec Farm

(A) Production indicators

The yearly wine production accounts for 12,000 litres of open dry wine, 2,000 litres of red wine and the rest is white wine. This year 1,500 litres were bottled. 25% of the produced wine is used for home needs. The family produces 1,000 litres of pear schnapps, which is also bottled. The family breeds around 3 cattle annually for sale and produces around 10m^3 of firewood.

75% of the work is automated. The farm is using wine-producing technology that is 10 years old. One of the co-holders attends training and demonstration trips mainly in the field of wine and pear schnapps production to other successful farms in the EU and elsewhere. He states that the

farm's wine production, pear-growing methods are satisfactorily up-to-par with other similar farms across Slovenia. More effort is put into development, promotion, and maintenance of the farm's pear schnapps production.

The farm is producing hay and maize that are used for feed stuff. Because of the land structure, above 25% of the feed production is hand work.

(B) Financial indicators

The supplementary farming activity (pear-schnapps production) is more profitable than the open wine-making (the later barely provides its break even). The bottled wine (exported) and bottled pear-schnapps generate the same level of profitability. The livestock is not profitable. The farm receives the direct payments and additionally the compensatory payments for LFAs.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is being analysed according to the criteria of prices and payment conditions. The high insurance costs (23%) are due to the fact that the farm insures buildings, machines, vineyards and orchards, additionally to personal insurance. The insurance, crop spray, machinery, raw material and fuel costs together contribute 80% of all costs (Appendix 5).

(ii) Sales market analysis

Income derives mainly from wine and pear schnapps sales that together bring in 90% of the farm's sales revenue. Livestock and wood sales are contributing only 9% of sales revenue. Pork production is currently only for home needs and could be processed and used as cold cuts with the tasting of wine (Appendix 5).

(D) Product marketing and distribution

The wine is sold primarily to established customers of all ages, through a network of contacts and acquaintances. The customers buy the wine both directly on the farm and some is distributed to the end customers.

The farm's marketing is through word-of-mouth and references. The co-holders are active members of the pertinent small-business associations (cattle-breeding, wine-making, tourism, machinery association, association of women working on the farms). The wine sales are increasing. The livestock is sold to the Agriculture and Forests Association (KGZ). Last year bottled wine was introduced which is bottled by the cooperative.

(E) Organisational indicators

The farm has a flat organisational structure. Both co-holders are decision makers and the son runs other administrative tasks and organises the work. The family members are specialised in wine and fruit production and are not specifically responsible for particular work operations that have to be done: everyone takes part in all operations.

4.2.3 The Fink Farm

(A) Production indicators

Annual milk production accounts for 182,500 litres and tribal cattle accounts for 20 animals annually. This farm is the only producer of such large quantities of milk in this geographic area. Wine production accounted for 4,000 litres of open mixed wine, 1,000 litres of red wine and 3,000 litres of white wine. 25% of the produced wine is used for home needs. The family breeds pigs for home needs.

Currently they lease the cold storage with a capacity of 1,000 litres. The milk production equipment is fairly new. The removal of manure is automated and the stable is equipped for drying the hay. Only 40% of the work is hand work. The farm uses traditional wine-producing technology.

Tribal cattle are bred due to their higher price on the market compared to cattle. The farm is producing hay and maize that are used for feed stuff. Because of the land structure, above 50% of the feed production is through hand work. The holder states that the farm's milk production and livestock breeding methods are satisfactorily up-to-par with other similar farms across Slovenia.

(B) Financial indicators

The main farming activity (dairy) is more profitable than the wine-making (the latter barely reaches break even point) and it provides a monthly cash flow. The dairy production income is the main income, and due to the quantity it is also more profitable than livestock sales. The livestock is sold as tribal cattle and therefore at a higher price. The family receives two old age pensions and the farm's income is not taxed because the holder is a pensioner. The pensions are improving monthly liquidity. The farm receives the direct payments and additional compensatory LFA payments once a year.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is being analysed according to the criteria of prices and payment conditions. The highest expenses are listed for feed stuff, which is only partly produced on the farm. The feed stuff, fuel and fertilisers together add up to 80% of all costs (Appendix 6).

(ii) Sales market analysis

The highest share of the sales revenue is milk sales (73%). The tribal cattle sales bring in 23% of the farm's sales revenue. Wine contributed the highest share in the past, but nowadays it contributes only 4% (Appendix 6).

(D) Product marketing and distribution

The milk is sold to Celjske mlekarne, whose cold storage truck picks up milk directly from the farm every two days. The tribal cattle are sold to the Agriculture and Forests Association (KGZ). The wine is sold only to established customers and through traditional lines of contact mainly through word-of-mouth. The customers buy the wine directly on the farm. The farm's holder is

an active member of the pertinent small-business associations (cattle-breeding and wine-making).

(E) Organisational indicators

The farm has a centralised organisational structure. The holder is the decision maker and does other administrative work. Family members are specialised in dairy and wine production. Responsibilities are allocated on the basis of different operations.

4.2.4 The Arih Farm

(A) Production indicators

The farm is producing 20,000 litres of milk annually that is produced by moderately advanced production methods. The livestock are bred with comparable methods as neighbouring farmers. Hay production is 50% automated. Currently the farm is producing 4,200 litres of open mixed wine; 3,000 litres of white wine and 1,200 litres of red wine. Almost 30% of the produced wine is being used for home needs.

The holder estimates there is 50% hand-work in the vineyard cultivation. The new and adaptable methods learned from the training and demonstration trips to other farms are incorporated in the production methods where possible. The holder states that the farm's wine production methods are satisfactorily up-to-par with other similar neighbouring farms, while more effort is put into the introduction of new products to diversify the farm's activity and revenue. The farm sells redundant products, particularly pork as salami sausages in a combined product together with wine. The farm makes salami sausages using their own recipe traditionally used by the farm in the past. The salami sausages are stored in the attic in the main house that enables them to satisfy the demand throughout the year. The farm is producing hay and maize that are used for feeding stuff. Because of the land structure, over 50% of the feed production involves hand work.

(B) Financial indicators

Despite of the small quantities of milk produced, the milk is more profitable than the wine which barely reaches break even point. Milk brings in a monthly income resulting in higher liquidity. On the other hand only 50% is paid in cash and the other 50% farmers must use in the shops of KGZ. The supplementary farming activities (salami sausages and firewood) are more profitable compared to wine making. While there are six family members living on the farm, the household's costs are divided among them. There is one pension as a regular monthly income, and there are four salaries of four family members employed. That results in higher monthly liquidity and therefore no lack of capital. The farm receives the direct payments and compensatory payments for LFAs, once a year.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is being analysed according to the criteria of prices and payment conditions. The highest expenses are on fuel and insurance. The fuel, insurance, fertilizers and crop spray bring together 80% of all costs (Appendix 7).

(ii) Sales market analysis

The main source of income is milk that contributes 36% of farm's sales revenue, followed by wine sales accounting for 20%. Cattle sales are bringing in 17% of sales revenue. Sales of pigs contribute approximately 14% of sales revenue. The rest of the pig and cattle meat is a supporting activity for making salami sausages therefore the farm does not trade with pigs. The sales of salami sausages represent 6% of the sales revenue (Appendix 7).

(D) Product marketing and distribution

Milk is sold to the milk processing company Celjske mlekarne. Cattle are sold to the intermediate KGZ. The milk is being distributed to the nearest dairy (2 km). The remaining products are sold primarily to established customers and through a network of contacts and acquaintances. The farm sells excess products – pork processed into salami sausages. The customers buy wine, salami sausages and firewood directly off the farm. The most common method of selling the farm's products is through word-of-mouth and references in the form of direct selling.

(E) Organisational indicators

The holder is the major decision maker and he runs the business.

4.2.5 The Podkubovšek Farm

(A) Production indicators

Currently the farm is producing 12,000 litres of open mixed wine; 10,000 litres of white wine and 2,000 litres of red wine. The farm sells 10 head of livestock annually.

Livestock are bred by methods comparable to the neighbouring farmers. The wine cultivation is mainly automated, while the new vineyards were planted accordingly. The wine producing equipment is better compared to the neighbouring farms. The holder estimates there is 30% of hand-work in the vineyard cultivation. The farm is producing hay and maize that are used for feeding stuff. Because of the land structure, more than 50% of the feed production is hand work.

The cattle-breeding is at the advanced level. The farm is breeding pigs in the traditional way. The production process and methods are 50% automated.

(B) Financial indicators

The wine hardly breaks even, especially because of evenly higher crop spray frequency, which increases production costs. The livestock is more profitable. There is a pension, which contributes to monthly income and raises liquidity each month. The farm receives the direct payments and compensatory payments for LFAs, once a year.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is being analysed according to criteria of prices and payment conditions. On this farm there are the highest costs of crops spray, fuel and fertilizers that together contribute

82% of the total costs. The active labour force states that the fuel costs are higher since the introduction of automated cultivation of vineyards and hay (Appendix 8).

(ii) Sales market analysis

The main source of income is wine that contributes 63% of the farm's sales revenue, followed by livestock sales accounting for 24%. Pig sales are bringing in 13% of sales revenue (Appendix 8).

(D) Product marketing and distribution

The wine is sold primarily to established customers and through a network of contacts and acquaintances. The customers buy the wine directly from the farm. The cattle are sold to the intermediary KGZ. The sale of pigs is organised through the private network of customers. The sale of all products is increasing.

(E) Organisational indicators

There is only one active family member, who organises all the operations. He is the major decision maker and he runs the business, but he is not a holder.

4.2.6 The Zidanšek Farm

(A) Production indicators

Currently the farm is producing 4,000 litres of open mixed wine; 2,500 litres of white wine and 1,500 litres of red wine. 25% of the produced wine is being used for home needs. The family sells 3 head of livestock annually. Last year the farm sold 3m^3 of firewood.

There is 80% of hand-work in the vineyard cultivation. The wine-producing technology is at a low level. The active family member states that the farm's wine production methods are traditional. The farm is producing hay and maize that are used for feeding stuff. Due to the land structure 70% of feed production involves hand work.

(B) Financial indicators

The primary wine-making is not profitable (it barely reaches break even point). The livestock is more profitable then wine, but there are a small number of cattle in herds and a small number of animals sold. The mother receives a pension and the farm is entitled to direct payments and compensatory payments for LFAs.

(C) Market analysis (purchase and sales market)

(i) Market analysis of purchasing

The purchasing market is not thoroughly analysed according to criteria of prices and payment conditions. The farm has not used the repayment of fuel excise. The highest costs are for insurance, crop spray, fertilizers and fuel totalling above 80% of all costs. The insurance costs are high, if we are considering that this is only a personal insurance (Appendix 9).

(ii) Sales market analysis

The main source of income is wine that contributes 75% of the farm's sales revenue, followed by livestock sales accounting for 13%. Pig-breeding brings in 10%. The share of the firewood sales

is negligible. If one compares the sales market of the Podkubovšek and Zidanšek farm, since they both have one active labour force, it may be concluded that the labour force is not a constraint for reaching higher production quantities (Appendix 9).

(D) Product marketing and distribution

The livestock is sold to the intermediary Agriculture and Forests Association (KGZ). The wine and pigs are sold primarily to established customers through a network of contacts and acquaintances. The customers buy the wine directly off the farm. The farm does not analyse the market or its customers.

(E) Organisational indicators

Currently it is only one family member who represents the labour force. The holder is the major decision maker and she runs the business.

4.3 MANAGERIAL TOOLS FOR OPERATING A FARM[15]

The business process generally encompasses two business functions: (a) strategic planning process and (b) organising and operations management. The aim of the first function is to select the proper strategy for a business unit (in this thesis a farm) and implement it. The second function deals with incorporation of the strategy in the farm's organisation and operations.

(a) STRATEGIC PLANNING PROCESS

Planning is the first business function. It consists of a sequence of activities. There are nine steps suggested in the strategic planning process (Robbins, 1995, p.144) and are explained below.

Figure 50: The Phases of the Business process

BUSINESS PROCESS

a. Strategic planning process
   i. Defining mission
   ii. Establishing objectives
   iii. Analysing organisation's resources
   iv. Scanning the environment
   v. Forecasting
   vi. Assessing opportunities and threats
   vii. Identifiying and evaluating alternative strategies
      1. SWOT analysis
   viii. Selecting the strategy
   ix. Impementing the strategy
   x. Organising the assets
   xi. Environmental protection

Source: Hunger et al. (1993, p. 150).

[15] Summarised from Hunger et al. , Strategic Management, 1993, Reading Addison-Wesley Publishing Company.

i. Defining the organisation's mission

The mission defines the organisation's purpose and seeks to answer the question: »What business are we in?« Defining the mission forces the management to identify the scope of organisation's product or service. The mission clarifies the organisation's purpose for the management.

ii. Establishing Objectives

Objectives are the foundation of any planning programme. Objectives translate the mission into concrete terms.

iii. Analysing organisation's resources

Analysis of the organisation's resources should identify its comparative advantages, that is, the relative competency that the organisation has over its present and future competitors. Evaluation of an organisation's resources must look at the organisation's weaknesses at the same time, so that steps can be taken to overcome those weaknesses.

iv. Scanning the environment

There is a need to scan the environment in which the farm is operating, basically to identify various political, social, economic, and market factors that have direct impact on the organisation.

v. Forecasting

This step is a more detailed effort to forecast the possible occurrences of future events. Forecasts cover external factors, which have been listed in step 4. They also include internal factors, such as revenue projections, estimate of expenses at various levels of operation, estimates of capital needs for working capital and investment in plant and equipment, and forecasts of human resource requirements for present and future operations. Organisations whose management can develop accurate forecasts of external and internal factors have a distinct advantage over their competitors.

vi. Assessing opportunities and threats

The analysis of the organisation's resources and the forecasts of internal and external factors form the data base for assessing opportunities and threats for the organisation.

vii. Identifying and evaluating alternative strategies

Once opportunities and threats are identified, it is necessary for the organisation to seek a set of alternatives, which the organisation can exploit to its advantage. It should explore the possibilities of diversification, or adding a new product or product line or looking for new markets. It should also analyse the threat the organisation is facing either from competitors or on account of a new product or on account of a change in Government policies. It should take action to safeguard itself from such threats.

1. *SWOT analysis*

A strategic analysis includes both the external economic environment in which the farm operates and the internal characteristics of the farm. This analysis provides data for setting and evaluating

alternatives. SWOT analysis can be used as a part of a strategic analysis. S.W.O.T. is an acronym for farm's key internal Strengths and Weaknesses and its external Opportunities and Threats. One part of SWOT reviews general trends in the economy, technology drivers that are shaping the specific industry, changes in government policy or regulations and potential actions of competitors. SWOT enables us to identify threats to the continued viability of the farming, and opportunities for which the farming should prepare itself. On the other hand SWOT analysis includes an internal review of the farming, identifying its strengths and weaknesses. The purpose is to bring to light truly critical issues facing the farming. SWOT analysis is conducted by generating the SWOT matrix.

The SWOT matrix illustrates how the external opportunities and threats; and internal strengths and weaknesses result in four sets of possible strategic scenarios available to the farm (Hunger et al., 1993, p. 158-159).

Figure 51: Generating S.W.O.T. matrix

INTERNAL FACTORS EXTERNAL FACTORS	**STRENGTHS** list 5-10 internal strengths	**WEAKNESSES** list 5-10 internal weaknesses
OPPORTUNITIES list 5-10 external opportunities	**STRENGTHS-OPPORTUNITIES STRATEGIES** **Generate strategies that use strengths to take advantage of opportunities**	**WEAKNESSES-OPPORTUNITIES STRATEGIES** **Generate strategies that take advantage of opportunities by overcoming weaknesses**
THREATS list 5-10 external threats	**STRENGTHS-THREATS STRATEGIES** **Generate strategies that use strengths to avoid threats**	**WEAKNESSES-THREATS STRATEGIES** **Generate strategies that minimize weaknesses and avoid threats**

Source: Hunger et al. (1993, p. 158-159).

viii. Selecting the strategy

Once the alternative strategies have been enumerated and appraised, the management decides whether to go on with the present production or to bring about some changes, which are consistent with the organisation's mission and objectives, and well suited to the organisation's capabilities.

ix. Implementing the strategy

The final step is implementation. The best of strategies can go awry if management fails to translate the chosen strategy into programmes, policies, budgets and other long-term and short-term plans necessary to carry it out (Robbins, 1995, p.144-149)

Planning on the farm is mostly not performed in a suggested way as shown in the figure 50, often it is going on only in the farmer's head, and therefore it is not sufficient to achieve any significant results, when there are no real goals determined.

(b) ORGANISATION AND OPERATIONS MANAGEMENT

4.4 SWOT ANALYSIS OF FARMS AND POSSIBLE SCENARIOS

This part of the thesis introduces only the possible scenarios for the individual observed family farms. The SWOT analyses of the individual farms (Appendix 10) are the basis for the possible scenarios described below.

All the holders stated that the greatest weakness of the their farms is the location of the farms in the LFA, which is at the same time an opportunity because the farms will be subject to higher direct payments. The majority of the farms do not have enough available capital to support future investments. Higher direct payments might partly support new investments. All the farms face marketing problems therefore there is an opportunity to initiate in the local community the opening of a service unit in Suhadol to support marketing of products and other activities needed in this geographical area. Therefore a common initiative is a necessity. Since all the farms have an opportunity to use the free consultations given by the Advisory Office and Business Centres they should use this opportunity, especially if establishing a service unit. None of the farms are entitled to structural help this year, because they do not fulfil the conditions to gain this support. All the farms are located along the “vinery road”, therefore they could market themselves within this project. A progressive merger of all the farms into one consolidated farm could be a common scenario.

4.4.1 The Kotnik Farm

Possible scenarios for the Kotnik farm:

Scenario 1: build a partnership with some of the neighbouring farms that are specialised in wine production to increase the produced quantity to the demanded quantity and to take on additional labour force. The farm should use the loan to finance the partnership.

Scenario 2: purchase additional land from the large neighbouring farms to expand the current vineyard area. Financially it should be supported by a loan.

Scenario 3: target weekday visitors and modernise the upper floor of the vinery for family apartments. In the year 2004 the farm should use the loan and it should fulfil the conditions for gaining structural help in the year 2005.

Scenario 4: plant new orchard on the current arable land and introduce home-made juices additionally to wine to widen the product mix. This year the farm should use the loan and it should fulfil the conditions for gaining structural help in the year 2005.

4.4.2 The Brumec Farm

Possible scenarios for the Brumec farm:

Scenario 1: in the first place fulfil the conditions for getting the structural support in the year 2005 and invest in new vinery to target organised groups of tourists for wine tastings and cold cuts (to sell redundant products).

Scenario 2: introduce additional products to widen the product mix (i.e. salami sausages, dry fruit, home made pear or grape juice). Salami sausages should be marketed in partnership with neighbouring farms which also produce them. In this case the same quality of salami sausages should be reached. Identify the farmers that are already marketing dry fruits and home-made pear or grape juice and try to market in a partnership. Offer dry fruit and home-made pear or grape juice as a combined product. Financed by the loan.

Scenario 3: introduce some creative packaging (smaller and special form of bottles) for pear-schnapps which can be offered for presents (like business presents) to increase the sales and production. Financed by the increased LFA payments.

Scenario 4: if there will be any additional demand for wine on the U.S. market penetrate that market, increase the cooperation with an export cooperative, negotiate a better price. Financed by the increased LFA payments.

4.4.3 The Fink Farm

Possible scenarios for the Fink farm:

Scenario1: increase the number of dairy cattle (by increasing the number of standing places in the stable) to reach the prescribed quotas and buy additional quotas to produce optimal quantity and ensure the appropriate income from dairy activity. Financed by own capital and increased LFA payments.

Scenario 2: invest in its own cold storage and in garages for the machinery. Financed by a special loan through the business centres. Try to fulfil the conditions for structural support and gain structural support in the year 2005.

Scenario 3: transfer of ownership to the successor to increase the motivation of the young couple working on the farm. Use the structural support offered for young farmers. Use the main house for hosting business through building contacts with the tourist office running the nearest monastery Žička kartuzija.

Scenario 4: think about the diversification of activities by widening the product mix (new milk products like cottage cheese) and reducing the dependence on one product only. Financed by increased LFA payments.

4.4.4 The Arih Farm

Possible scenarios for the Arih farm:

Scenario 1: invest in automation of the production process and apply for the standard for salami sausages. Increase the production of salami sausages. Financed by their own capital and increased LFA payments.

Scenario 2: use free advisory service and invest to fulfil the conditions for tendering for structural support. Financed by own capital.

Scenario 3: introduce home-made apple juice additionally to wine to diversify the product mix. Financed by increased LFA payments.

4.4.5 The Podkubovšek Farm

Possible scenarios for the Podkubovšek farm:

Scenario 1: invest in the main house and build inside toilets to satisfy proper living conditions. In the year 2004 use a special loan provided by the business centre and try to fulfil conditions for getting the structural support in the year 2005.

Scenario 2: transfer the ownership to the successor to raise the motivational level of the active family member. To ensure the future successor coming after the current active labour in order to fulfil the conditions to gain the structural help.

Scenario 3: introducing grape juice or grape vinegar to widen the product mix. Financed by increased LFA payments.

Scenario 4: build a partnership with some successful neighbouring farm demanding the additional grapes for wine production. Under this scenario only vineyards would be cultivated and grapes sold. This farm would not need additional time for wine cellaring and marketing of wine.

4.4.6 The Zidanšek Farm

Possible scenarios for the Zidanšek farm:

Scenario 1: make the decision whether the currently active family member will continue farming or not. If he decides not to farm further he should find himself full-time employment in the

nearest village and sell or rent the land to the neighbouring farms interested to buy additional land.

Scenario 2: if he decides not to continue farming because of the lack of know how in wine cultivating, lack of labour force or the lack of his own organisational skills, he should build a partnership with some vital neighbouring farm interested in managing this farm and marketing its products.

Scenario 3: if he decides to continue farming, restructuring of the farm activities, management, organisation and operations are needed. In the first instance the farm must ensure the conditions needed to tender for structural support. Introduce the restructuring plan and a new business plan. Financed by increased LFA payments.

Scenario 4: if he decides to farm further the farm has the opportunity to gain a structural support for young farmers, but to fulfil the conditions the farm should go through many changes. Transfer the ownership to the son to increase his motivation and fulfil the conditions for gaining a support for young farmers (use Advisory Office services). Transfer the knowledge of baking home-bread and supply the nearest hosting businesses.

5 MODEL FOR THE FUTURE SUSTAINABLE DEVELOPMENT OF THE FARMS

In this chapter the holders' attitudes towards mission, vision and strategic goals are presented. The portfolio of diversified activities of the farms is reviewed. This chapter includes simple benchmarking to identify best practices among the compared farms. The concluding part of this chapter lists operations and marketing strategies that the farms should use to survive in the EU agricultural market.

5.1 MISSION, VISION AND STRATEGIC GOALS FOR THE FARMS

Mission, vision and strategic goals are the basic elements of the strategic planning process. I think they are closely influenced by the personal planning ability, and the gained expertise and managerial knowledge. The first step of the strategic planning process is to set a vision. The farm's owner makes decisions about what he wants the farm to be in the future. A vision statement is a written expression of the desired future for the farm. Unlike the mission statement, which deals with what the firm is about and why, the vision statement indicates where the farm would like to be in the future. The vision for the farm provides a basis for establishing the future directions for the farm. If vision is expressed in a written statement, this increases the clarity of the strategic plans and the commitment to them (Hunger et al., 1993, p. 165). Since the vision is the owner's image of his farm in the future, it is also the driving force for the farm's continuous development.

Secondly, it is useful to write a mission statement during the strategic planning process. The mission statement personalises the business by outlining "who we are, what we do, and where we are headed." The mission describes the farm's purpose (Hunger et al., 1993, p. 165). However the mission determines the farm's current position, its farming activities and the owner's vision.

If the vision and mission statement are in a written form they help the owner and the management team to identify with this statement and to communicate it to others outside of the management team, including employees, creditors, land owners, suppliers and buyers (Hunger et al., 1993, p. 165). The written statements increase the transparency, especially if they are clearly communicated to employees. Even though the strategic planning process is time demanding it is a basis for the farm's continuous development.

None of the observed farms have written mission, vision statements or strategic goals, despite the fact that they would be useful tools for planning and further development. This shows lack of managerial knowledge of the owners and their reliance on practical experience, usually not thinking about their future. All of their strategic views are only in their heads and if they are not properly communicated to the family members, this can lead to a lack of unity in reaching the same strategic goals. This then results in the incapability of the holder to plan strategically and to

retain the continuous development of the farm. This is already strongly present on the Zidanšek farm, because the family members just work from day to day without any planning, and especially with no long-term goals. On the other hand, the Fink, Kotnik and Brumec farms have the stronger strategic views in the region and that is clearly seen in the development level of these farms.

5.2 DIVERSIFICATION OF ACTIVITIES

In the past, farming was limited to the production of agricultural commodities. Market changes are opening up new opportunities for revenue diversification, higher profitability and leading to new job opportunities in finalising, on-farm processing and marketing of agricultural commodities. This opens up numerous business opportunities for supplementary activities leading to higher farm household incomes. Such an example are the service support units that are targeting the problem of limited production of the individual farms in a certain region to enable the farms to market the products of the whole region (larger quantities). The concept of service units supports a common infrastructure for development and marketing of the products produced in the region. Therefore these activities (organising workshops, developing common brands, organising the common marketing and advisory services) improve the development, know-how and marketing needed on the regional level. In parallel the service units lead to new employment opportunities in the region, that are supported through rural development programmes.

There are many examples of successful entrepreneurship in the rural communities. The farms are supplemented with tourism, sports, recreation, retailing, wholesales, industrial applications (machinery, craft), services (consulting), processing (meat products, dairy products, wooden products, etc). Promotion of rural entrepreneurship consequently results in less intensive farming activity (Glas, 2000, p. 120). However the present problems on the family farms in Suhadol can be an opportunity for further development of this geographical area. Since the observed farms have limited production and the majority of them face marketing problems, that might lead to the setting up a new regional service unit, if the farmers want to take advantage of the economy of scale through co-operation.

The main characteristics of Suhadol are wine-production and livestock breeding, since all the evaluated farms are involved in those two farming activities. Both wine-production and livestock breeding are traditional types of farming in this region. Across the compared farms the Arih farm, which is the smallest farm according to UAA criteria, has the highest number of different farming activities. This family is involved in six different activities: wine-making, livestock breeding (both cattle and pigs), milk production, salami sausage production and firewood production. This farm is involved in firewood production although the holder does not use his own wood. The holder of the Arih farm stated that the diversification results in higher income per produced unit. The Zidanšek farm, that is the second smallest farm across the observed group, is not involved in any supplementary activity.

Three farms (Fink, Podkubovšek, Zidanšek farm) do not have any supplementary activity. For two of them currently that is not a problem, because the farms are specialised in dairy and wine production. However diversification might be an opportunity in the future if the area of their specialisation is not going to be profitable. The Fink farm has capacity (main house) to build up tourism or craft (sewing). The Zidanšek farm is not specialised therefore the lack of diversification is already a problem, while it is a smaller farm compared to the other two farms and it does not produce enough wine to ensure the monthly income.

The primary farming activities of the compared farms are actually a traditional type of farming in this geographical region. All the supplementary activities are new activities supported by the primary activities (salami sausages) and are moving in the direction towards rural entrepreneurship (tourism). But if we compare the successful examples of rural entrepreneurship already described above, we can see that the farms still have numerous opportunities to develop additional supplementary activities.

Table 8: Diversification of activities of the compared farms

	PRIMARY ACTIVITIES					SUPPLEMENTARY ACTIVITIES		
	Wine	Cattle	Pigs	Firewood	Milk	Tourism	Pear-schnapps	Salami sausages
Kotnik farm	XXX	X	X			XXX		
Brumec farm	XXX	X		X			XXX	
Fink farm	X	XX			XXX			
Arih farm	XXX	XX	X	X	XXX			XX
Podkubovšek farm	XXX	X	X					
Zidanšek farm	XXX	XX	X	X				

Source: Questionnaire Analysis.

Comment: Number of X illustrates the importance of the activity.

As shown in table 8 there are only three different supplementary activities in the region. One farm introduced tourism as the only farm offering this service in this geographical region. The second farm is involved in pear growing and pear-schnapps production as the only one in the area. The third farm started to produce salami sausages supplementary to all other activities. The importance of the farming activities varies across the holders. Even though all the holders stated that wine-production barely breaks even, they still consider it as the most important farming activity. On the basis of the income statement supplementary activities are more profitable than primary ones. The large differentiation among the introduced different supplementary activities might be an opportunity to market the products in partnership, because the farms could supply a pallet of different products from the region. The Advisory Office and Business Centres should encourage the farmers to set up rural development initiatives. Both bodies should cooperate and not support only individual farmers, but the farming of all farmers towards enhanced rural development. Business centres already promote rural entrepreneurship, but only on the basis of the initiatives of the residents of local communities. The analysis clearly shows that there is a lack of initiative among the holders in Suhadol. In general, the population in less favourable areas is pessimistic and lacking activity because of their long-term lag behind the development

of other parts of society and due to their poor access to information. In these rural areas the entrepreneurship ideas are not generated in an intuitive way, therefore entrepreneurship, informatisation and personal initiatives should be supported. As it can be seen from the comparison of the farms there have not been a lot of new entrepreneurial initiatives introduced with supplementary activities. The lack of cooperation in Suhadol particularly inhibits the farmers in making a decision to press for the opening of a service unit that would lead them to overcome the problems of economies of scale, marketing problems, market access problems and managerial problems. Therefore farmers in Suhadol crucially need appropriate support services of Business Centres to encourage rural development in a form of sustainable development of the region.

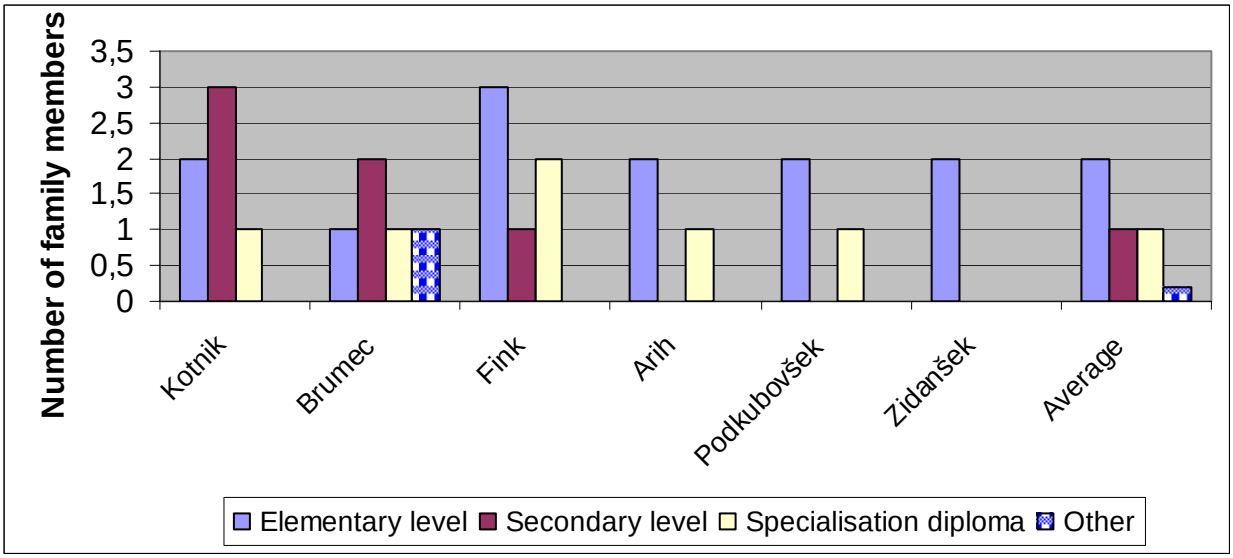
5.3 RESOURCES AVAILABLE AND RESOURCES NEEDED: LAND, WORK FORCE, CAPITAL, KNOW-HOW

In this part of the thesis I am going to use simple benchmarking as a method of identifying the weakest function of the Zidanšek family farm that needs improvements. Then I am going to benchmark the marketing function of all the farms on the wine and livestock market, where the Zidanšek farm is involved. Since the purchasing function largely impacts the farm household income, this function is also benchmarked. On the basis of the results of the benchmarking I am going to propose future directions for the Zidanšek farm. Benchmarking is defined as a process that helps companies improve their business process (Altany, 1990, p. 14). It is a process of measuring your operations against similar operations of the competitors for the purpose of improving your business process. The purpose of benchmarking is to improve products and processes to better meet customer needs. The linkage of the business process to customer needs is critical to effective benchmarking (Spendolini, 1992, p. 1). Since the family farms from the same geographical area (Suhadol) are included in the comparison I will use "best practice" benchmarking. This type of benchmarking identifies the best-in-class with the aim to identify its "secrets to success" (Altany, 1990, p. 14). After identifying the weakest function of the Zidanšek family farm, I am going to identify the family farm which is the best in this function among the assessed farms and try to find out its "secrets to success".

The experts on benchmarking claim that most companies benchmark their strongest function against the best competitor, but it is much more beneficial to make major improvements in your weakest functions rather than making smaller improvements in the areas in which you are already strong (Altany, 1990, p. 14). It is obvious that the compared family farms in Suhadol are comparing themselves with the others (competing) instead of controlling their own operations. Even though the farmers know that their competitors are better, they do not know why they are better. Even for large companies it is not enough only to identify the competitors, but it is necessarily to find out why they are better (Altany, 1990, p. 14). To find out why you are better is important, especially for small family farms where small changes can lead to huge improvements.

The analysis of the acquired data of the assessed family farms clearly identifies educational and professional knowledge as the major weakness of the Zidanšek farm. This weakness is the root cause of poor resource management, resulting in low-income level.

Figure 52: Educational structure of labour force on assessed family farms



Source: Questionnaire Analysis.

As it can be seen in figure 52 the elementary level of education predominates among the assessed farms. On every farm at least one family member achieved only elementary school education. Bigger family farms (Kotnik, Brumec and Fink) already have at least one family member holding a secondary diploma. All the assessed farms except the Zidanšek farm have at least one family member with a specialist diploma or specialisation courses[15] in the area of their specialisation/supplementary activity. Only in the Brumec family are all the educational levels represented. Even though the Fink family has the highest share of family members with elementary school only, they achieve the best income per family member among the assessed farms because they are the strongest in professional knowledge and the holder has the highest level of practical experience compared to the others.

Regarding familiarity of the farm, available professional knowledge (both expert and managerial) and know-how the Fink farm is the leading one. The farm successfully implements the available knowledge and this is its competitive advantage that creates value for the farm. Successful implementation consequently leads to promotion of innovative ideas and a high level of automation (machinery and other equipment). Even though the holder is 72 years old with elementary education he sees his farm as an economic unit, where the family members create economic value. The holder gained the professional knowledge through active participation in specialised courses organised by different small business associations and Advisory Office. He is satisfied with the services of the the Advisory Office. Active participation in the Small Business Associations is an opportunity for the holder to remain informed about all the changes in the area of specialisation, to establish contacts with other competitors and to further build the knowledge.

[15] The courses organised by different specialised small-business associtaions such as i.e. the wine-making association, fruit-growing association.

The holder is highly informed and he is following the media within his field of specialisation. Since the holder has elementary school only, it is clearly evident that the knowledge in the area of specialisation and the managerial knowledge are the most important to be successful. The holder of the Fink farm feels that family members like to work on their farm because they have assured income. He rewards his family members and he said that rewards bring better working morale and improve the relationships among the family members. This farm is the only one that replaced wine production, because as the holder states, the wine production was not profitable and demand for wine had decreased (the customers have build their own vineyards or shifted to other non-alcoholic beverages). In summary, the "secrets to success" within the educational and professional knowledge of the Fink family farm are: the level of specialised knowledge, the know-how, innovativeness, information competence, active cooperation with the Advisory Office and associations, success in human resources management (communicative, flexible, open, rewarding).

The "secrets of success" of the Fink farm With regard to educational and professional knowledge could support the training of an active labour force on the Zidanšek farm:

- promoting merger or cooperation to gain benefits on merger;
- raising specialised knowledge and expertise to a high level to improve the farm's future operations (needed training, participation in associations, cooperation with Business Centers and the Advisory Office) therefore promoting expert competence of the labour force;
- encouraging new initiatives and innovativeness;
- promoting of expert competence of the labour force.

Needed training should be financed by increased LFA payments.

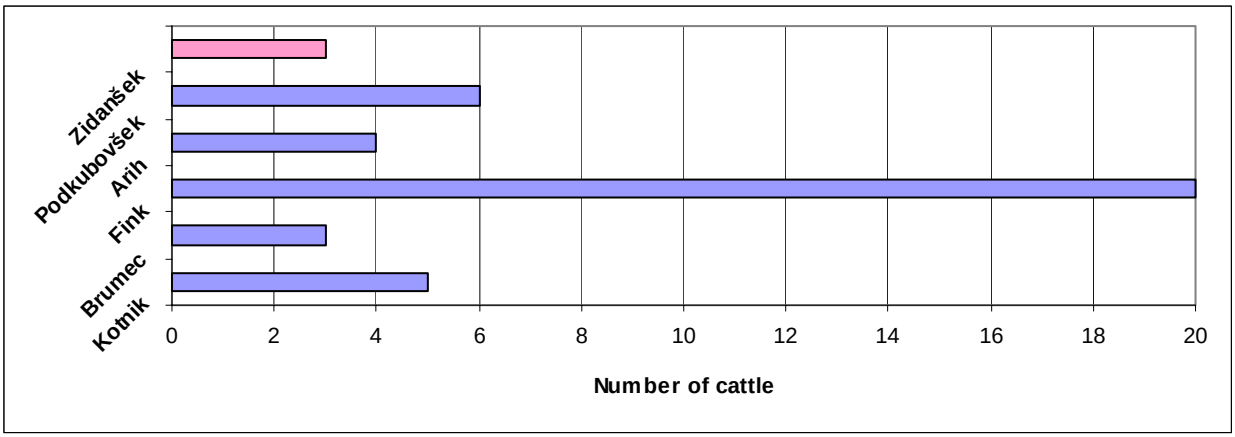
Since the educational and professional knowledge (both expert and managerial knowledge) is integrated in all operations of the farms, all the available resources are better used if the farm has a high level of know-how. As already mentioned, benchmarking is a tool for improving products and processes with the goal of better meeting the customer needs. When the Zidanšek farm implements the acquired knowledge, the processes and products will improve because it will address the weakest aspects of the farm: the specialised knowledge and poor expertise competence. It is clearly visible from the following analysis that the Zidanšek farm lags behind all other observed farms in the region.

Market analysis of the farms in Suhadol has shown that all the farms are weak in marketing function. Therefore the sales market of the products dominating in the region (wine, livestock) follows next. In this function the Zidanšek farm is not an exception, but it still lags behind the neighbouring farms. Across the compared farms the Fink farm has the highest responsiveness to the market needs and that results in higher income. Across the wine-production farms the most responsive to the customer needs is the Kotnik farm, which lists the excess demand for wine. Why is this farm the best one in Suhadol, considering wine market only? Firstly, it is the only farm producing brand wines in Suhadol. Secondly, it produces the highest quantities and the best quality of wine that was twice given awards in wine contests. Only half of the vineyards are in the maturation stage of their lifecycle therefore the yields are lower. Wine production is also a supporting activity to the hosting business. The holder has the highest level of know-how in

methods for growing grapes and cultivating wines. The technology for making wine is appropriate and the production process is 50% automated. Although there is excess demand and higher prices and the highest quantities possible are produced, the holder states that wine production is not profitable. Benchmarking of this marketing function clearly shows that marketing responsiveness leads to a need for improving knowledge in the field of specialisation to better operations. Therefore, both the specialised and the managerial know-how are needed to follow the needs of the wine market. The Zidanšek farm has vineyards that are out of their maturity phase and consequently the quantities produced are limited. Machinery and equipment are old and the production process is only 20% automated. The farm produces only profitable wine that is produced in the traditional way. It achieves lower market price compared to the wine of the Kotnik farm and lower yields of wine (l/ha). There is a lack of know-how in methods of vineyard cultivation and wine cultivation. Due to poor wine cultivation methods, the quality of the wine is not at its best. Since the only resources available in wine-production are the land and general traditional production know-how, the needed investments are too high to be feasible. On the other hand, wine-production is not profitable locally, especially if limited quantities are produced and there is a lack of proper marketing. If the farm wants to stay in wine-production it would be useful to find an investor (i.e. another farm prepared to take over the management of the Zidanšek farm), who should guarantee employment of the currently active labour force. The investor should be already active in the wine sector and should have an established share in the wine market.

In the structure of the UAA usage, grasslands have the highest share in almost all the observed farms. Despite the fact that all the farms have resources available to breed tribal cattle, the Fink family is the only one breeding them. Its holder has made the decision to breed tribal cattle, because of the price advantages and quality control established that gives him the basis for reaching the highest quality. This clearly shows that both managerial and expert know-how are

Figure 53: Cattle sales of the family farm in 2003



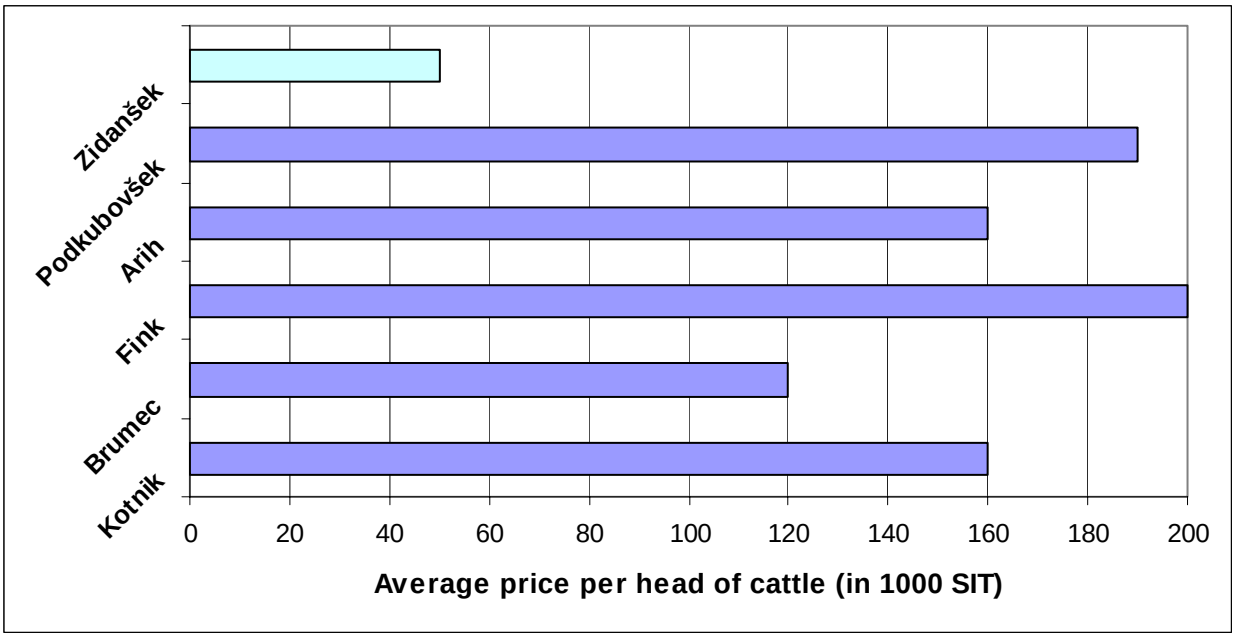
Source: Questionnaire Analysis.

needed in the business process of breeding and selling livestock. The Zidanšek farm currently stocks between intensive and extensive farming when considering the total number of livestock on the farm. Therefore it is not entitled to special payments for extensive livestock breeding. On

the other hand, the lack of a decision-making process, responsiveness to the market and expert know-how sets the Zidanšek farm in the weakest market position among the farms.

It would be advisable for the Zidanšek farm to merge with the Fink farm to introduce automation of cattle breeding and shift to production of tribal cattle. At least one of the family farm members should develop the expertise in the field of tribal cattle breeding. Managerial decisions should be made by the Fink farm. The available fodder resources enable the Zidanšek farm to breed at least five pieces of tribal cattle and that would not lead to lack of labour force.

Figure 54: Average price per head of cattle of the family farm in 2003 (in 1000 SIT)



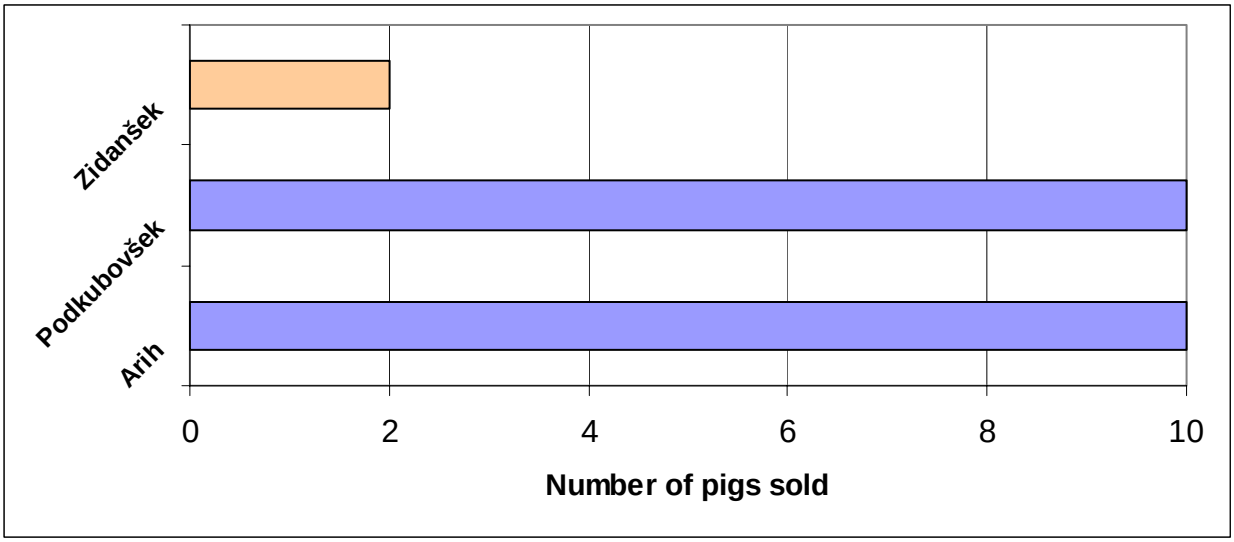
Source: Questionnaire Analysis.

Analysis of the average price of the cattle on the farms shows that the Zidanšek farm is lagging far behind all the others, reaching a price of no more than 50,000 SIT. Cattle prices on all other farms are set at least twice as high as the price set by the Zidanšek farm. The leading Fink farm is selling tribal cattle that has a price advantage on the market. The difference in price between the other farms is due to the weight and meat quality of the cattle sold. The cattle prices mirror the customers' needs. The quality standards are prescribed by the intermediary KGZ, but the Zidanšek farm did not respond to the market needs since the holder is not capable of identifying the market needs through the established quality and weight standards. To reach prescribed standards and weight expert knowledge is needed in the field of adapting the fodder patterns of the cattle to the standards. Marketing knowledge is important to realise the importance of the market demands. Membership of the cattle-breeding association would be useful for the active labour force on the Zidanšek farm to gain expertise knowledge. If the farms merge marketing function should be undertaken by the Fink farm. On the other hand the Zidanšek farm should use the free services of the Advisory Office to gain expert knowledge in this field.

Only half of the farms compete on the pig market. For the remaining farms, pig-breeding is either a supportive activity or they merely produce pork for household use. The Kotnik farm uses pork for preparing domestic food specialties and the Arih farm processes it into salami sausages.

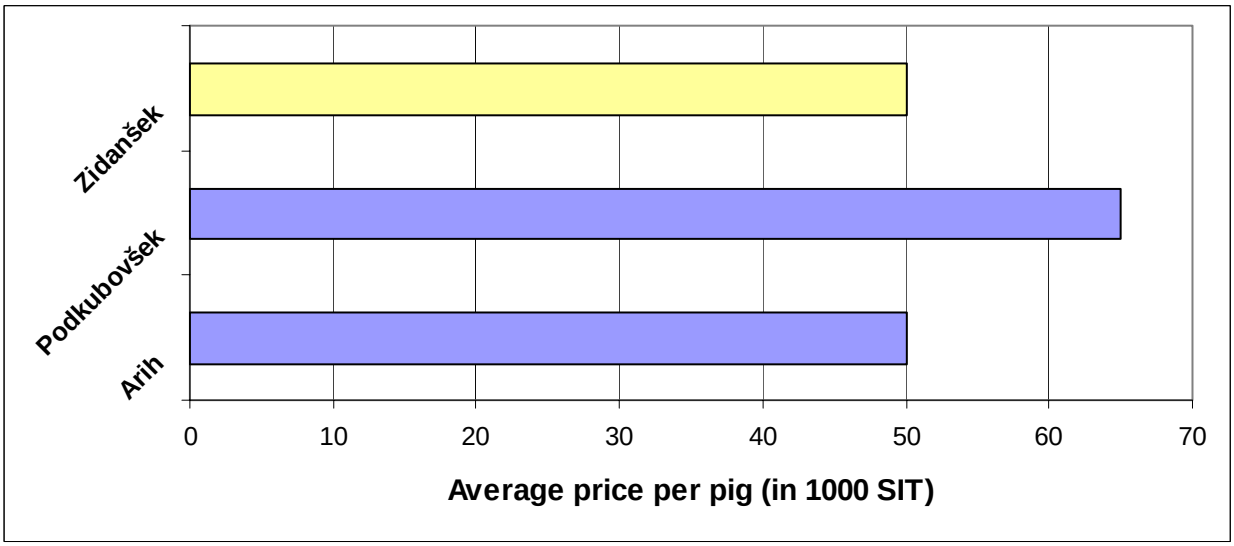
These two farms produce products of higher added value even though all the farms have available resources for processing pork into the products of higher added value. Moreover, the sales quantity on the pig market of the Zidanšek farm lags substantially behind the sales of other farms. Average market prices on the pig market do not differ widely. Average market prices on the pig market do not differ widely. The Podkubovšek farm has the best price. While pig breeding is labour intensive – mainly provided by the retired mother – and not processed into the higher value added products (i.e. salami), it is not economically feasible as a future activity.

Figure 55: Pig sales per family farm in 2003



Source: Questionnaire Analysis.

Figure 56: Average price per pig sold by the family farm in 2003 (in 1000 SIT)



Source: Questionnaire Analysis.

To optimise the production costs the holders should closely follow both the purchase and sales market (customer needs), since the input prices (expenses) largely affect the farm's household net income. Due to strong market competition there are opportunities for reducing input costs if the purchase market is followed closely. If benchmarking the purchase function the stronger among the farms is the Fink farm due to out of season purchases and large quantities purchased. The holder closely follows the purchase market and he stated that there are large price

differences, especially if purchasing large quantities. The Zidanšek farm is poorly organised in this function. The input market is not followed and the purchases are not organised and planned. Many purchases are made when the prices are at their seasonal peaks. Therefore the input costs are higher on the Zidanšek farm compared to the input costs of other comparable farms.

An additional burden is the is the reduced economy of scale of the small quantities purchased. Also in this function training and know-how is needed on the Zidanšek farm. The insurance, crop spray's and feed stuff costs should be reduced. The active labour should find a better insurance scheme at lower cost. The crop spray purchases should be planned and bought in partnership with a neighboing farmer. The feed stuff should be produced on the farm since they have available resources. It would be useful for the Zidanšek farm to enter into a partnership in the area of purchases with the Fink farm. If merging with the Fink farm the Zidanšek farm should introduce feed stuff production to supply with inputs the consolidate farm. Maize and grain are already produced on both farms. In additional the farm should purchase old bread from the local bakeries and mix all components for the feed stuff.

The following analysis gives a review of the available resources (land, human resources and financial resources). On size criteria, if we are taking into account both the UAA and forests, the majority of the assessed farms are medium-sized farms (5-20 hectares of UAA and forests).

Table 9: Available resources (land, human resources and financial) of the compared farms

	UAA and forests (ha)	UAA (ha)	Number of labour force	Market receipts (SIT)	Expenses (SIT)	Farm Income per labour force (SIT/month)	Deviation from the average net wage[16] in agriculture
Kotnik farm	46.0	24.0	5	21,800,000.00	8,716,335.00	218,061.00	93,959.00
Brumec farm	19.0	16.0	4	5,720,000.00	2,985,660.00	57,965.00	-66,137.00
Fink farm	37.5	30.5	4	17,525,000.00	3,935,355.00	283,118.00	159,016.00
Arih farm	9.5	7.5	2	3,689,000.00	1,200,890.00	103,671.00	-20,431.00
Podkubovšek farm	19.0	14.0	2	4,790,000.00	1,281,890.00	146,171.00	22,069.00
Zidanšek farm	18.3	10.5	2	1,005,000.00	832,180.00	7,200.00	-116,902.00

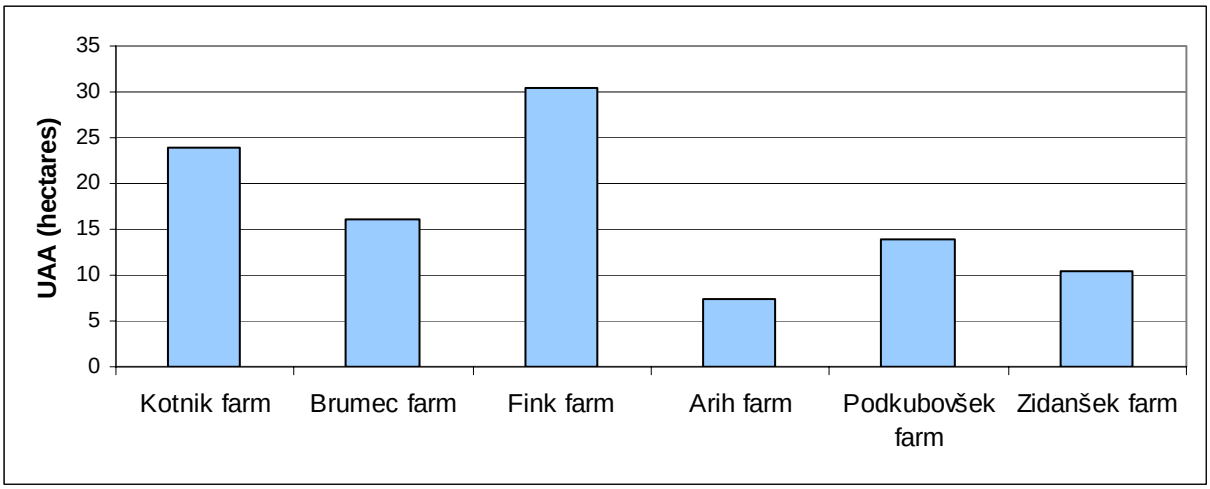
Source: Questionnaire Analysis.

The Kotnik and Zidanšek farms have a larger share of forest than the other observed farms. The share of forest is similar across those two farms. Therefore, they have the highest potential for selling firewood and wood, but on the contrary they do not sell any or only negligible quantities of firewood, so they are missing an opportunity. Since the Zidanšek farm has sufficient capacity for firewood production the family members should analyse the market needs. If there is demand for firewood, the family holder should plan to produce the quantity demanded (at least 20m^3 of firewood) to penetrate the potential market.

[16] According to the national statistics the average net income in agriculture in 2003 was 124,102.00 SIT (Statistični letopis, 2005).

If we compare the size of the UAA per family farm, the majority of the farms are medium-sized. The Fink farm, which is the leading farm on size criteria, produces the largest quantities of milk and therefore ensures stable monthly income and shows highest potential for investments. The Kotnik farm is the second largest farm and it transferred from dairy to cattle breeding, wine-making and introduced tourism as a supplementary activity. This enables the farm to sell redundant vegetables, fruit, wine and meat products. With its income it has available capital to invest. The Zidanšek farm is the second smallest farm of the observed farms therefore the use of intensive farming is questionable, because of the limited quantities produced, but this leads to an opportunity for extensive farming. In the long-term within the sustainable farming model the farm could introduce home made bread from a traditional receipt and supply the Kotnik farm for its hosting business. The mother should transfer the knowledge of baking bread to the active labour force in the near future.

Figure 57: Comparison of Utilized Agriculture Area (UAA) per family farm

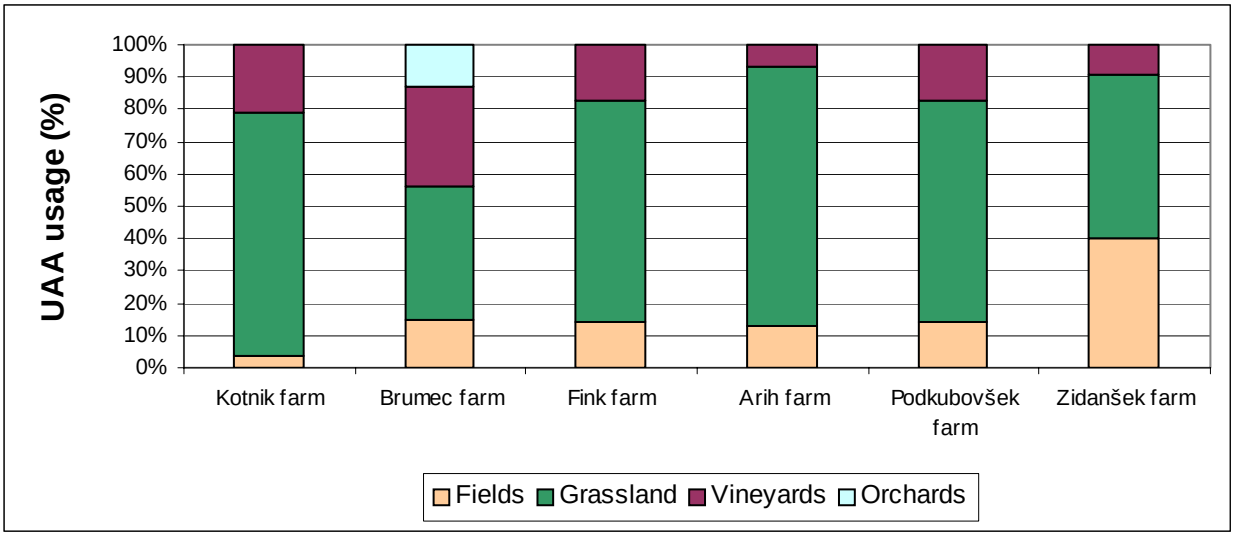


Source: Questionnaire Analysis.

Compared to the neighbouring farms the Zidanšek farm deviates largely regarding the share of the fields in its UAA usage structure. It uses 40% of the UAA for fields, which is the highest share across the assessed farms showing that the farm is still a traditional mixed crop and livestock farm. All the other farms have only up to 15% of the UAA in field usage. All the farms have their highest share in grasslands. Although the Zidanšek farm is known as a cattle-breeding and wine making farm, its share of grassland is among the smallest and is comparable only with the Brumec farm, which is actually specialised in wine and fruit processing. The current UAA structure is appropriate for extensive farming.

Vineyards are strongly represented in the UAA of the Brumec and Kotnik farms. Only the Brumec farm has intensive orchards and therefore it has a totally different UAA usage structure compared with the others. The location and land structure is appropriate for grassland, vineyards and orchard cultivation, but the main activities (wine making and livestock breeding) are not diverse; therefore five of the farms compete among themselves on the wine market, the majority of them with limited quantities of wine. The Zidanšek family should think about potential new markets (i.e. home-made grape juices market).

Figure 58: Comparison of UAA usage per family farm (%)



Source: Questionnaire Analysis.

Two farms (the Podkubovšek and Zidanšek farm) are faced with abundant UAA land (10% and 30% respectively), because of active labour force and time limitations. The Zidanšek farm should use the redundant land for extensive farming and fruit growing.

All the farms wish to stay involved in the current agricultural activity. The farm holders of the Brumec farm stated they are interested in introducing additional supplementary activities. The holders lack the risk management knowledge, initiative and the needed resources for introducing new supplementary activity and therefore only half of the farms have already introduced supplementary activity. The active labour force on the Zidanšek farm should be informed about the different supplementary activities and their benefits. With improved operations and a shift to extensive farming the farm should consider the possibility of introducing at least one supplementary activity (i.e. salami sausage production, home-made and baked bread, vegetable balls, etc) that could be supplied to already established customers. The active labour on the Zidanšek farm should be informed about different supplementary activities (that are actually supporting activities within a sustainable farming model) and their benefits. Within a merger and sustainable model the farm should consider the possibilities for introducing at least one supportive activity (i.e feed stuff production, salami sausage production, home-made bread, grape juice, apple juice, vinegar, etc.) that could be supplied by the farm involved in tourism.

The best age structure is present on the Kotnik and Brumec farms whose average age of working farm family members are 35 and 29.5 years, respectively. Both farms also have successors. The most critical are the Podkubovšek and Zidanšek farms with the average age of the family members working on the farms being over 57 years (59.5 years and 57.5 years respectively). They do not have long-term successors. Therefore, these two farms are incapable of long-term investment planning. Therefore, these two farms are incapable of long-term investment planning as individual farms, which is not the case if the farms merge.

On all the farms there is a lack of management control, because all the holders claimed that the labour force is maximally used and that changes in the organisation of the operations would not

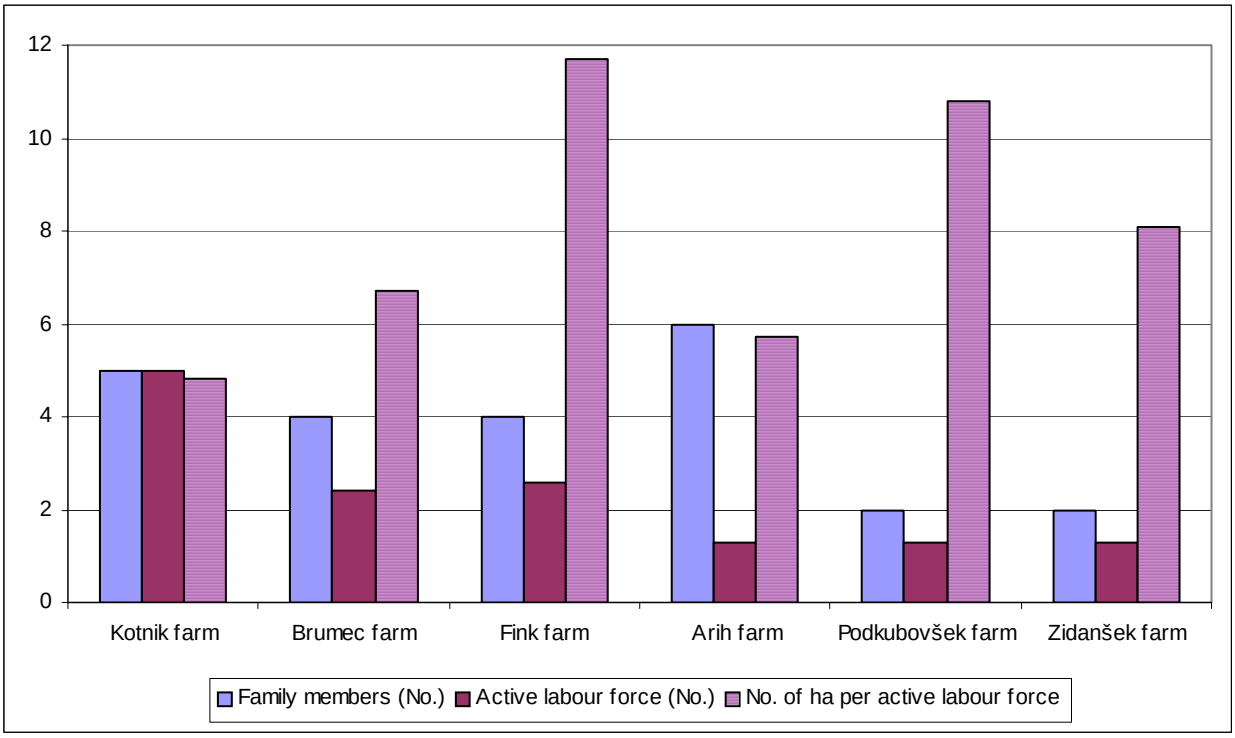
lead to better usage of the labour force and other resources. When consolidating with the Fink farm the Zidanšek farm should start recording work time and resources needed for all operations to properly organise the production processes. This can be a tool for identifying further process improvement. With respect to quality control, all of the farms practice internal quality control of wine and half of them participate in different competitions, where the wine is assessed externally. Both the cattle and milk are externally controlled by the intermediary and dairy inspection respectively. The hosting business is externally assessed through inspection and has already been given awards by the Association of hosting businesses. The rest of the products are controlled only internally.

The unused infrastructure on the farms resulted from the activity shifts. The share of redundant infrastructure varies among the farms and accounts for up to 30%. The machinery is optimally used only during the high season. Two of the farms are using the machines in a more optimal way compared to the others. Due to the location of the farms in the LFAs some of the machinery is adapted for mountainous and hilly areas. Due to land fragmentation, location and the small size of the farms the machines on the farms are too numerous. Each of the farms owns at least two tractors and all of them own forestry equipment. Only one farm uses the machinery and equipment also out of the main season. The old equipment should be sold off along with one of the tractors. All the machinery and equipment that will be further used in the farming on the Zidanšek farm should be upgraded to satisfy the safety standards. If the Zidanšek farm decides to purchase a new tractor, it should purchase one for steep land use. The merged farms should decide to invest in equipment and machinery adapted for LFA areas. Advisory support from the Advisory Office and Business Centres will be necessary.

The majority of the current holders were raised on the farms so they have first-hand farming training. The majority of past owners transferred their knowledge of farming and production methods to their successors – the current holders, but the production methods are changing continuously. Half of the holders are actively involved in different pertinent small-business associations (cattle-breeding, wine-making, machinery association, tourism association, association of the active farming women, association of young farmers). They also attend trainings and demonstration trips to other successful farms in the EU and that helps them to improve the current production methods and give them new ideas that are adapted and incorporated in their fields of farming activities. Some of the holders do not participate in the trips because the costs are excessive. The associations also organise evaluation of the products and they reward the best ones, so they serve as an external quality-control and marketing tool. Membership in a certain association offers an opportunity to have contacts with producers of the same product and therefore it serves as a forum where information about certain farming activities is exchanged. The majority of the holders use the advisory support of the Advisory Office and they cooperate with it successfully. They participate in seminars and training organised by the Advisory Office. Due to lack of time and labour force, current active family members of two farms only occasionally take part in training sessions and trips. This reduces access to important information about current practices in a certain farming activity and thus the farm's development is obstructed. The active labour force on the Zidanšek farm should actively participate in associations during the training associated with the merger and his expertise

knowledge. At a later stage the information gained in associations will be communicated by the Fink farm's representative.

Figure 59: Comparison of number of family members and active labour force per family farm

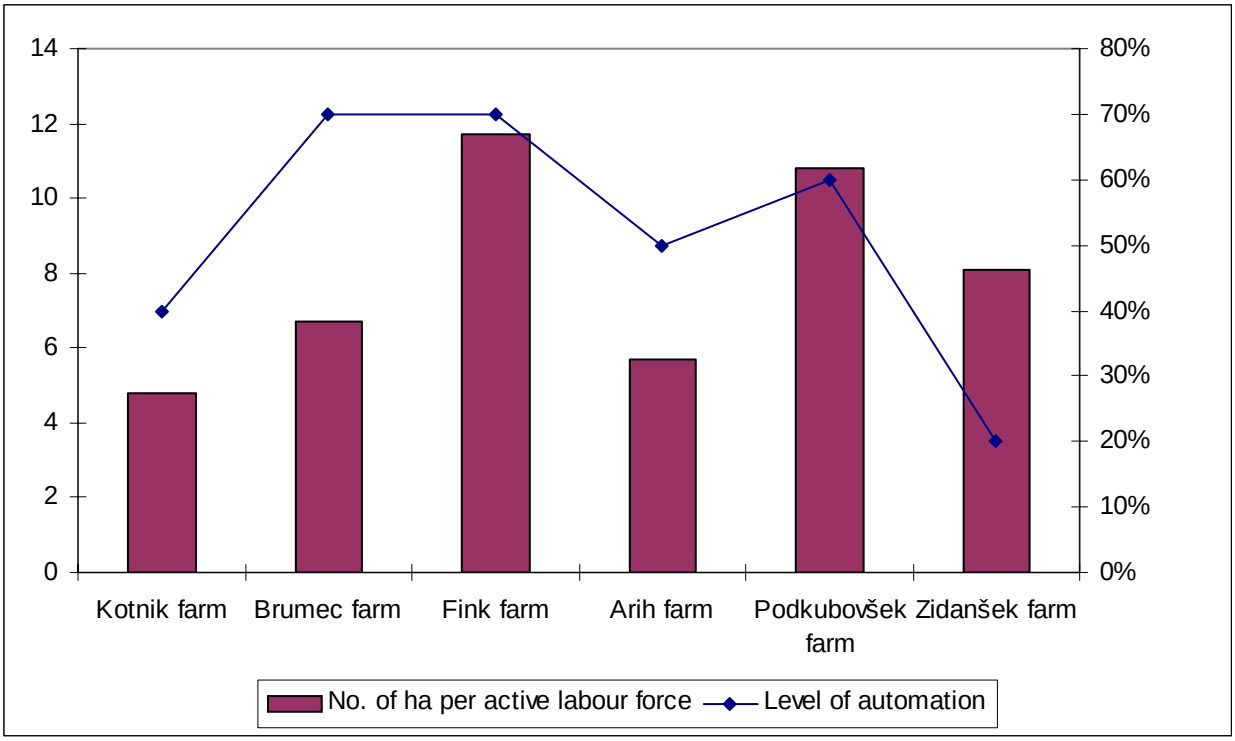


Source: Questionnaire Analysis.

The Kotnik farm is an exception in that all of the family members living on the farm are working there full-time. The other farms have family members who are still studying or who are retired. Although the strongest deviation between the number of family members and the active labour force working full-time on the farm is listed on the Arih farm, this is not problematic, since the rest of the family members have full-time jobs. Although the Fink farm has the highest number of hectares to cultivate per active labour force, it is not a problem because it has the highest level of automation and mainly grassland in the UAA structure that is cultivated mechanically. The most problematic are the Podkubovšek and Zidanšek farms which have almost the largest share of hectares for cultivation per active labour unit. But the Podkubovšek farm nonetheless has a 3-times higher level of automation compared to the Zidanšek farm in both cultivation of vineyards and grassland (figure 60). Due to labour force limitations the Zidanšek farm should consider the automation of certain operations such as manure cleaning, cultivating mechanically, etc.

None of the farms meet the conditions for application for the government tender for structural support. Four of the holders stated there is a lack of capital for further investment. If the observed farms functioned as economic entities, on their farming income only, half of them would not be able to pay the average net wages of the labour. Financially, they are totally dependent on different supports (direct payments, LFA payments, social transfers, pensions). The majority of the farms has already had experience with financial institutions and instruments (loans).

Figure 60: Comparison of the level of automation per family farm (%)



Source: Questionnaire Analysis.

The Zidanšek farm has no experience in taking loans. It therefore should use the counselling services provided by the Business Centres offering more favourable loans to farmers. The farm should try to meet at least the conditions for eligibility for direct transfers. Before the farms consolidate the farmers should consider the financial support offered within rural development programmes and find out if there are any pilot projects for the introduction of a long-term sustainable farming model.

5.4 SWOT ANALYSIS OF THE OBSERVED FARMS

Based on this analysis, SWOT analysis for all the observed farms was made to set the direction of further operations and marketing for the farms within the rural development of Suhadol.

Figure 61: SWOT analysis of the observed farms

STRENGTHS	WEAKNESSES
· **extensive livestock breeding & extensive crop production** (orchards and vineyards) · **environmentally friendly farming** enables production of healthy food · **relative closeness of larger urban markets** (Sl. Konjice, Celje & Maribor) - **open markets** · **closeness of the tourist centres** (Zreče, Olimje, Maribor) · growing interest of farmers in **specific, specialised knowledge & computer equipment** · **closeness to the monastery Žička kartuzija and to the oldest restaurant in Europe** · **high share of forests** for firewood · **advisory office and services** are well developed · **located along the so called "vinery road"** that was introduced to promote the farms to walking groups · **road infrastructure** is well developed · **nice and peaceful countryside**	· **low educational level (expert knowledge) & low managerial knowledge** (especially human resources management, controlling, leading, organising) · **low level of finalisation of end products** for the market · **no brand names** on the farms · **poor marketing skills** (farmers do not know the market, customers, market needs, problems with identification of products demanded on the local market) burdens the successful sales · **unsuccessful marketing** and presenting farms products to potential customers · **lack of partnership among the farms and lack of initiatives for rural entrepreneurship** · **low productivity** due to the small size (average farm size ha) and fragmentation. · **unfavourable ownership structure** · **unfavourable age structure** (older generation holders dominate; on only half of the farms the active labour is below 35 years of age) negatively influences the farms development levels · low levels of accumulation results in **investment incapability** · farms are equipped with redundant machinery and equipment, that are actually **obsolete technology**

OPPORTUNITIES	THREATS
· **organic food** is a potential market niche because of the market demand for healthier food · **firewood market** is a potential market, because of the high share of forests in the region · potential for supplementary activities such as **vegetable and flower growing** · **setting up a service support unit** (common development of agricultural products, training and marketing); within this service establish the common brand · penetrating the **tourist centres, hotels and monastery** with the products of the region; opportunities for cooperation with tourism – preparing of certain agricultural products for the needs of tourist consumption (catering) · **favourable natural conditions for wine-production and fruit production** therefore there is a potential to further develop this farming activity on the farms that are already vital · **potential to participate in different farmers associations** (to follow the new technology, production methods and to gain new know-how); in the region there are more than 50 different associations · **see the cooperatives as development and cooperation initiators** · **cooperation of the farmers involved in the development of supplementary activities** (between regions and at the national level) regional brand names	· **information, training and capital accessibility** · **inappropriate functioning of the cooperatives,** that do not represent the farmers' interests · **regulative and policy support for supplementary activities is not encouraging** · **cooperation and harmonisation of the rural development programme holders (Advisory Office, Business Centres, associations)** · **competitive pressure** from EU farmers and agricultural products · requirements for **higher EU standards** · **low competitiveness of food processing industry** compared to the EU food processing industry · food processing industry might not give guarantees to buy domestic agricultural commodities

Source: Questionnaire Analysis.

5.5 OPERATIONS AND MARKETING FOR THE FARMS IN THE FUTURE

The current agricultural policy, the liberalisation of the agricultural market and the competition on the internal EU market will largely influence the current operations on the observed farms. In the long-term, only those farms that are vital enough to compete in the market will survive. The current policy enables only the economically strongest farms with a guaranteed successor to survive and develop into healthy economic entities. The long-term future of all assessed farms in Suhadol is thus questionable in the sense of individual profitable farming. This is directly connected to the rural development concerns raised by the agricultural policy. I expect, based on results of analysis, that the weakest farms in Suhadol (Podkubovšek and Zidanšek farm) will not survive in the short-term, due to the small quantities produced and other limitations identified. On the other hand, economically still vital farms in this village will not survive in the long-term, because of the the limited quantities produced that burden them in their ability to supply larger shopping centres with a constant demand (i.e. shopping centres like Mercator). Therefore, if the region wants to benefit, the farms should progressively merge into a centralised farm. Dependent on their development levels, some farms will need to merge earlier, especially farms without successors, others later.

Lack of trust and cooperation among the farms is visible, which stems from a lack of cooperative competences of those responsible for the promotion of farming and rural development (Advisory office and Business Centres). Therefore Advisory office and Business Centres should develop a motivational strategy to support farms in an effort to merge and build a sustainable farming model. Through mergers and with the support of a regional service unit the farmers could introduce a sustainable farming model. This model would provide the specialisation of individual farms within a new consolidated farm (i.e. farms would represent smaller production units to support activities of other production units). For example if the Kotnik farm stays in the hosting business, other farms – in consolidated farm production units – would supply it with locally produced products (i.e. fruit yogurts, fresh fruit, dry fruit, juices, home made bread, vegetables). All the farmers should leave the production for home needs and buy the products demanded from the specialised units.

The rural development programmes provide an opportunity to initiate a regional service support unit. Yet the majority of farms are facing the limitations of the economies of scale and poor marketing. A service support unit would enable the farms to: (i) organise seminars and workshops in the needed fields of the specialisation, (ii) organise the development of products and technology, (iii) organise the common marketing and purchase function, (iv) form common brand names for their products. The setting up of a regional service support unit should result in the standardisation of product quality regionally. They should penetrate the market with a common brand name, and sell not only to established individual customers, but also to hotels, tourist centres, the local monastery, agri-food industry and shopping centres. The farms should be encouraged to initiate rural entrepreneurship, which is the role of the business centres. The holders of the Fink farm, Kotnik farm and Brumec farm, who won the title of the youngest holder of the year, should take on the initiative to set up a service support unit in Suhadol,

through which the farmers would produce enough to compete on the market. They could supply the markets with a pallet of different products produced in Suhadol under the same brand name. The farms would then gain better market conditions (economies of scale, stronger negotiating power, higher price, etc.).

The proposed service support unit should result in improved production processes of the farms by reaching the regionally established quality standards and raising the productivity continuously. The key factors of productivity improvement are: (i) proper top management; (ii) proper technology; (iii) worker involvement; and (iv) availability of machinery, equipment and tools. All the farms in the region have potential for improvement of all productivity factors, but they need to introduce the proper control of the production processes to identify the deviances among the farms with the aim to raise the total productivity of the region. For the future development of the region the successful common marketing and increasing productivity are important, because they are both leading to optimal use of the available resources. In the operational part of the service support unit and the organisation of the regional production, the farmers should be trained in special specialised workshops, especially in the fields where they lack the necessary knowledge (managerial, operational and marketing knowledge). Setting up a service support unit should be financed through programmes promoting rural entrepreneurship. The concept of a service unit should be open to other interested farms in the region. Both concepts should be of interest to the local community and rural development initiatives since they promote rural development and new employment opportunities.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

The farm structure analysis for Slovenia and SWOT analysis of the observed farms clearly show the *deferment in structural changes* in agriculture, which is specifically visible on the LFA farms that are lagging even behind the average. Due to location and fragmentation of the farms the labour productivity is even below the national average. The LFA farms are faced with higher levels of immobility of production factors and higher production costs. The reason for this situation lies in low opportunity labour, costs and in fixed capital immobility (specific and not transferable investments), especially on the observed farms where the machinery and equipment must be adapted to location. Contributing to the negative allocation of factors are also the values among the farmers, ethics and farmers' thinking pattern (maintaining the farm no matter what the cost; "psychological income" connected to the inheritance of the land). A certain share of the labour on the farms does not have alternative employment chances or does not feel inclined to look further. Observed farms that are not vital will need to intensify the production (possible mergers) or leave production, which can happen at the generational transfer of ownership. To ensure the optimal size of farms in the context of maximal reduction of costs and to consequently ensure adequate farm household income, the farms should merge. The number of Slovenian farms exceeded by 60% the number of Austrian farms already in 1994 (Erjavec, 1995, p. 149). This clearly shows the long –term deferment of structural changes in Slovenia. On the other hand Slovenian farms are lagging, in productivity and competitiveness, far behind EU-15 farms. Even with the increased government support (which will support only vital farms), in the long term these farms will not be able to survive as individual farms due to limited natural resources and high capital immobility (i.e. not productive enough) – as claimed by the first hypothesis.

Merging would enable the farmers to increase quantities produced and reduce the costs. Farm mergers create the potential to develop a new brand name, stronger marketing strategies and enter into catering for tourism entities. I see the potential in developing a strong sustainable farming model through progressive mergers, where all opportunities and strengths of individual farms could be used. In the process of consolidationg, the know-how on restructuring will be useful (i.e. the Fink and Kotnik farms went through restructuring). The potential of the region is to specialise in three main activities: the hosting business, wine and milk production. All other activities should be supporting activities, in the short-term. Excess production could be marketed through a service unit to tourism facilities. I would propose the setting up of a pilot project for a sustainable farming model. Since they are limited by economies of scale and there is a promising organic market the farms should consider about specialisation in organic farming. Together the farms should tender for structural support, which will partly cover the restructuring costs. They should also tender for rural development programmes to gain support for setting up a marketing unit.

The hypothesis that the farms' opportunities rest with the diversified activities and supplementary sources of revenue might be true only if the farms that are not highly specialised, have enough labour force available and supply individual local customers.

The hypothesis that direct payments will be an important factor in the farms' survival is true. The analysis of the financial factors has shown that if the majority of farms paid the average wage to their active labour, they would not be able to invest. The direct payments, as far as they exist already represent 30% of the total household farming income, and additional social transfers will also be important for the survival of the farms and for further investments. The hypothesis that the farms with potential for successful restructuring have a feasible future in agriculture is true. Only if the local community strongly supports the restructuring process and supports the rural development initiative, could the LFA farms survive and develop new marketing channels.

6.2 RECOMMENDATIONS

At the **governmental level** cooperation between the ministries of Agriculture, Forestry and Food and for Rural Development should be enhanced. Transparency in the regulative framework would be recommendable. The CAP policy has been introduced relatively successfully. All ministries should set up a regulatory framework for cooperation between the responsible bodies for farming development and rural entrepreneurship development (Advisory offices and Business Centres) to enhance the rural development process. The Ministry of Agriculture, Forestry and Food should set a better regulatory framework and procedures for geographical indications for widely supporting them. The Ministry for Labour, Family and Social Affairs should set up a framework to encourage young families to live in LFA areas. In Slovenia government support was not aimed at farms' economic goals, but rather to solve social problems. Therefore the structural changes will result in many social problems (alcohol addiction, criminality, unemployment). However the structural changes should be supported by several social programmes (i.e. treatment of addicted farmers).

Advisory Offices should not only support specific farming competencies on the farms, but also incorporate rural development policies in their counselling. This would shift the farms that are not competitive enough towards rural development programmes. General and specialised training for the farmers should be obligatory (it should be conditional on the entitlement to 20% of direct transfers). The number of counsellors is too limited and they are burdened with paper work. They should increase the frequency of their presence on the farms.

Local communities should be supportive of rural development programmes with promotion activities. To encourage the cooperation among farmers they should develop and implement a motivation strategy. They could set up a proper framework for the marketing of regional brands in the biggest local shopping centres (a certain share of their sales should include regional brands and should be conditional on their operation in the local community) and in tourist facilities. They should promote locally-produced agricultural commodities to supply the local customers with local food. Such marketing would lead to stronger customer recognition and awareness of

local and healthier food (i.e. lower content of crop spray used for storage, transportation). The community should organise special training for farmers in the field of brand marketing. Since the majority of the farmers in Suhadol do not use computers, they are not as informed as they could be. They cannot access the information of the Business Centres' web-site. The local community should organise computing courses for farmers, including basic skill development (internet and email use), and support them to use special softwares relevant for farmers.

Farmers should cooperate more among themselves regionally (at least in the weakest aspects of their business) to take advantage of the economies of scale. One of the possible options is to initiate a service support unit and to merge. They should identify appropriate information regarding the rural entrepreneurship programmes to tender for financial support for common services. They should be involved in managerial decisions in order to be able to adapt the farms to the regional demands. The farmers should be open and responsive to the market demand. The **younger generation** should take over the farms. The **older generation** should primarily transfer traditional knowledge and managerial knowledge (if it is available) to the younger generation. The traditional products might be a good basis for finalised regional products. The older generation should be supportive to new ideas coming from the younger ones.

Regional Business Centre should conduct a SWOT analysis to identify the strengths, weaknesses, threats and opportunities of the farms in Suhadol. It should do an analysis of potential markets and give guidelines for further rural development in the region. It should incorporate recommendations of the local community and Advisory Office. The farmers should order expert analyses of their products and publish them in order to facilitate brand marketing in Suhadol. Business Centre should promote regional programmes directly to the regional groups of farmers, especially to those that do not have internet access.

6.3 RESTRUCTURING PROGRAMME FOR ZIDANŠEK FAMILY FARM

The poor financial state of the Zidanšek farm and the weakest functions identified through benchmarking show that there is potential for further development for this farm only if it undergoes intensive restructuring. Since it really lags behind all the observed farms in all assessed indices and it does not have a successor in the long-term, I would propose that the owner merge with the neighbouring Fink farm, who has the most experience in restructuring and enough capital to invest. The Fink farm should intensively re-allocate the potential resources of the Zidanšek farm. The proposed merger is only a short-term solution within a long-term process of building a sustainable farming model in Suhadol, when all the farms should merge. A restructuring programme is proposed next.

Restructuring programme for the Zidanšek farm:

1. **Solve the addiction problem** (the owner should send an active labour force to therapy or treatment – financially supported by insurance)

2. **Merge with Fink farm**

3. **Intensive reallocation of the potential resources of the Zidanšek farm**

4. **Train an active labour force** in future activities (directly on the farm)

These steps should be decided by the owners of both farms:

5. **Decision-making of the consolidated farms regarding:**
   A. **Specialised, high-value-added activity** (stronger specialisation in intensive tribal cattle breeding – short-term; the Zidanšek farm might introduce the production of feed stuff as a supportive activity to the Fink farm and to local market - long-term)
   or
   B. **Portfolio of activities, that would lead in better use of available resources** (extensive tribal cattle breeding, extensive apple cultivating on the pastures – apple juice making to supply the Kotnik farm, home made bread to supply the Kotnik farm)

6. **Introduction of co-operation with other farms in Suhadol**:
   A. common marketing, cooperation in setting up brand names and cooperative farming activities with the neighbouring farms (if possible enter into the scheme of regional brand name)

7. Use the support of **counselling services** of the local Advisory Office (KSS) and regional Business Centre, when merging and within service support unit

8. **Tender for the structural support for merger** (structural changes)

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Appendix 1

List of abbreviations

AWU	Annual Work Unit
C-10	Ten New Accedding Countries
CAP	Common Agricultural Policy
CEEC's	Central and East European Countries
DG Agriculture	Directorate General for Agriculture
EAGGF	European Agriculture Guidance and Guarantee Fund
ESU	Economic Size Unit
EU	European Union
EU-15	Member States of European Union before the Accession of 1st May 2004
GDP	Gross Domestic Product
KGZ	Agriculture and Forests Association
LFA	Less Favoured Area
LSU	Livestock Unit
OECD	Organisation of Economic Co-operation and Development
SAPARD	Special Accession Programme for Agriculture and Rural Development
SFP	Single Farm Payment
SFPS	Single Farm Payment Scheme
SGM	Standard Gross Margin
SURS	Statistical Office of Republic of Slovenia
SWOT	Strength Weakness Opportunities Threats
UAA	Utilized Agricultural Area
WTO	World Trade Organisation

Appendix 2

Table A1: Key new elements of the extended rural development instruments

Rural element	New measures introduced	Supported EU schemes
Food quality measures	• Incentive payments available for farmers for voluntarily participation in EU or national schemes designed to improve the quality of agricultural products and production processes, and which give assurances to consumers on these issues	• Geographical indications and designations of origin for agricultural products and foodstuffs; • Certificates of specific character for agricultural products and foodstuffs; • Organic production of agricultural products; • Quality wine produced in specified regions.
	• Support for encouraging marketing activities (consumer information, promotion) of products produced under mentioned quality schemes	
Meeting standards	• Support on the adaption of the introduction of demanding EU standards, not included in national legislation	• Demanding EU environment, public, animal and plant health, animal welfare, occupational safety standards
	• Covering the costs of using farming advisory services to assess the performance of the farm business regarding the new	• New cross-compliance standards
Animal welfare	• Support for farmers maintaining high (voluntarily) standards of animal welfare	• Voluntarily standards for animal welfare

Source: EC (2003 b, p. 5).

Appendix 3

Table A2: Current and reformed CAP measures

	CAP (Agenda 2000)		Reformed CAP
Main measures			
	Aim	**Objective**	
Investments in farm businesses	• Improve farm incomes and the living standards and the working and production conditions of farmers, • i.e. modernise farm machinery and equipment	• Reduce production costs; • Improve product quality; • Preserve and improve the environment; • Meet hygiene and animal welfare conditions; • Encourage diversification in agricultural activities.	• No change.
Human resources: young farmers, early retirement, training	• Transfer of farm businesses from one generation to another by setting up measures for young farmers (under 40 years of age) • Encourage the early retirement.	• Improve the economic viability of the farm	• Increased setting-up aid for young farmers (farmer uses farm advisory services).
Less favoured areas (LFAs)	• Continued land management and the viability of rural communities in LFAs • Compensatory payments per hectare	• Improve the economic viability of the farms in LFAs	• Compensatory payment increased to maximum 250 EUR/ha.
Areas with environmental constraints	• Restrictions on agricultural use, due to EU environmental protection rules, • Compensatory payments for the additional costs and income losses linked to these constraints.	• Preserve agricultural activity in these areas.	• Higher aid levels in justified cases.
Agri-environment measures	• The only compulsory element of EU rural development policy (must be included in MS rural development plan)	• Support sustainable development.	• Co-financing increased for a maximum of 85% in Objective 1 regions and 60% in other areas.
Processing and marketing of agricultural products	• Adapting production to market developments, • Researching new commercial outlets, • Adding value to agricultural products, • Raise the competitiveness of the sector, • Improve the processing and marketing of agricultural products.	• Applying new technologies, • Improving and monotoring the quality, • Encouraging the development of new outlets for agricultural products, • Protecting the environment.	• No change.
Forestry	• Afforestation of agricultural and non-agricultural land, • Payments covering maintenance costs	• Sustainable development and development of the EU's forests	• Investment initiatives also for State-owned forests for ecological and social reasons.
Article 33 measures	• Set of measures among them diversification, agricultural water resource management and financial engineering	• Promoting the wider economic development of rural areas	• No change.

Source: EC (2003 b, p. 5).

Appendix 4

Figure A1: Market analysis of the Kotnik farm

(i) Market analysis of purchasing of the Kotnik farm

Purchasing categories	quantity	value (SIT)	%
- raw material for toursim (hosting, bottles)	-	4,000,000.00 SIT	46
- crop spray	-	2,000,000.00 SIT	23
- insurance	-	800,000.00 SIT	9
- electricity	-	570,000.00 SIT	6
- fuel	3,000 litres	490,335.00 SIT	6
- tax	-	500,000.00 SIT	6
- fertilizers	4 tonnes	256,000.00 SIT	3
- veterinary services	-	100,000.00 SIT	1
Total:		8,716,335.00 SIT	100

(ii) Sales market analysis of the Kotnik farm

Production	quantity	value (SIT)	%
- tourism (hosting)	1000 persons	15,000,000.00 SIT	69
- wine	20,000 litres	6,000,000.00 SIT	27
- livestock	5 head	800,000.00 SIT	4
Total:		21,800,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 5

Figure A2: Market analysis of the Brumec farm

(i) Market analysis of purchasing of the Brumec farm

Purchasing categories	quantity	value (SIT)	%
- insurance (buildings, machines, wineyards, orchards, personal insurance)	-	600,000.00 SIT	23
- crop spray	-	550,000.00 SIT	21
- machinery and equipment costs	-	408,770.00 SIT	16
- raw material (bottles, packaging)	3,000 pcs	300,000.00 SIT	12
- fuel	2,000 litres	326,890.00 SIT	12
- fertilizers	4 tonnes	256,000.00 SIT	9
- veterinary services	-	150,000.00 SIT	6
- electricity	-	15,000.00 SIT	1
Total:		2,606,660.00 SIT	100

(ii) Sales market analysis of the Brumec farm

Production	quantity	value (SIT)	%
- wine	8,000 litres	2,000,000.00 SIT	35
- bottled pear schnapps	1000 litres	2,000,000.00 SIT	35
- bottlled wine	1,500 bottles	1,200,000.00 SIT	21
- livestock	3 head	360,000.00 SIT	6
- wood	10 m^3	160,000.00 SIT	3
Total:		5,720,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 6

Figure A3: Market analysis of the Fink farm

(i) Market analysis of purchasing of the Fink farm

Purchasing categories	quantity	value (SIT)	%
- feed stuff	42 tonnes	2,400,000.00 SIT	61
- fuel	3,000 litres	490,355.00 SIT	13
- fertilizers	5 tonnes	320,000.00 SIT	8
- insurance	-	270,000.00 SIT	7
- veterinary services	-	250,000.00 SIT	6
- crop spray	-	160,000.00 SIT	4
- electricity	-	45,000.00 SIT	1
Total:		3,935,355.00 SIT	100

(ii) Sales market analysis of the Fink farm

Production	quantity	value (SIT)	%
- milk	182,500 litres	12,775,000.00 SIT	73
- tribal cattle	20 head	4,000,000.00 SIT	23
- wine	3000 litres	750,000.00 SIT	4
Total:		17,525,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 7

Figure A4: Market analysis of the Arih farm

(i) Market analysis of purchasing of the Arih farm

Purchasing categories	quantity	value (SIT)	%
- fuel	2,000 litres	326,890.00 SIT	27
- insurance	-	300,000.00 SIT	25
- fertilizers	3 tonnes	192,000.00 SIT	16
- crop spray	-	150,000.00 SIT	13
- raw material (wood)	18 m^3	117,000.00 SIT	10
- veterinary services	-	100,000.00 SIT	8
- electricity	-	15,000.00 SIT	1
Total:		1,200,890.00 SIT	100

(ii) Sales market analysis of the Arih farm

Production	quantity	value (SIT)	%
- milk	20,000 litres	1,340,000.00 SIT	36
- wine	3,000 litres	750,000.00 SIT	20
- cattle	4 head	640,000.00 SIT	18
- pigs	10 head	500,000.00 SIT	14
- firewood	18 m^3	234,000.00 SIT	6
- salami sausagess	150 pcs	225,000.00 SIT	6
Total:		3,689,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 8

Figure A5: Market analysis of the Podkubovšek farm

(i) Market analysis of purchasing of the Podkubovšek farm

Purchasing categories	quantity	value (SIT)	%
- crop spray	-	400,000.00 SIT	31
- fuel	2,000 litres	326,890.00 SIT	26
- fertilizers	5 tonnes	320,000.00 SIT	25
- insurance	-	120,000.00 SIT	9
- veterinary services	-	100,000.00 SIT	8
- electricity	-	15,000.00 SIT	1
Total:		1,281,890.00 SIT	100

(ii) Sales market analysis of the Podkubovšek farm

Production	quantity	value (SIT)	%
- wine	12,000 litres	3,000,000.00 SIT	63
- cattle	6 head	1,140,000.00 SIT	24
- pigs	10 head	650,000.00 SIT	13
Total:		4,790,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 9

Figure A6: Market analysis of the Zidanšek farm

(i) Market analysis of purchasing of the Zidanšek farm

Purchasing categories	quantity	value (SIT)	%
- insurance (personal insurance)	-	228,000.00 SIT	28
- crop spray	-	200,000.00 SIT	24
- fertilizers	2 tonnes	128,000.00 SIT	15
- fuel	720 litres	117,680.00 SIT	14
- feed stuff	1.5 tonnes	85,500.00 SIT	10
- veterinary services	-	66,000.00 SIT	8
- electricity	-	7,000.00 SIT	1
Total:		832,180.00 SIT	100

(ii) Sales market analysis of the Zidanšek farm

Production	quantity	value (SIT)	%
- wine	3,000 litres	750,000.00 SIT	75
- catlle	3 head	130,000.00 SIT	13
- pigs	2 head	100,000.00 SIT	10
- firewood	3 m^3	25,000.00 SIT	2
Total:		1,005,000.00 SIT	100

Source: Questionnaire Analysis.

Appendix 10

Figure A7: S.W.O.T. analysis of the Kotnik farm

INTERNAL FACTORS / EXTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
	•New machinery, new wine-making equipment, level of autimazation •Educated & specilized labour force high level of knowhow in cellering •Brand wines and home-cooked food •Good quality of products (rewards) • Secondary activity developed (hosting visitors)	• Hosting visitors are limited, while it is not located along the traffic road • Lack of labour force • Lack of co-operation of business initatives with neighbour farmers • Too high costs of wine production • Hosting visitors are mainly guests during the weekend
OPPORTUNITIES • Loans for renewal of vineyards • Higher demand on brand wines as supplied • Abundance of small neighbour farms • Higher demand on spending family weeends on countryside • The upper floor of the vinery is not used	**STRENGTHS-OPPORTUNITIES STRATEGIES** • New technologies should be followed • Partnership with some of the neighbour farms to gain additional land and increasing the grape production to the quantity demanded or purchase additional land (abundant farms) • Modernise the upper floor of vinery into family appartments	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • Partnership to introduce some additional labour force • Introducing cost control mechanism in the wine production (reducing costs) • Build the strategy on targeting during-the week visitors
THREATS • Higher competition on the EU wine market • Stricter law on wine substance in blood, while driving • Penalties for not registered activities • Conditions for gaining structural support not fulfilled	**STRENGTHS-THREATS STRATEGIES** • Enlarging wineyards to increase wine production • Introducing home-made juices instead of wine (mixed fruit), to diversify the product-mix • Fulfil the conditions to gain structural support	**WEAKNESSES-THREATS STRATEGIES** • Higher co-operation or common growing with some neighbour farmer to purchase the grapes (therefore reducing investment costs for requiered labour force) • Register the wine production to avoid the prescribed penalties

Source: Questionnaire Analysis.

Figure A8: S.W.O.T. analysis of the Brumec farm

INTERNAL FACTORS / EXTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
	• Educated and specialized labour force with high level knowhow in the area of specialization • The successor is a co-owner • Dry wine • Secondary activity developed (schnapps production) • Mainly direct selling – payment discipline • Due to not registered activity the wine and schnapps price is advantageous	• Machinery is not used at full capacity • Lack of own capital • Too high costs of wine production • 15% of insfrastructure not used • Simple packaging for schnapps
OPPORTUNITIES • Loans for new vinery • Vinery road • Higher share of organised groups of tourists travelling across Slovenia • New export markets (US) •Participation at organised seminars	**STRENGTHS-OPPORTUNITIES STRATEGIES** • Increase wine sales to the US market and negotiate better price • Sales of cold domestic products (i.e. salami sausages) combined with wine to the established customers and tourists • Using the contacts from seminars to gain new costumers and needed information	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • Introduce some inventive home-made packaging for schnapps • Introducing cost control mechanism in the wine production (reducing costs) • Try to use unused capacity • Take the loan and invest in new vinery to target organised groups of tourists for wine tastings and cold cuts
THREATS • Higher competition on the Eu wine market • Stricter law on alcohol substance in the blood, while driving • Panalties for not registered activities • Strict conditions for gaining structural support	**STRENGTHS-THREATS STRATEGIES** • Introducing home-made dry fruit additional to fresh fruit or home made pear juice • Higher level of education will result in higher flexiblility • Combined products may raise the products' price and enable the farm to subsititute taxes if registered	**WEAKNESSES-THREATS STRATEGIES** • Increased co-operation within exporting wine (partnership) • Build the marketing strategy on targeting more consumers locally • Fulfil the conditions for gaining structural support

Source: Questionnaire Analysis.

Figure A9: S.W.O.T. analysis of the Fink farm

INTERNAL FACTORS / EXTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
	• Specialized and managerial knowledge & trainned labour force (knowhow in milk and wine production) • Production automized • Young successor • Good quality of products • Sales of tribal cattle	• Machinery not garaged • Machinery is not used at full capacity • Not fullfilled conditions for gaining the structural support this year • Secondary activity not developed •High costs of cold storage (rented)
OPPORTUNITIES • Loans for new equipment and infrastructure • Farm's location near Žička kartuzija (a cloister that is still in the process of renovation) – tourist attraction • Increased demand on juices • Main house can host 30 visitors	**STRENGTHS-OPPORTUNITIES STRATEGIES** • Main house could host organised groups of tourists and maybe offer them some milk products (cottage cheese) • While the milk production is automized the farm could use the exceeded labour for making home made cottage cheese • Further use the advantagoues price of tribal cattle	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • Invest in new cold storage • Invest in new garages for machinery • Try to use unused wine-making equipment capacity to produce grape juice • Make contacts with tourist office running the cloister to gain the tourists
THREATS • With the EU accession the milk prices will fall • Milk quotas (introduced next year) • Dependance on one product only • Penalties for not registered activities	**STRENGTHS-THREATS STRATEGIES** • Increase the number of dairy cattle to reach the prescribed quotas • Buy additional quotas • Expand the product mix	**WEAKNESSES-THREATS STRATEGIES** • Think about supplementary activity to diversify the revenue • Introduce new dairy products (cottage cheese) to gain new customers that pay directly • Register wine production to avoid the prescribed panalties

Source: Questionnaire Analysis.

Figure A10: S.W.O.T. analysis of the Arih farm

INTERNAL FACTORS / EXTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
	• Large product mix (milk, wine, livestock, sausages, firewood) - activities and revenue are diversified • Enough labour force, available part-time or occassionally • Four family members employed (reducing costs, increasing new ideas) • Direct selling – payment discipline	• Too high costs of wine production • Automation at medium level • Member of only one pertinent small-business association
OPPORTUNITIES • Increased demand on home-made products (like salami sausages) • Employed family members • Increased demand on home-made juices • Extensive apple orchards	**STRENGTHS-OPPORTUNITIES STRATEGIES** • Increase the quantity of processed products • The transfer of knowhow of employed labour force into the faming production methods • Partly use own capital to further diversify the farm's activity in products of higher value added • Introduction of apple juice	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • The membership in more associations would bring more contacts and increase the demand • Hihger participation at trainings and specialized seminars • Introducing cost control mechanism in the wine production (reducing costs) • Increasing level of automization
THREATS • With the EU accession the milk prices will fall • Milk quotas (introduced next year) • Higher competition on the EU wine market • Stricter law on wine substance in blood, while driving	**STRENGTHS-THREATS STRATEGIES** • Introducing home-made apple juice additionally to wine, to diversify further • Flexibility of holder could help the farm to overcome sharp competition	**WEAKNESSES-THREATS STRATEGIES** • Partly invest in automisation of some production processes • Get standards for salami sausages • Build the strategy on targeting the same costumers with new products

Source: Questionnaire Analysis.

Figure A11: S.W.O.T. analysis of the Podkubovšek farm

INTERNAL FACTORS EXTERNAL FACTORS	**STRENGTHS** • Medium level of specialized knowledge • Automative production process • Occassional labour force available • Direct selling – payment discipline • Trials for diversification (columns)	**WEAKNESSES** • Old holder (active labour force is 39 years old) • A labour force (son) is not a holder • Lack of labour force • Too high costs of wine production • Old main house and outside toilets
OPPORTUNITIES • Increased demand for drinkable wine • Other employed family members available occassionally • Demand on processed meat products (i.e. sausages)	**STRENGTHS-OPPORTUNITIES STRATEGIES** • Increasing the level of specialised knowledge • Encourage transfer of knowhow in different fields of specialisation • Buy the additional must to produce larger quantities of drinkable wine • Introduce sausages as a supplementary activity	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • Investments in higher level of automisation • Think of cooperative marketing • Introducing cost control mechanism in the wine production (reducing costs) • Raising motivational level of active labour force by transfer the ownership to a son
THREATS • Higher competition on the EU wine and livestock market • Stricter law on wine substance in blood, while driving • Pigs breeding not controlled • Penalties for not registered activities	**STRENGTHS-THREATS STRATEGIES** • Introducing new products made from grapes (like home made juices) to widen the product mix • Introduce the pigbreeding quality control if possible • The occasional labour force could help to overcome sharp competition (cooperative with neighbour farmers)	**WEAKNESSES-THREATS STRATEGIES** • Invest in main house and toilets to ensure appropriate living conditions • Try to find the future successor (after the active son is going to undertake the farm) • Build the strategy on targeting the same costumers with new products

Source: Questionnaire Analysis.

Figure A12: S.W.O.T. analysis of the Zidanšek farm

INTERNAL FACTORS / EXTERNAL FACTORS	**STRENGTHS**	**WEAKNESSES**
	• Occassional labour force available • Revenue partly diversified • Direct selling – payment discipline • The land structure and klimate conditions are favourable for vineyards and grassland	• Low educational and specialized knowledge (bad cellering methods) & poor informative competence • Old holder (active labour force is 38 years old) • Vineyards out of the lifecycle • Not a member of pertinent small-business associations • Purchase market – not analysed
OPPORTUNITIES • Increased demand for drinkable wine • Neighbour farms interested in buying or managing land or a farm • Demand on labour force (enterprises in Loče – 3 kilometers from the farm) • Payments for extensive farming (tribal livestock, extensive growing)	**STRENGTHS-OPPORTUNITIES STRATEGIES** • The neighbour farm could overtake the management and farming on the farm in the form of partnership (holder and active labour could work for the overtaker) • Active labour member of the household could look for full-time employment and then he can sell or rent the farm land to the neighbour farmers interested in buying the land	**WEAKNESSES-OPPORTUNITIES STRATEGIES** • Include the active labour force in the specialisation courses • Encouraging the business or farming initiatives of the active labour force • Using advisory services and expert (family relative) for making restructuring plan and future business plan for the farm • Introduce extensive farming
THREATS • Higher competition on the EU wine and livestock market • Stricter law on wine substance in blood, while driving • Pigs breeding not controlled • Penalties for not registered activities	**STRENGTHS-THREATS STRATEGIES** • Use LFA payments for investments in restructuring of the farming activities • Introduce the quality control for pigs • Register the farming activity	**WEAKNESSES-THREATS STRATEGIES** • Selling the grapes or must directly to the neighbour farmers or intermediate (to avoid the damage made by bad cellering methods) • Try to find the future successor (after the active son is going to undertake the farm) • Build the strategy to think about new activity, new products offered and new markets

Source: Questionnaire Analysis.

Appendix 11

QUESTIONNAIRE: VPRAŠALNIK

Kratka zgodovina kmetije:

1. Podatki o kmetiji

- velikost kmetije
  - lastno zemljišče:_____ ha
  - najeto zemljišče: _____ ha
- zemljiške kategorije
  - njive, vrtovi: _____ha lastno /_____ha najeto
  - travniki: _____ha lastno /_____ha najeto
  - pašniki: _____ha lastno /_____ha najeto
  - vinograd: _____ha lastno
  - sadovnjak: _____ha lastno
  - nerodovitna tla: _____ha lastno
  - gozd:_____ha lastno
- gospodarska poslopja
  - velikost hleva: _____m^2 (povprečna velikost 96,20 m^2)
  - št. stojišč oz. mest v prosti reji: _____
  - velikost senika: _____m^2 (povprečna velikost 125,40 m^2)
  - silos:_____m^3 (povprečna prostornina 147,53m^3)
  - zidanica:_____m^2
  - ostalo: _____
- strojna oprema (število in starost opreme)
  - traktor: _____
  - nakladalnik za spravilo sena: _____
  - obračalnik: _____
  - pajek: _____
  - plug: _____
  - brana: _____
  - kosilnica: _____
  - molzni stroj: _____
  - puhalnik: _____
  - trosilec za umetni gnoj: _____
  - trosilec za hlevski gnoj: _____
  - cisterna: _____
  - škropilnik: _____
  - balirka: _____
  - ostalo (prikolica, predsetvenik, rotacijski zgrabljalnik, slamoreznica, silokombajn in kombajn za koruzo, razmetovalec, mlin, izkopač, mlatilnica, pajkl, vajlar, gozdarski vitel za spravilo lesa, sejalnica za strnjeno setev, sejalnica za presledno setev, sadilec za krompir)

- število glav živine
  - krave molznice: _____
  - krave dojilje: _____
  - plemenske telice: _____
  - teleta pod enim letom: _____

- biki za pitanje: _____
- konji: _____
- ovce: _____
- prašiči: _____
- koze: _____
- perutnina: _____
- drugo: _____

1. **S katero kmetijsko dejavnostjo se ukvarjate?**

- poljedelstvo – povprečna letna količina
  - žita: površina _____ha
  - koruza: površina _____ ha ter_____ m^3
  - krompir: površina _____ ha ter_____kg
  - sadje: _____ tone
  - ostalo:

uporabim za krmila_____
(koliko?)
količina _____

- načini gnojenja
  - hlevski gnoj: da
  - umetni gnoj: _____kg/leto

- živinoreja – povprečna letna količina
- pitanci:_____ kom. in _____kg
- mleko: _____ litrov
- jagenjčki: _____kom.
- les: _____ m^3
- krave dojilje/telički: _____
- drugo: prašiči, perutnina_____

prodaja_____

količina _____

kupec _____

	da	ne
• vinogradništvo – povprečna letna količina	☐	☐

- belo grozdje:_____ha in_____kg
- rdeče grozdje:_____ha in _____ kg
- belo vino:_____ l ali _____steklenic
-rdeče vino:_____ l ali_____steklenic

sorte _____

- načini gnojenja
  - hlevski gnoj: da
  - umetni gnoj: _____ kg/leto
- škropljenje
- kolikokrat letno_____

- količina porabljenih škropiv: _____kg/leto

prodaja

	da	ne
- grozdje	☐	☐

komu prodajate?_____
(KZ, posrednik, privatni kupci)

	da	ne
- vino	☐	☐

odprto vino _____
povprečna letna prodana količina _____

flaširano vino_____
povprečna letna prodana količina _____

Ali sami vzdržujete vino? (ali sodelujete z enologom?)

- gozd

Ali prodajate les (za drva, predelavo, …)?

Povprečna letna prodana količina? _____

Komu? _____

Kaj je osnovna dejavnost kmetije? (opis – npr. živinoreja: 8 krav,…; prosta pašnja, pridelovanje)
- živinoreja
- vinogradništvo
- turizem

3. **Dopolnilne dejavnosti, s katerimi se že ukvarjate (registrirana ali ne)**
   - turizem
   - predelava lesa
   - pridelava mesnih izdelkov
   - pridelava žganja
   - drugo
     - žaganje
     - peka peciva (v okviru Društva podeželskih žensk)
     - vzdrževanje cest in pluženje snega
     - jahalna šola in soba za turiste
     - športno igrišče, gostinstvo
     - čebelarstvo (za lastne potrebe)
     - prevoz živali
     - sečnja in spravilo lesa
     - šola jahanja, športno-turistično jahanje

- produkti iz moke
- športno jahanje
- sečnja in spravilo lesa ter žaganje

4. **Ali bi bili pripravljeni dopolnilno dejavnost registrirati**

- ne:
- da:

Kakšno pomoč pričakujete oziroma potrebujete pri tem?

- svetovanje pri pridobitvi ustreznih dovoljenj:
- pomoč pri pridobitvi dodatnih sredstev za investicijo:
- pomoč pri trženju izdelkov:
- pomoč ni potrebna:

5. **Ali bi se morda želeli ukvarjati z dopolnilno dejavnostjo (in s katero, možnih več odgovorov)**

- ne:
- da:
  - kmečki turizem v povezavi s konjerejo:
  - kmečki turizem:
  - pridelava in predelava zelenjave (katere vrste zelenjave?):
  - vzreja konj:
  - športno jahanje:
  - predelava mleka (skuta, sir, kozji sir):
  - izdelki iz ajdove moke in moke nasploh:
  - predelava mesa (skupaj še s kom ali če bi prišlo do vaške klavnice):
  - kmečki turizem v povezavi s športno dejavnostjo
  - fijakarstvo, jahanje
  - prevozništvo
  - turistična dejavnost, gostinstvo
  - traktorski prevozi
  - ekološka pridelava mesa (bikci)
  - ovčjereja
  - izdelava lesenih izdelkov
  - nabiranje in prodaja zdravilnih zelišč, gozdnih sadežev

Ali že imate potrebne prostore in opremo, če bi se odločili za dopolnilno dejavnost

prostor

- ne:
- da in/ali potrebna adaptacija:

oprema

- ne:
- da:

6. Katere investicije predvidevate v naslednjih petih letih

- zaokroževanje:
- nakup opreme:
- investicije v gospodarska poslopja: adaptacija , novogradnja
- nakup zemljišč:

Ali obstoječa lokacija omogoča navedene investicije

- ne:
- da:

7. Ali imate potrebo po dodatnem izobraževanju in usposabljanju (katera področja)

- ne:
- da:
  - konjereja
  - ovčereja
  - sadjarstvo
  - govedoreja
  - zakonodaja v kmetijstvu
  - biokmetijstvo
  - predelava mleka

8. V katera društva so včlanjeni člani kmetijskega gospodarstva?

9. Kakšni so vaši dolgoročni razvojni načrti? Kako vidite prihodnost vašega kmetijskega gospodarstva?

- ohranitev dejavnosti in/ali možna širitev/preusmeritev:
- zmanjšanje in/ali opuščanje dejavnosti:
- neznano:

Katere vire financiranja boste uporabili?

Ali ima kmetija prevzemnika?

- kmetija ima perspektivo:
- kmetija nima perspektive:
- neznano:

PRODAJNI TRG

Tržna proizvodnja	količina	vrednost (SIT)
- mleko		
- teleta		
- izločene krave		
- stac. turizem		
- izletniški turizem		
- les		
-		
Skupaj:		

Kaj je glavni vir dohodka in kaj preostali del?

Kdo je kupec pridelkov na kmetiji?
(KZ, drugi posrednik, privatni kupci na domu)

Ali je primernejša kooperacija (posrednik) ali lastno izvajanje trženja? (zakaj)

Kakšna je struktura kupcev (starost, okus, …)?

Kako kupci zvedo za vaš pridelek/ izdelek? – Kako prodajate?

Ali ponudite popust pri prodaji večje količine?

	da	ne
Prodaja raste?	☐	☐
Ali kupci želijo vedno boljši pridelek/proizvod?	☐	☐
Ali ljudje vprašujejo za nakup viškov pridelkov?	☐	☐

Kdo ponuja enak pridelek/proizvod? (konkurenca)

Ali npr. kupci povprašujejo po kombiniranih pridelkih oziroma proizvodih (npr. vino +klobase)?	☐	☐
Ali je prodaja upadla, ko so se pojavili veliki trgovinski centri (Interspar, Tuš, itd), ki ponujajo vse proizvode po ugodni ceni na enem mestu?	☐	☐

Ali prodate pridelane viške (mesa, krme,…)? _____

količina_____

kupec _____

uporabim doma _____

Ali dostavljate proizvode ali jih pridejo kupci iskat na dom?

(če dostavljajo) Ali lahko izboljšate metode dostave?

Ali lahko znižate stroške dostave?

Ali je bolje imeti lasten prevoz ali najet prevoz?

Ali distribucijski kanali ustrezno pokrivajo teritorij?

Bi bilo smiselno prodreti na nov teritorij?
Ali izvajate poprodajne storitve?

Zagotavljate storitve kupcem? (npr. da si sami odpeljejo npr. gnoj s traktorjem)

Kako uporabljate pripombe kupcev za izboljšanje pridelkov/storitev?

OBLIKOVANJE CEN

So cene primerne glede na cene proizvoda na trgu?

Ali cene zagotavljajo zadostno razliko v ceni glede na stroške?

NABAVNI TRG

Kaj nabavljate? letna količina

- surovine (les, drobni material za gostinske storitve, steklenice za flaširanje)
- gnojila (mineralna, naravna)
- veterinarske storitve
- elektrika
- nafta
- krmila
- koruza
- ječmen
- škropiva

Ali pri nabavi analizirate potrebe (npr. nabavne cene nabavljenega materiala, primerjava storitev dobavitelja, način plačila)?

PROIZVODNJA/ PRIDELAVA

Ali so vsi prostori na kmetiji izkoriščeni?

Koliko je neizkoriščenega prostora?

Zakaj bi ga lahko izkoristili?

Kolikor ur posameznik na dan kmetuje na vaši kmetiji (poleti _____, jeseni _____, pozimi _____)?

Ali obstajajo možnosti, da bi posameznik opravil več na dan kot sicer opravi? (kako?)

Kolikšna je poraba elektrike in goriva?

Ali uporabljate najboljšo razpoložljivo pridelovalno tehnologijo?
Ali pridelava s svojo organizacijo zagotavlja zahtevano kakovost proizvodov?

Ali kontrolirate kvaliteto proizvoda/pridelka/storitve?

Je lokacija npr. pridelave primerna?

Se oprema ustrezno vzdržuje?

Ali je oprema/ ali so stroji ekonomično razporejena v proizvodnih prostorih?

Kako skrbite za zaloge surovin in končnih izdelkov?

	da	ne
Ali bi bili lahko stroji bolj izkoriščeni?	☐	☐
Ali bi bili lahko stroji izven sezone izkoriščeni v druge namene?	☐	☐

Za katere namene? _____

Ali uporabljate prilagojene stroje za hribovska območja?	☐	☐
Ali veste, da je mogoče pridobiti nepovratna sredstva za sofinanciranje nakupa takšnih strojev?	☐	☐
Ali surovine popolnoma izkoristite?	☐	☐

Koliko imate ostankov?_____

PROIZVOD

Opišite vaše pridelke/proizvode! (velikost, sestava, materiali, okus, trdnost, trajnost, trajnost ali pokvarljivost)

Ali se vaš pridelek/proizvod/ storitev razlikuje od drugih podobnih pridelkov/proizvodov/ storitev drugih ponudnikov?

Kako se razlikuje? (po okusu, obliki, po čem kupci poznajo vašo kmetijo, kaj jim je najbolj všeč kadar pridejo in kaj jim je najbolj všeč pri proizvodu – okus, domačnost, …

- če ga npr. primerjate s proizvodom na trgovinski polici (katere prednosti ima, in katere slabosti ima)?

- če ga primerjate s proizvodom, ki ga ponujajo okoliški kmetje (katere prednosti ima, in katere slabosti ima)?

Ali lahko izboljšate kakovost vašega proizvoda, da bi tako lahko kupcu ponudili več oziroma to kar si želi?

Je vaš proizvod po kakovosti odličen, dober, srednje dober ali manj dober?

Ali lahko ta proizvod nadomesti drugi proizvod? (substitut)

Kateri?
Ali poskušate povečati uporabo vaših proizvodov (npr. slive – uporaba: slivova marmelada, slivov kompot)?

Ali širite paleto pridelkov/proizvodov?
Ali se potrebe vaših kupcev spreminjajo?

DELOVNA SILA

Demografski podatki

- število družinskih članov na kmetijah:
- kdo lastnik:
- starost:
- zaposlitev
  - kmet/kmetica:
  - zaposlen drugje:
  - kmečki upokojenec:
  - upokojenec:
  - nezaposlen:
- izobrazba
  - nedokončana osnovna šola:
  - osnovna šola:
  - 3. stopnja:
  - 4. stopnja:
  - 5. stopnja:
  - 6. stopnja:
  - 7. stopnja:

Kolikšna je potreba po delovni sili v sezoni?

Ali najemate delovno silo?

Kako je s plačilom?

Ali je delo primerno porazdeljeno med zaposlenimi?
Kolikšna je vključenost v informiranje, kakšen je pretok informacij?

Kako določate cilje in sprejemate odločitve?

Ali so določene naloge posameznih zaposlenih in odgovornosti zaposlenih?

Motiviranost (ali so zaposleni motivirani, kakšne so delovne razmere, vpliv plač na delavce)?

Ali si postavljate kakšne cilje za kmetovanje vnaprej?

Ali ste do sedaj uspeli realizirati zastavljene cilje?

Ali se udeležujete izobraževanj, ki jih organizira KSS, razna društva, itd?

Ali se pri delu učite ali samo prilagajate?

Ali lastnik učinkovito organizira svoj čas?
Ali je delo dobro organizirano glede na cilje, ki jih ima kmetija (misija)?

Ali je kmetija dovolj odprta?

Ali spremljate rezultate, ter dosežene učinke pri opravljanju vaše dejavnosti?

Se vam zdi, da lahko sledite spremembam v svojem okolju?

SUBVENCIJE

Ali dobite subvencije?

Ali se boste prijavili tudi na kakšen drug razpis za uveljavljanje nepovratnih sredstev?

Ali spremljate razpise? Kje?

FINANČNI REZULTATI

Katere vrste dohodkov imate?

	da	ne
- dohodek od prodaje govedi	☐	☐
- dohodek od prodaje trave, slame, krme	☐	☐
- dohodek od prodaje mleka	☐	☐
- dohodek od prodaje poljščin	☐	☐
- dohodek od prodaje grozdja	☐	☐
- dohodek od prodaje vina	☐	☐
- dohodek od prodaje prašičev	☐	☐
- dohodek od dopolnilne dejavnosti	☐	☐
- pokojnina	☐	☐
- kmečka pokojnina	☐	☐
- delavska pokojnina	☐	☐
- drugo	☐	☐

(kaj) _____

Katere vrste stroškov imate?

	da	ne
- splošni stroški (elektrika, telefon, TV, prispevki, članarine)	☐	☐
- stalni stroški strojev	☐	☐
- katasterski dohodek	☐	☐
- obvezno zdravstveno zavarovanje	☐	☐
- prostovoljno zdravstveno zavarovanje	☐	☐
- obvezno pokojninsko in invalidsko zavarovanje	☐	☐
- nakup škropiv	☐	☐
- nakup mineralnih gnojil	☐	☐
- nakup goriva	☐	☐
- plačilo najete delovne sile	☐	☐
- investicijski stroški	☐	☐
- obresti, kredit	☐	☐
- drugo	☐	☐

(kaj?)_____

Kdo sprejema odločitve glede organizacije dela, financ?

Kdo vodi delo?

Ali je na vaši kmetiji vzpostavljen sistem spremljanja stroškov?

Kateri pridelek/proizvod je najbolj donosen ?

Ali načrtujete izdatke glede na razpoložljivi denar?

Kako se seznanjate s spremembami v okolju, ki vplivajo na kmetijo (o dobaviteljih, kupcih in konkurentih)? Kje dobite informacije?

Ali bi potrebovali dodatno računalniško opremo in znanje?

I. BAZA RESURSOV

	da	ne
Ali imate na razpolago dovolj financ za vlaganja na kmetiji?	☐	☐
Ali potrebujete boljšo mehanizacijo/ tehnologijo?	☐	☐
Ali potrebujete več zgradb, prostorov?	☐	☐
Ali je mogoče z razpoložljivo delovno silo narediti več, ob boljšem vodenju in organizaciji?	☐	☐
Ali bi vam koristilo več znanja? Zakaj ga ne dobite?	☐	☐
Ali sodelujete s sosednimi kmeti? V kateri fazi življenjskega ciklusa so vaši proizvodi?	☐	☐

II. BAZA V IZKUŠNJAH

Koliko je kmetija stara? _____

Ali vas je vaš prednik priučil za opravljanje kmetijske dejavnosti? ☐ ☐

Koliko let ste lastnik? _____

Ali ste od prejšnjega lastnika dobili veliko izkušenj v kmetijstvu? ☐ ☐

Ali sodelujete s finančnimi institucijami? ☐ ☐

Ste že koristili kredit? ☐ ☐

Ali vaš proizvod ostaja vedno enak? ☐ ☐

Ali proizvod prilagajate željam kupcev ali različnim skupinam kupcev?

Ali uspešno sodelujete s posredniki?

III. BAZA V KONTROLI

Ali kdo spremlja uspešnost opravljenega dela (dosežene cilje)? ☐ ☐

Ali so posamezniki na kmetiji specializirani? ☐ ☐

Kaj so specializirani _____

Ali imate razdeljene naloge, ki jih posameznik opravlja? ☐ ☐

Kako posamezne odločitve spravite v prakso?

Načrtujete porabo denarja za vnaprej? ☐ ☐

IV. BAZA V VODENJU

Starost lastnika _____

Osebni cilji_____

Kako dolgo dela lastnik na kmetiji? _____
Kako vpliva vaša družina na delo na kmetiji?

_____

_____

Ali vas zanima kaj se dogaja v slovenskem kmetijstvu, na okoliških kmetijah, …? ☐ ☐

Kdo skrbi za urejanje vlog za subvencije, plačevanje, urejanje drugih poslov (poslovodenje?)
Ali kdaj nagradite sebe, in tiste, ki delajo na vaši kmetiji? Kako?

Ali je ta nagrada za njih res nagrada? ☐ ☐

V. BAZA V IDEJAH

Ali želite uvajati novo tehnologijo, nove proizvode, imate nove ideje o proizvodih?

Kje dobite ideje?

Ali lahko te ideje uporabite pri izboljšanju proizvoda? ☐ ☐

Koliko novih idej ste razvili pri kmetovanju?

Na katerem področju jih uvajate?

Ali so te ideje, ki ste jih uporabili pri proizvodu, povečale dohodek? ☐ ☐

Imate izdelan poslovni načrt? ☐ ☐

Imate kakšen prototip? ☐ ☐

Ali so vaše ideje nastale zaradi želja kupcev ali zaradi potreb obdelave/pridelave?

OCENA LASTNIKOV

Glede na dosežene uspehe pri kmetovanju, kakšen je trenutno položaj vaše kmetije? Je uspešna, srednje uspešna, manj uspešna?

Kje bi po vaši oceni, kmetija morala biti? (potencial)

Kaj vas ovira pri kmetovanju, da bi dosegli zastavljene cilje? (zunanje, notranje ovire)

- Ali so slabe razmere za kmetovanje?
- Subvencije?
- Tehnologija?
- Struktura kmetije?
- Delovna sila?
- Prodaja?
- Nabava?
- Investicije?

TABLE OF FIGURES

APPENDICIES

TABLE OF TABLES

APPENDICIES