Farms in the less favoured area conditions in Slovakia

Ľuboslav SZABO, Miroslav GRZNÁR

Faculty of Business Management, University of Economics, Bratislava, Slovak Republic

Abstract: The paper deals with the management of agricultural businesses that operate in low-production conditions known as the LFA (Less Favoured Areas). Under these conditions, there are more than half of farms – legal entities. The past analyses have suggested that these farms are gaining more support funds, but objectively their costs are higher. The disparity is reflected in almost half of the loss-making farms, with worse results achieved more by agricultural cooperatives than by business companies. In the terms of the measures implemented in the rural development plan, the LFA farms apply multifunctional production structures. Slovak farms operating in the LFA conditions in the EU do not achieve the performance of the average LFA farms in the EU-25; however, they neither receive the amount of supports received by these farms in the Union.

Key words: agrarian policy, disparity results of farms, LFA farms position in the EU, LFA – Less Favoured Areas, strategy of farms

The area nature of agricultural production results in the situation that this production takes place in differentiated production conditions, which considerably influence the utilisation of the employer entities' production sources, as well as the economic results achieved. Production and a transformation processes are affected mainly by the soil quality, the scope of permanent grasslands, natural and climatic conditions, the distance from the supply and sales centres and other factors.

In the present paper, we analyse economic results of businesses operating in worse/disadvantaged production conditions designated as the LFA (Less Favoured Areas). As much as 57% of agricultural land in the Slovak Republic is categorised in this group, and several hundreds of corporate entities, both legal persons as well as natural persons, operate in this area. The aim of the paper is to assess the disparities in economic results of these businesses – legal persons and to identify the causes of these disparities.

In the contemporary turbulent market environment, even agrarian businesses have to flexibly respond to market signals and to maintain their economic equilibrium, while an important role is played by their management. However, apart from the standard market factors, an important role is played by the regulation of the industry by the Common Agricultural Policy of the European Union (CAP) and the utilisation of the regulatory and support tools of the industry management; in the SR, it is the Ministry of Agriculture and Rural Development. Under the LFA conditions, however, there are in force other significant restrictions to farming on the one hand for extensive mountain regions, for the regions with important water sources or for those with historical aspects.

In accordance with the EU Common Agricultural Policy (CAP), the farming of agribusinesses under the LFA conditions assumes their orientation to the rural development, to improving and supporting sustainable systems of farming, environmental protection, maintaining the character and settlement of the country, as well as securing adequate incomes of the business entities.

This orientation of our agribusinesses should be facilitated also by special supports financed under the Plan of Rural Development and its separate lines from the EU sources, and also from the state budget.

At present, the EU programming period for the years 2007–2013 is drawing to an end, and the preparation of the budgets for the years 2014–2020 is under way. These budgets also include the changes in the financing of agriculture, while these changes are currently discussed in the Union bodies as well as in the professional and scientific press in member countries.

Differences in farming of the agribusinesses are evaluated on a systemic basis by the Research Institute

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of Economics of Agriculture and Food Industry (VÚEPP) in Bratislava in the annual reports on agriculture and the food industry in the SR, which are prepared for the Ministry of Agriculture and Rural Development SR, as well as in the publications of their workers. Chrastinová (2012) assesses the economic differentiation of agribusinesses for the period of 2004–2011 and states that most of the industry's losses are created by the long-term loss-making businesses. Farming of the agricultural businesses in terms of businesses operating in the LFA is also evaluated in our papers (Grznár and Szabo 2008, 2009). When choosing the production farms' programmes, Kay (1986) recommends to consistently use planning procedures based on the measuring of the return on sources expended (return of investments).

Also Vukoje and Dobrenovin (2011) in Serbia explore the funding of agricultural and food businesses; the developmental financial sources in the Chinese agriculture are assessed by He et al. (2011). Štolbová and Míčová (2012) analyse the economy of large and small farms operating under the LFA conditions in the Czech Republic (CR), when the supports are distributed according to the area of land irrespective of the size of a business. They conclude that it would be more suitable to decrease the LFA payments in relation to the size of business.

MATERIAL AND METHODS

Our analysis is based on the accessible secondary and primary statistics about Slovak agriculture. To analyse the results of farming of the businesses operating under the LFA conditions, we use as the primary sources of the Ministry of Agriculture and Rural Development (MPRV) SR database based on the Official Journals for the years 2009–2011, which contains data on agribusinesses in the SR holding the status of legal entities.

We use the standard research work methods in analyses, e.g. analysis and synthesis, comparisons, descriptive statistics, and graphic representation.

Monitoring the economic situation in agriculture and in the food industry is the subject of the annually prepared Report of Agriculture and Foodstuff Industry in the SR, which includes the macroeconomic views as well as those of the economic situation of corporate entities in agriculture, from which we will draw some secondary information. The position of businesses in the LFA conditions in the EU will be assessed in this paper by the means of the EU FADN data, which are at disposal on the EU website.

LFA CONDITIONS IN THE EU COUNTRIES

The EU statistics differentiate disadvantaged conditions of farming into two categories. The first one is referred to as the *LFA mountain region*, the second one as the *LFA other except mountains*. In the year 2008, there were published the total results of investigating the farming of businesses operating under the LFA conditions, the average of years 2004–2005 for the EU-25 countries and for individual countries. Table 1 contains some information about average business in the LFA conditions within the EU-25.

Businesses operating in the LFA conditions outside mountains have at their disposal a larger area of land; they raise more livestock and are economically stronger. The supports granted to these businesses approach the amount of the net value added of farms.

We will use the available results of the investigation mentioned to illustrate the differences in the profit/loss and receiving payments under the conditions of businesses which are the recipients of payments for the LFA in the EU (Table 2).

Farms in the EU-25 are rather small in comparison with those in the SR and the Czech Republic and remain small also when comparing the indicators expressed per the average farm. The calculation per 1 worker or the unit of soil depicts most indicators in an inverted way. In the area of agricultural land per 1 worker, the average farms in the LFA in the CR or in the SR are comparable with the EU averages, however, not in other indicators, including the supports granted. In the creation of the net value added and the livestock numbers, the SR and CR are deep below the EU average.

Table 1. Key data of average business/farm in the LFA EU-25, the average of years 2004–2005

Indicator	LFA	
	mountain region	other
Businesses in sample	5 746	13 781
Economic size in ESU	20	26
Agricultural land (ha)	35	50
Number of gross cattle unit	28	38
Farm net value added (€)	20 693	22 618
Payments in LFA (€ per farm)	3 891	2 311
Direct payments (€ per farm)	15 334	16 307

Source: EU FADN, DG AGRI (available at www.eu/ec/agri, accessed January 2013)

Table 2. Selected indicators for farms receiving payments for the LFA in the EU, the average 2004–2005

Indicator	EU-15	EU- 25	Austria	Czech Republic	Slovak Republic
Agricultural land used (ha)	50	46	32	400	665
Labour force (number)	1.44	1.61	1.68	13.08	21.82
Gross cattle unit per farm	41	35	28	202	229
Direct payments of farm (€)	19 285	16 184	19 673	42 529	96 008
Payments for LFA per farm (€)	3 171	2 804	4 043	17 581	37 996
Calculation per 1 ha, 1 worker					
Agricultural land per worker	34.7	28.6	19.0	30.6	30.5
Gross cattle unit per 1 ha agricultural land	0.82	0.76	0.87	0.50	0.34
Net value added (€)	522	579	937	306	131
Direct payments (€)	386	352	615	106	144
Payments for LFA (€)	63	61	126	44	57

Source: EU FADN, DG AGRI (available at www.eu/ec/agri, accessed January 2013); own calculations

RURAL DEVELOPMENT AND ITS STIMULATION IN THE SLOVAK REPUBLIC

Less favoured conditions in the Slovak agriculture in terms of their scope and as well as the size of the operating businesses outnumber the so-called production conditions, which offer more favourable conditions for the agricultural production. The CAP therefore provides specific forms of supports to businesses operating in the LFA conditions; these supports are integrated into the Programme of Rural Development, from which also the businesses operating in production conditions are able to draw on the basis of approved applications for support and projects. Table 4 lists the paid out supports for the rural development granted in the recent period (Table 3).

Since the supports from the resources of rural development are not claimable and are granted on the basis of applications and projects, they fluctuate year-on-year. In the year 2011, compared against the preceding period, both items considerably decreased. The share of the LFA supports in the overall supports for rural development, however, did not change, although their volume also declined. Indeed, the LFA supports and other measures for rural development represent only a part of the acquired supports; the second part contains direct payments provided and other supports from national sources.

Businesses operating in the LFA conditions are expected to orientate to the development and utilisation of rural sources via sustainable economy systems; they are expected to take care of the environmental protection and maintaining the nature and settlement of a country. Agrarian policy should secure to business entities operating under these conditions adequate incomes and cost-effective farming.

Strategies of businesses operating in the LFA conditions should therefore avoid copying strategic solutions mainly in the area of the intensification of production of the businesses operating in the production conditions of the SR. Let us compare some indicators of an average business in the LFA conditions and in the production conditions in the year 2011 (Table 4).

More businesses operated under the LFA conditions than under the production conditions, but in the performance of the businesses expressed by the

Table 3. Subsidies for the rural development in mill. € and sources of funding in the SR

Indicator	2010			2011		
	EU	SR	total	EU	SR	total
LFA	81.4	20.8	102.2	67.9	17.4	85.3
Other measures	286.4	92.5	378.9	245.5	77.7	323.2
Development of countryside total	367.8	113.3	481.1	313.4	95.1	408.5

Source: Ministry of Agriculture and Rural Development SR (2011)

Table 4. Selected indicators of profit/loss in the production and LFA conditions in the SR, year 2011 (€/ha, €/worker, %)

Indicator	Area		% LFA/production
	production	LFA	
Number of businesses	568	844	148.6
Revenue per ha	2 590	966	37.3
Profit/loss	116	15	12.9
Production consumption, input	1 239	583	47.0
Value added per worker	17 844	7 748	43.4
Share of sales on yields (%)	60.0	53.9	89.8
Numbers of livestock per 100 ha of agricultural land	21.9	26.2	119.6
Current supports	243	254	104.5

Source: MPRV SR, VÚEPP(2012), own calculations

selected indicators, the production businesses fare better. In yields, productivity of labour, or in production consumption, the production businesses highly surpass the results of the businesses in the LFA. It is similar also in the case of profit/loss, which in the LFA achieves only 12.9% of the result achieved by the businesses in production conditions.

We can evaluate positively higher numbers of livestock in the businesses operating in less favoured conditions and a little higher support, which could be, however, also higher, in the view of the nature of the business. The share of the sales of own products in the yields is objectively lower in worse conditions; because these are included also in the non-agricultural activities and services, which occupy their place in the rural development.

Less favoured conditions naturally influence also the effectiveness of the transformation process, while on 1 € of production consumption the businesses in the production conditions achieve 2.09 €, but the LFA only 1656 € of the production value.

The businesses in which over 50% of the utilised land fund falls in the LFA were put in the group of businesses operating in less favoured conditions in the set analysed.

DISPARITY IN FARMING OF AGRICULTURAL BUSINESSES UNDER THE LFA CONDITIONS

Although businesses operating in the LFA conditions with considerable restrictions in the quality of resources have a worse soil quality, frequently unfavourable natural and climatic conditions, in spite of that their managers should pay a greater attention to farming and options of production structures. Anticipated climatic changes, in particular the global warming, are, in fact, connected under our conditions with the shift to growing a series of crops even to worse conditions. In the year 2012, there were recorded some cases when the businesses in the LFA conditions achieved better crops of cereals than those in the production conditions which were hit by the draught.

So that businesses in the LFA conditions may maintain their competitiveness, they have to, similarly as the businesses in the production conditions, endeavour for cost savings, the orientation of production structures according to market signals, joining commodity chains, and in this way ensuring the sales of products, trying to rationalise the production processes and continuously modernise their production base. A series of businesses undoubtedly behave in this way. Let us analyse the differentiation of farming of the businesses in the LFA conditions in the years 2010 and 2011 (Table 5).

The table lists results of businesses – legal persons for the last two years, while each year they are classified also in the terms of prosperity into profit-making and loss-making. In the year 2011, the number of profit-making businesses rose in absolute figures and also in the relative terms, when the share of the profit-making businesses in the total number of the reported businesses increased from 65% to 71% in the year 2011. The profit/loss of profit-making businesses also improved, while the loss-making businesses recorded only a mild decrease in the loss.

Profit-making businesses applied the intensification strategy, which is proved by the increase in the

Table 5. Disparity of farming of businesses operating under the LFA conditions during 2010–2011 in €/ha, co-efficient

Indicator	2010		2011	
	profit-making	loss-making	profit-making	loss-making
Number of businesses	518	280	601	243
Yields	1 247	1 021	1 529	902
Profit/loss	37.5	98	57	92
Production consumption	544	539	726	483
Value added	112	69	216	65
Cattle heads per farm	331	403	326	344
Current supports	303	285	262	270
Production/production consumption	1.172	1.121	1.264	1.131

Source: MPRV SR, VÚEPP (2011, 2012), own calculations

production consumption by 33% as compared with the preceding year, which resulted in the rise in yields by 22%. Also the effectiveness of the transformation of production consumption to production increased, however, only by 7.8%. Loss-making businesses were lagging behind the profit-making ones in generating the value added. On the other hand, they raise more livestock, but the numbers of cattle are falling in both groups of businesses.

In Table 6, we evaluate the disparities in the economy of profit-making and loss-making businesses on the basis of the year 2011 in a greater detail.

The data indicate that the main factors determining the success of businesses operating in the LFA conditions are higher values of the fixed capital (long-term tangible assets), in particular a higher value of machines and equipment in it (independent movables), lower labour forces and a little larger area of the business. The competences of managers in managing the production and transformation processes cause that the profit-making businesses operate with a higher intensity and they record a high productivity of labour and they better appreciate the purchased input, wages and salaries expended and also supports provided. It is these parameters in which the profit-making businesses differ the most from the loss-making businesses. Disparities of both groups of businesses are illustrated in Figure 1.

In the picture, the disparity is expressed as the differentiation of the averages of profit-making and loss-making businesses to the average of all businesses operating in the year 2011 in LFA in the Slovak Republic.

Loss-making businesses reported better results than the profit-making businesses only in the indicator of the effectiveness of transformation of production consumption in production; however, at a very low production and also production consumption. In all other indicators, the "spider of performances" of profit-making businesses is higher than in the loss-making businesses.

Table 6. Analysis of economic management of businesses in the LFA conditions in the year 2011 (€/ha, €/worker, co-efficient)

Indicator	Profit-making	Loss-making	Total
Number of businesses	601	243	844
Size of business in ha of agricultural land	1 284	1 217	1 265
Yields per 1 ha	1 526	902	966
Costs	1 454	989	1 068
Profit/loss	57	–92	15
Production consumption	726	483	583
Long-term tangible assets	1 269	1 139	1 221
Of that independent movables	318	264	224
Number of workers per 100 ha	2.157	2.435	2.181
Yields per worker	70 730	37 015	53 555
Yields/wages			
Yields/supports			
Sales for own products	830	464	521

Source: MPRV SR, VÚEPP (2011, 2012), own calculations

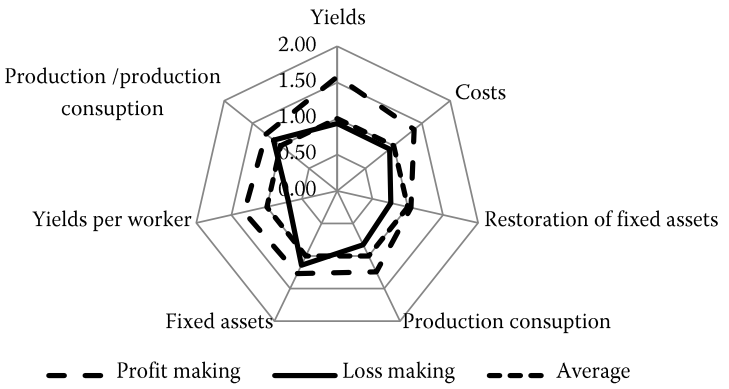

Figure 1. Disparity of selected indicators in the loss-making and profit-making LFA businesses

Source: MPRV SR, VÚEPP (2012), own processing

PROFIT/LOSS DISPARITY ACCORDING TO THE LEGAL FORM OF BUSINESS

The differentiation of businesses in the LFA conditions by the legal form of business is depicted in the Table 7, where three-year averages of the selected indicators in both types of businesses are compared.

The comparison of averages of the selected indicators for the last three years of farming suggests that profit-making business companies (P) report a higher performance; they intensify their production more markedly and achieve a higher profit/loss than agricultural cooperatives (AC). Undoubtedly, these results are due to a better management, a better utilisation of production sources and owing to a rational utilisation of live labour. Disparities between both types of businesses by the key indicators are depicted in Figure 2.

Visualisation of the mentioned selected indicators of the AC and P confirms that the Ps record a higher performance not only in the profit-making category but also in the loss-making category of businesses.

STRATEGY OF BUSINESSES UNDER THE LFA CONDITIONS

Disadvantaged conditions markedly affect the farming of businesses operating there. A worse soil quality, a larger acreage of permanent grasslands predetermines raising of the livestock by the means of the pasture method and the multifunctional orientation of the entire business production base. In the protected areas with the sources of drinking water and precious fauna and flora, also the intensification

Table 7. Selected indicators of agricultural cooperatives and partnerships under the LFA conditions, average of years 2009–2011 (€/ha)

Indicator	Agricultural cooperatives (AC)		Business companies (P)	
	profit-making	loss-making	profit-making	loss-making
Number of businesses	179	169	350	114
Yields	1 131	947	1 455	1 021
Costs	1 083	1 045	1 379	1 143
Profit/loss	48	–98	77	-122
Production	670	556	731	596
Production consumption	521	499	540	590
Production/production consumption	1.273	1.115	1.421	1.010
Yields per worker	46 258	35 856	80 256	53 272
Long-term tangible assets	0.997	1.063	1.472	1 105
Yields/long-term tangible assets	1 134	1 147	988	0.929
Yields/wages	6.174	5.141	11.323	7.511
Number of cattle heads	0.310	0.316	0.223	0.215

Source: MPRV SR (2011, 2012), own calculations

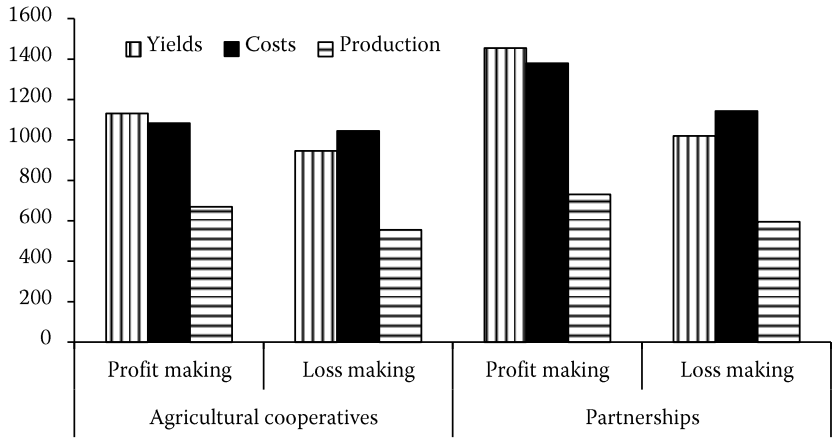

Figure 2. Performance of the profit-making and loss-making enterprises in the average of years 2009–2011 (€/ha)

Source: Own representation based on data in Table 7

and investment processes are limited, and so is the business market performance.

Through their support from the structural funds designed for the rural development, the EU agrarian policies assist these businesses in their involvement – apart from their own agricultural production – also in the related non-agricultural activities, e.g. the production and finalisation of regional products, agritourism, wood-processing, forestation of lands, and other.

However, the database at disposal does not enable to evaluate what strategic options the businesses operating in the LFA conditions tend to make. Partial views of the rate of differentiation in the production and market structures of these businesses are rendered by sampling investigation in the information database FADN, implemented by the Research Institute of Economics of Agriculture and Food Industry (VÚEPP) in Bratislava. That is indicated by the following table for the years 2009 and 2010.

The first line contains the total sales of all the 519 businesses that were listed in the FADN database for the SR in the year 2010. The number of businesses shows the number of respondents who reported sales of the given category. In businesses in the LFA conditions, the prevailing sales come from animal production and from services. Only a few businesses in the LFA database perform activities in tourism.

Year-on-year changes do not indicate any distinct developmental trends in the production orientation of businesses (Table 8).

CONCLUSION

More than half of the agribusinesses in the SR – legal persons operate in less favoured conditions. Their production should focus on the sustainable economy, providing job opportunities, securing rural development and performing also the non-agricultural activities. The analysis performed indicates that they are not always successful in doing that. This is reflected e.g., by the decrease in the raised livestock, as well as the small share of sales from non-agricultural activities.

Table 8. Structure of sales in the LFA businesses during 2009–2010 (€/ha)

Indicator	Mountain area		Unfavourable conditions		Specific conditions		LFA average	Number of businesses
	2009	2010	2009	2010	2009	2010	2010	2010
Total sales	434	423	598	624	551	632	1 038	519
Sales of crop production	84	79	245	228	288	336	304	463
Sales of animal production	683	735	738	935	771	943	936	357
Agricultural services	40	29	97	80	61	32	51	287
Sales for services	37	45	57	52	61	15	39	205
Agritourism	36	30	–	11	2	9	18	18
Other services	77	53	46	21	64	29	50	222

Source: FADN for SR 2009, 2010 (available at www.vuepp.sk, accessed January 2012)

The evaluation of results of farming by businesses operating in the LFA conditions suggests that the of legal persons and business companies achieve better results almost in all the indicators than agricultural cooperatives.

The position of Slovak farms in the LFA conditions is far from flattering: they hardly achieve the average performance of the LFA farms in the EU-25; neither do they receive the amount of supports received by these farms in the Union.

The orientation of farms operating under the LFA conditions will change with regard to the anticipated climatic changes; even under less favoured conditions it will be necessary to produce food commodities to provide for the nourishment of the inhabitants.

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Contact address:

Ľuboslav Szabo, Miroslav Grznár, University of Economics, Bratislava, Dolnozemská Rd. No. 1, 852 35 Bratislava, Slovak Republic
e-mail: luboslav.szabo@euba.sk, miroslav.grznar@euba.sk