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Evaluation of support for farms in less-favoured areas in the Czech Republic and Slovakia[22]

Abstract: *The background, criteria and scope of the spatial definition of LFA are very similar in both countries. Farm eligibility criteria are entirely different. In Slovakia the whole agricultural area of a holding is eligible for payment. In the Czech Republic it is only the area of grassland. Only the holdings breading cattle, sheep or goats at a given density per hectare are eligible in the Czech Republic. The aim of the paper is to compare the situation of LFAs in both countries and to particularly evaluate the impact of the different eligibility criteria at the farm level in the Czech Republic and Slovakia. The impact of LFA payments on land use, production structure, and agricultural employment and on the economic results of farms is analysed on the basis of chosen indicators. The research comes to the conclusion that farmers are significantly dependent on subsidies in both countries. The contribution of EU funds to LFA payment financial resources has resulted positively in the decrease of unused agricultural land and it delayed the labour input decline in both countries. The differences of farm eligibility criteria have led to differing trends of grassland acreage and livestock number.*

Keywords: *less-favoured areas, agricultural land use, production structure, agricultural employment, economic results and the economic situation of agricultural holdings*

Introduction

Since 1970s, measures concerning less-favoured areas (LFA) have been significantly changed. In compliance with the intention of Axis 2 of the Rural Development Program and according to Council Regulation No 1698/2005

22 The result of the project QF 3082 of The National Agency for Agricultural Research was used in this article.

natural handicap payments are not aimed at the maintenance of population in the countryside but primarily they should prevent the abandonment of agricultural land.

This trend is in compliance with the results of the scientific discussion about objectives concerning the support for rural development and it reflects the changed position of agriculture as a component of the countryside. Pursuant to the comparison of rural development policy in the European Union and United States of America, Blandford and Berkeley [1] emphasize that the economic role of agriculture in the countryside has been decreasing and that agricultural support in the future will not be an effective way to stimulate rural economic activities.

Whereas agriculture plays an important role in the formation of the rural countryside, in the rural areas of the EU-25 only 13% of the workers are employed in agriculture. In accordance with the European Model of Agriculture the LFA measures aim to maintain agriculture because it creates public goods (for example high nature value countryside) and it preserves biodiversity and agricultural land.

In 2003, the support scheme for Less-favoured areas in EU countries was criticized by the European Court of Auditors [5]. The Court of Auditors recommended a review of the current LFA classification and to undertake a comprehensive evaluation of the support scheme. The study elaborated by IEEP London for DG Agri [6] found that the broad scale of criteria which is used presently for the areas classified as LFA induces a disparity between individual receivers. The authors of the submitted paper dealt with the comparison of the LFA system of measures in the context of the other EU countries in their previous publications also [2, 3, and 4]. The outcome of this research was identical.

The European Commission with experts from the Joint Research Centre proposed a series of common bio-physical criterions that should specify less-favoured areas identically in all EU countries. The eligibility criteria at the individual farm level should remain in the competence of individual countries. However the authors believe efficient and effective targeting of the LFA measure scheme is better achieved at the farm level. A better unification of the farm level criteria is also desirable.

The aim of the paper was to compare the situation in LFA in both countries and to evaluate the impact of different eligibility criteria on the farm level in the Czech Republic and Slovakia in the previous programming period.

Methodology

The situation concerning LFA measure was compared in both countries. For evaluation of the impact of LFA measures in the Czech and Slovakia the following indicators were used:

- the share of applicants (that received subsidies) in the total number of holdings farming on the land [7,8, the Land Parcel Identification System (LPIS)],
- the share of land which received subsidies from the agricultural land fund in LFA [7,8, the agricultural land fund according to the real estate cadastre],
- the development of the share of unused agricultural land [9] and weighted average by districts that represent individual LFA types (more than 50% of agricultural land of a district is integrated into the LFA type); in Slovakia the mentioned indicator was calculated on the basis of individual data of holdings from the Land Parcel Identification System,
- the share of grasslands in agricultural land according to LPIS was compared in the Czech Republic and Slovakia.
- changes of livestock numbers, average animal density per hectare of agricultural land, share of dairy cows and suckler cows (the average of districts that represent individual LFA types) in the Czech Republic according to the results of The Farm Structure Survey of the Czech Statistical Office in 2000 and 2005, in Slovakia from Information Sheets 2000 and 2005 of The Central Database of the Ministry of Agriculture of the Slovak Republic (CD MA SR) and the Research Institute of Agricultural and Food Economics (RIAFE).
- the level of employment in agriculture in both countries is expressed by the number of annual work units (AWU) calculated per 100 hectares of agricultural land from records of the standardized output of the Farm Accountancy Data Network (FADN) CR and CD MA SR, RIAFE in the period 2003-2006,
- the contribution of LFA payments to the economic viability of agricultural holdings in LFA as expressed by the share of LFA payments in gross value added and total operating subsidies; data of the standardized FADN output was used according to the DG Agri database; the level of gross value added calculated per hectare of agricultural land and per annual work unit in both countries and selected EU countries with a substantial share of LFA on its territory.

Results and Discussion

The current situation in the Slovak Republic

After the SR joined the European Union, the approach determining the eligibility of land for less-favoured area payments changed. Before accession, less-favoured areas were determined pursuant to an official land price, after accession the criteria were adapted to European standards. The total acreage of LFA reached 1 225 thousand hectares of land, i.e. 50% of the agricultural land of Slovakia. The following municipalities were integrated into mountain areas: municipalities with an altitude above 600 meters, municipalities with average slope greater than 20% and municipalities with both altitude above 500 meters and slope greater than 15%. Their acreage was 487 thousand hectares, i.e. 20 % of the agricultural land fund.

"other" less-favoured areas were determined by yield as below 80 % of the national average and by two demographic criteria: population density of less than 72 inhabitants per square kilometre and the share of agricultural workers in the economically active population of above 12%. The acreage of agricultural land of municipalities integrated into "other" less-favoured areas was 391 thousand hectares; which means 16% of the agricultural land fund.

348 thousand hectares of agricultural land were integrated into areas with specific handicaps (14% of the agricultural land fund) meeting criteria such as water-logged soils, extreme dry soils, skeletal soil areas, flysh soil areas, low productive soil areas and intermediary soil areas.

LFA Payments ranged from 25 € to 127 € per hectare of agricultural land. The basic criteria at the farm level are: to farm at least 1 hectare of agricultural land in LFA, to perform agricultural activities for a minimum of 5 years from the first payment and to respect conditions of good farming practises on the whole acreage of the holding. In contrast to the Czech Republic, payments are provided for every hectare of agricultural land of LFA holdings. Degresivity of payments by farm size is not applied.

Compensatory payments are defined for 18 LFA types (Table 1).

Table 1. LFA payments according to the type of handicap in Slovakia (€/ha of agricultural land)

LFA type	Payment rate	LFA type	Payment rate	LFA type	Payment rate
H1[1]	127	O1/1[2]	88	S1[3]	38
H2	115	O1/2	68	S2	25
H3	104	O1/3	57	S3	53
H4	86	O2	40	S4	36
		O3	31	S5	55
		O4/1	68	S6	40
		O4/2[4]	74		
		O4/3[4]	54		

Source: RDP SR, MA SR,2007
[1] Mountain areas, [2] Other less-favoured areas, [3] Areas with specific handicaps

The current situation in the Czech Republic

After the CR joint the European Union LFA delimitation was adapted to EU rules. The total LFA share amounted to 50.1% of the agricultural land in the period of 2004-2006. 14.6 % of the agricultural land was integrated into mountain areas. Mountain areas were qualified as areas with an altitude higher or equal to 600 meters or as combination of altitude between 500 and 600 meters and slope of above 7° on more than 50% of the agricultural land. The share of "other" less-favoured areas amounted to 28.5% of the agricultural land and

they were qualified as the areas with yields of less than 80 % of the national average and also with a population density of below 75 inhabitants per square kilometre and share of agricultural workers in the economically active population of 8% (double the national average). 7% of the land agricultural fund was integrated into areas with specific handicaps. This means submontane areas and boundary areas of Sudeten not fulfilling the demographic criteria but with low quality of land (yields of less than 80% of the national average).

Since 2007 the size of LFA has been adjusted but the methodology of determination has remained the same except that the criterion concerning the slope of area was adjusted - slope above 15 % on an area greater than 50% of the zone acreage. Currently 50.8% of the agricultural land is in LFA, of which 15.4% is in mountainous areas 28.5% in „other" less-favoured areas and 6.6% in areas with specific handicaps.

A farmer must commit to farm in LFA for at least five years. A minimum of 5 hectares of agricultural land has to be established for farm eligibility to LFA payments. Since 2007 it has been 1 hectare of grassland in LFA. Only holdings raising beef cattle, sheep, goats or horses (with a density of 0.2 livestock units per hectare of grassland to 1.5 livestock unit per hectare of managed agricultural land) are eligible for payments. Administration of payments was conditioned by the maintenance of "Good Agricultural and Environmental Conditions". An applicant is obliged to keep: a deadline for grassland mowing, rules of farming on slopes and storage of fertilizers and fertilization, of animal management. He is not allowed to plough up grassland and remove landscape elements (borders, terraces, alleys etc.). The degresivity of payments by farm size is not applied.

Payments are disbursed for hectare of grassland in LFA. Six various rates were established in € and converted into CZK using the exchange rate of a particular year (Table 2).

Table 2. LFA payments according to type of handicap in Czech (€/ha of grassland)

LFA type	Payment rate	LFA type	Payment rate	LFA type	Payment rate
H^{A1}	157	O^{A2}	117	S^{3}	114
H^{B}	134	O^{B}	94	S^{X}	91

Source: HRDP CR, MA CR, 2007
[1]Mountain areas [2]Other less-favoured areas [3]Areas with specific handicaps

Exploitation of the LFA measure in the Slovak Republic

The growing numbers of applicants for LFA payments indicate the successful utilisation of the measure. Out of the total LFA acreage (1 226 thousand hectares) payments were given to: 1 106 thousand hectares (90%) in 2004, 1 137 thousand hectares (91%) in 2005 and 1 153 thousand hectares (94%) in 2006. Utilization of the land integrated in LFA was accelerated by the financial resour-

ces from the European Agricultural Guidance and Guarantee Fund (EAGGF) in districts with the highest unemployment rate. Ownership arrangements and the integration of the mentioned land into the Land Parcel Identification System (LPIS) contributed to the measure of exploitation very significantly.

In the programming period 2004-2006 more than 236.2 mil. € LFA support was granted. The share of the LFA measure was 47% in the total budget of the Rural Development Plan of the SR 2004-2006. Grants were given to 3 192 applicants in 2004, 3 595 applicants in 2005 and 3 921 applicants in 2006.

Exploitation of the LFA measure in the Czech Republic

304.7 mil. € was allocated for the LFA measure in the programming period 2004-2006. The share in total sources of the Horizontal Rural Development Program of the Czech Republic was 45%. Before EU accession (in 2003), CZK 1.5 billion per annum was allocated for LFA payments, after EU accession the sum was increased to CZK 2.87 billion (in 2006)[23].

8 571 applicants requested LFA support in 2004 and 9 055 applicants (+6%) in 2006 (this represented 79% of all holdings farming on land with more than 5 hectares of agricultural land integrated into LFA). 721.3 thousand hectares were supported in 2004 and 721.8 thousand hectares were supported in 2006 (but this represented only 34% of the agricultural land in LFA).

Impact on environment - land use in the Slovak Republic

According to LPIS data in comparison to the pre- accession period the unmanaged (un-farmed) land decreased by 28% in mountainous areas, 39% in „other“ less-favoured areas, 40% in areas with specific handicaps and 58% in productive areas.

It is very notable that in LFA the share of permanent grasslands has decreased approximately by 2%. The permanent grasslands share in utilised agricultural area (UAA) is now 69% in mountain areas, 28% in „other“ less-favoured areas, 20% in specific handicap areas and only 1% in areas outside LFA. This means that some areas of permanent grassland are not able to compete with arable land plant production. One of reasons is the ongoing decline of the number of livestock (mainly of beef cattle).

Impact on environment - land use in the Czech Republic

According to the Farm Structure Survey of the Czech Statistical Office, in 2005 the acreage of unused agricultural land in districts with a dominance of areas with specific handicaps decreased by 71% compared to 2000 in mountainous areas; by 10%, in districts without LFA by 42%; but in districts with a dominance of „other“ LFA it increased by 2% in the same period.

23 Ministry of Agriculture of the Czech Republic: Annual evaluation reports on the Horizontal Rural Development Program in the Czech Republic.

The share of grassland in the utilised agricultural land increased significantly in LFA and in areas outside LFA it dropped. This development is not only due to LFA payments that have been provided (since 2001) exclusively for grassland but also due to the other instruments of the Horizontal Rural Development Program (support of grazing, sowing and maintenance of grassland). In mountainous areas the share of grassland in UAA was 70%, in „other" LFA 30%, in areas with specific handicaps 60% and out of LFA 7% at the end of the programming period 2004-2006.

Changes of production structure in the Slovak Republic

In 2005 the acreage of cereals decreased in mountainous areas by 12% and in areas with specific handicaps by 5% compared to 2000. Vice-versa, the acreage of cereals outside LFA increased (Table 3).

Table 3. The change of selected crop acreage 2005/2000 in Slovakia (2000=100%)

LFA type	Cereals	Oilseeds	Potatoes	Forage crops on arable land
Mountainous areas	78	154	37	92
Other less-favoured areas	107	131	65	77
Areas with specific handicaps	95	120	38	92
Out of LFA	102	107	103	81
SR total	101	118	53	86

Source: Information Sheets CD MA SR, RIAFE Bratislava

The importance of favourable oilseeds producer prices was revealed in all types of LFA. The acreage of oilseeds increased in particular in mountainous areas (by 54%). In the period under consideration production of potatoes moved to productive areas. However it is worth noting that the current potato area is the lowest in the last 100 years. The area of forage crops decreased in all types of LFA, mostly in „other" less favoured areas following a decrease in livestock numbers.

A decline in the number of animals was found generally in Slovakia and also in LFA. The highest drop was in the number of beef cattle was observed in „other" less-favoured areas. Only the number of suckler cows developed positively. In mountainous areas it increased by 25%. The number of sheep increased reasonably - in mountain areas by 16% and in „other"less-favoured areas by 11%. We can evaluate the increasing number of sheep and suckler cows as positive for countryside conservation. The number of sheep and suckler cows increased in Slovakia by 7% and 3% respectively (Table 4).

Table 4. The change in livestock numbers in Slovakia 2005/2000 (2000=100%)

LFA type	Cattle total	Diary cows	Suckler cows	Sheep
Mountainous areas	84	79	125	116
Other less-favoured areas	78	72	93	111
Areas with specific handicaps	88	80	98	86
Out of LFA	82	78	64	86
SR total	82	80	103	107

Source: Information Sheets CD MA SR, RIAFE Bratislava

As to the intensity of animal production, the Slovak Republic recorded very low indicators independently of whether LFA or non LFA areas. Among indicators expressing density of beef cattle there are minimal differences. The dairy cow breading values in LFAs more significantly copy those in the productive areas that are oriented on milk production. The numbers for suckler cows show the opposite. Suckler cow breading is concentrated in mountainous and „Other" LFA. As to sheep breading, the highest density (33 head per hectare) was recorded in the mountainous areas (Table 5).

Table 5. Indicators of animal production intensity in 2005 in Slovakia

LFA type	Density of cattle total in head per hectare of UAA	Head of cows in cattle total (%)		Density of sheep in head per hectare of UAA
		Diary cows	Suckler cows	
Mountainous areas	0.29	37	9	0.33
Other less-favoured areas	0.23	35	9	0.13
Areas with specific handicaps	0.25	36	7	0.08
Out of LFA	0.26	40	1	0.01
SR total	0.26	37	6	0.13

Source: Information Sheets CD MA SR, RIAFE Bratislava

Changes of the production structure in the Czech Republic

Comparison of the acreage of selected crops in 2005 as opposed to 2000 is presented in Table 6.

Table 6. The change of acreage of selected crops 2005/2000 in the CR (2000=100%)

LFA type	Cereals	Oilseeds	Potatoes	Forage crops on arable land
Mountainous areas	98	91	62	64
Other less-favoured areas	99	94	84	82
Areas with specific handicaps	101	95	55	59
Outside LFA	103	96	92	81
CR total	101	96	85	79

Source: Farm Structure Survey, CZSO 2005 and 2000

In mountainous areas a decrease of the cereals acreage was recorded, in the rest of CR there were no changes in practice. In 2005 as compared to 2000, oilseeds acreage reasonably decreased in contrast to Slovakia. However, it is worth noting that in years 2006 and 2007 it increased above the 2000 level again. The potato acreage decreased in the Czech Republic as well as in the Slovak Republic and its production moved away from LFAs. In mountainous areas and in the areas with specific handicaps the acreage of forage crops on arable land decreased very significantly. Only a moderate decrease was recorded outside LFA and in „other" LFA due to the higher density of dairy cows in these areas.

In the first half of 1990s livestock number (in particular beef cattle) decreased by approximately 20% per year. Since 2000 the decrease of livestock numbers has slowed down (Table 7).

Table 7. The change of livestock numbers in the Czech Republic 2005/2000 (2000=100%)

LFA type	Cattle total	Diary cows	Suckler cows	Sheep
Mountainous areas	100	82	139	165
Other less-favoured areas	93	90	154	204
Areas with specific handicaps	102	88	162	237
Outside LFA	85	85	145	198
CR total	91	88	152	196

Source: Farm Structure Survey, CZSO 2005 and 2000

From 2000 to 2005, the number of cattle decreased particular outside LFA. A considerable decrease in dairy cows was monitored in mountainous areas. The number of suckler cows increased in the Czech Republic by 52%, in areas with specific handicaps and „other" less-favoured areas particularly. The sheep number almost doubled, but the density of sheep remain still low (Table 8).

Table 8. Indicators of animal production intensity in 2005 in the Czech Republic

LFA type	Cattle total: in head per hectare of agriculture land	Head of cows in cattle total (%)		Sheep: in head per hectare of agriculture land
		Diary cows	Suckler cows	
Mountainous areas	0.46	18	27	0.11
Other less-favoured areas	0.52	31	8	0.04
Areas with specific handicaps	0.44	24	22	0.15
Outside LFA	0.27	34	6	0.02
CR total	0.40	31	10	0.04

Source: Farm Structure Survey, CZSO 2005 and 2000

Mountainous areas and areas with specific handicaps in the Czech Republic are characterized by the low intensity of animal production but the figures are better than in Slovakia. In the districts outside LFA the density of cattle is low and a third of this number consists of dairy cows. We can assume that as in Slovakia, in these areas animal production is specialized in milk production. The high share of suckler cows and higher sheep density in mountainous areas and areas with specific handicaps has had a positive environmental impact. In districts with prevailing „other" less-favoured areas, animal production has responded to the prevailing conditions in these areas, i.e. they respond to the relatively large role of labour in agriculture in the mentioned areas. In the Czech Republic as a whole labour demanding milk production is crucial in these conditions while sheep breading is of only low importance.

The impact on agricultural employment

In comparison with 1989 the number of workers in agriculture has decreased very dramatically in both countries due to the transformation of socialist holdings at the beginning of 1990s. However, the decrease continued over the next years due to the structural changes in crop production (towards less labour intensive plants) and the significant reduction of animal production. The decrease of agricultural workers has also continued after accession into the European Union. The trends in agricultural employment are presented in Figure 1.

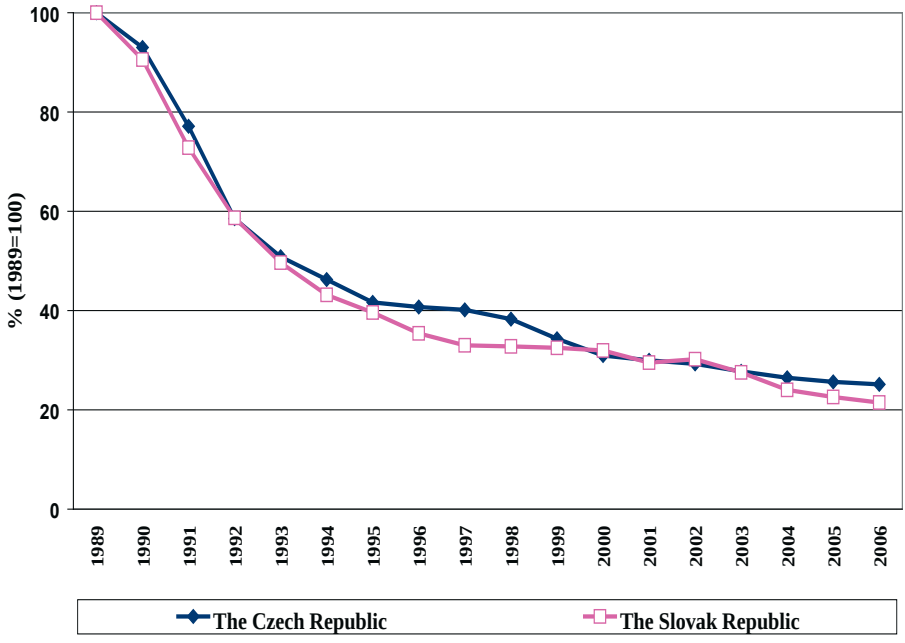

Figure 1. Trends in agricultural employment in the Czech and Slovak Republics
Source: Statistical office CR, SR

Employment according to LFA in the Slovak Republic

The research was carried out using the sample of holdings that returned Information Sheets during the period 2003-2006. The average change of utilised agricultural land and number of annual working units (AWU) and number of workers per 100 hectares of agricultural land were evaluated for all holdings classified according to LFA types. The results are presented in table 9.

Table 9. Agriculture employment in Slovakia in 2003-2006 according to LFA type

LFA type	Coefficient of growth 2003/06		Share 2006/2003		AWU per 100 ha UAA		
	AWU	UAA	AWU	UAA	2003	2006	2006/2003
Mountainous areas	0.903	0.931	73.0%	80.3%	2.93	2.66	90.9%
Other less-favoured areas	0.928	0.961	79.3%	88.5%	2.72	2.43	89.6%
Areas with specific handicaps	0.919	0.964	77.4%	89.5%	3.38	2.92	86.6%
Outside LFA	0.943	0.996	83.0%	98.8%	4.50	3.78	84.1%

Source: Information Sheets CD MA SR 2003-2006, RIAFE Bratislava

The biggest decrease of workers was monitored in holdings farming in mountainous areas (subjects farming in LFA), in holdings farming in areas with specific handicaps saw a moderate decrease of workers and in holdings situated in „other“ LFA areas and outside LFA saw the smallest decline in workers.

In comparison with 2003 the average number of workers per 100 hectares of UAA decreased the most significantly outside LFA and in „other“ less-favoured areas. The smallest decline of workers (calculated per 100 hectares of agricultural land) was found in mountainous areas. This might be a consequence of the decrease of the average acreage of UAA holdings mentioned (changes in leased land, better specification of the UAA acreage according to LPIS or the ongoing transformation of holdings).

Employment according to LFA in the Czech Republic

The research was carried out using a sample of holdings on the list of holdings held by the Farm Accountancy Data Network CR during the period 2003-2006. Holdings have been classified and aggregated in conformity with LFA classification from 2004. The results are presented in Table 10.

Table 10. Agriculture employment in the Czech Republic according to LFA type

LFA type	Coefficient of growth 2003/06		Share 2006/2003		AWU per 100 ha UAA		
	AWU	UAA	AWU	UAA	2003	2006	2006/2003
Mountainous areas	0.972	0.984	91.7%	95.4%	3.33	3.20	96.1%
Other less-favoured areas	0.957	0.995	87.8%	98.6%	4.00	3.56	89.0%
Areas with specific handicaps	0.985	0.980	95.7%	94.0%	2.75	2.80	101.8%
Outside LFA	0.961	0.997	88.6%	99.0%	3.97	3.55	89.4%

Source: FADN CR 2003-06

The number of workers mostly decreased in holdings in „other" LFA and outside LFA. The average number of AWU per 100 hectares of UAA also decreased in these holdings. Above all this was caused by the permanent decrease of the number of farm animals and high labour demanding dairy cow breading. The number of workers in holdings situated in areas with specific handicaps decreased slowly and as in Slovakia in the same period the average acreage of UAA decreased. In the Czech Republic areas with specific handicaps are characterized by the very small share of farmers in the rural working population (this can be seen also by a recalculation of AWU per hectare of UAA). The fact that the AWU per 100 hectares of UAA moderately increased (in farming holdings in areas with specific handicaps) signifies that due to agricultural support policy agricultural workers remain in this area. This is a positive effect of LFA payment targeting the objective - the sustainability of minimal agricultural activities required for the maintenance of countryside as an interesting tourist place.

The Impact on the economic results of farms

Data from the Farm Accountancy Data Network (FADN) was used. FADN is a survey, which is annually carried out by all Member States of the European Union. It is used as the basic source of comparable economic information on economic results and the economic situation of agricultural holdings. Selected indicators were used on the average of groups of holdings that had been aggregated according to LFA types. The contribution of LFA payments to the economic results of Czech and Slovak holdings was compared with neighbouring and other selected EU countries with a significant share of LFA in their country. The following indicators were compared: gross value added (GVA) per hectare of utilised agricultural land (UAA) and per AWU, the share of subsidies in this and the share of LFA payments in subsidies (Table 11 and Figure 2).

The Czech Republic and Slovakia also showed the same low level of gross value added per hectare of agricultural land and also per AWU. Low GVA

is created also by holdings in the areas that are not integrated into LFA. A significantly high level of GVA per hectare in LFA regions was registered in Germany, Austria, France and Spain but also in Poland and Slovenia. The same results were obtained also by the comparison of GVA per AWU except for Poland and Slovenia where a high number of workers per hectare of agricultural land prevails.

The low economic results for holdings in the Czech Republic and Slovakia (and e.g. in Lithuania – as a representative of the Baltic countries) mean they are more dependent upon subsidies. In the mountainous areas of the Czech Republic and Slovakia 70% of GVA per hectare is made up by current subsidies i.e. the biggest share among compared countries. The share of subsidies in GVA is high also in other than mountainous LFA. As to the structure of current subsidies, the high share of LFA payments in the total occurred in the examined EU-10 countries (except of Poland). It is biggest in the mountainous areas of Slovakia, also in mountainous areas of the CR, LFA of Lithuania, mountainous areas of Portugal, Slovenia and other than mountain areas of Slovakia. The figures above showed the substantial role of LFA payments in both countries (economic liability of LFA holdings depends on it). Tab.11 Gross value added according to LFA and contribution of LFA payments in the total in selected EU counties (€/ha).

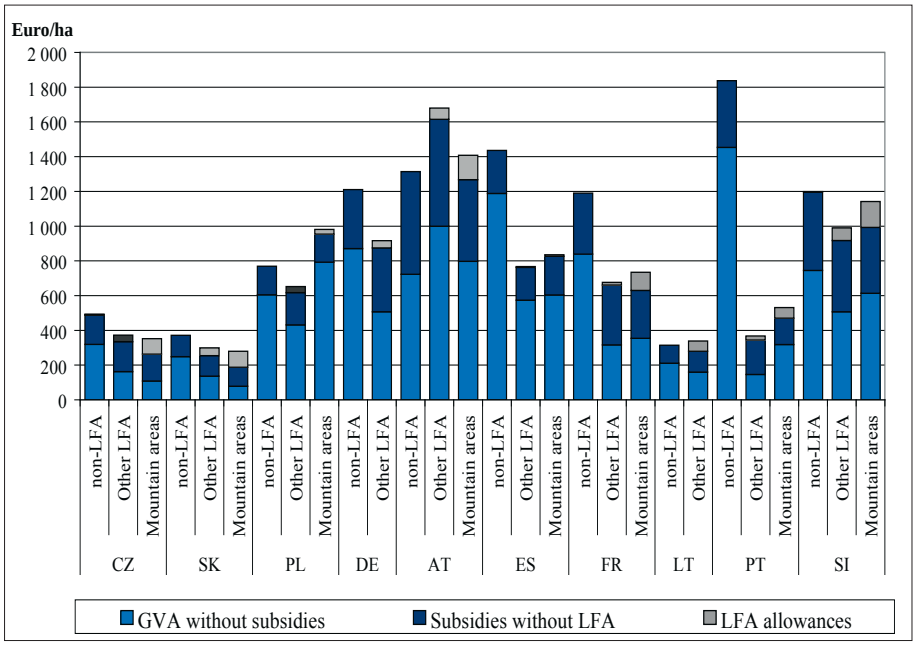

Figure 2. Comparison of level and composition of GVA per hectare of UAA
Source: Standardized output, FADN 2005, DG Agri 2008

Table 11. Gross value added according to LFA and contribution of LFA payments in the total in selected EU counties (€/ha)

Country	LFA type	GVA	Current subsidies	of which LFA payments	GVA	Current subsidies	In it LFA payments	Share of subsidies in GVA	Share of LFA in subsidies
		€/ha UAA			€/AWU			%	
CZ Czech	Outside LFA*	493	174	5	13 037	4 594	128	35,2	2,8
	Other LFA**	373	210	38	12 075	6 813	1 222	56,4	17,9
	Mountain areas	352	244	89	12 806	8 886	3 239	69,4	36,5
SK Slovakia	Outside LFA	372	123	0	8 793	2 906	0	33,0	0,0
	Other LFA**	299	163	45	9 840	5 364	1 467	54,5	27,3
	Mountain areas	280	202	92	8 673	6 264	2 853	72,2	45,5
PL Poland	Outside LFA	769	164	0	7 035	1 501	0	21,3	0,0
	Other LFA**	652	220	35	6 634	2 237	361	33,7	16,1
	Mountain areas	981	189	27	6 404	1 234	173	19,3	14,0
DE Germany	Outside LFA	1 210	339	0	39 803	11 131	0	28,0	0,0
	Other LFA**	916	409	41	35 690	15 950	1612	44,7	10,1
AT Austria	Outside LFA	1 314	591	0	34 510	15 515	0	45,0	0,0
	Other LFA**	1 680	680	65	27 736	11 230	1 065	40,5	9,5
	Mountain areas	1 408	611	140	27 747	12 032	2 757	43,4	22,9
ES Spain	Outside LFA	1 436	248	0	19 568	3 382	0	17,3	0,0
	Other LFA**	767	193	5	19 584	4 937	123	25,2	2,5
	Mountain areas	835	231	9	21 916	6 059	226	27,6	3,7
FR France	Outside LFA	1 190	351	0	40 122	11 823	1	29,5	0,0
	Other LFA**	676	360	15	34 953	18 611	770	53,2	4,1
	Mountain areas	734	380	104	29 741	15 405	4 197	51,8	27,2
LT Lithuania	Outside LFA	314	103	0	7 330	2 410	0	32,9	0,0
	Other LFA**	339	179	59	6 003	3 168	1039	52,8	32,8
PT Portugal	Outside LFA	1 837	384	0	8 817	1 843	0	20,9	0,0
	Other LFA**	368	222	24	10 034	6 058	650	60,4	10,7
	Mountain areas	531	213	61	6 111	2 454	708	40,2	28,8
SI Slovenia	Outside LFA*	1 199	454	2	7 244	2 744	12	37,9	0,4
	Other LFA**	990	483	73	5 375	2 622	398	48,8	15,2
	Mountain areas	1 142	529	149	7 088	3 286	924	46,4	28,1

Source: Standard results of FADN 2005. DG Agri, 2008, * Farms that represent outside LFA can have part of their acreage in LFA, ** Other LFA is LFA apart from mountain,

Conclusions

The background, criteria and scope of spatial definition of LFA are very similar in both countries. Less-favoured areas covered half of the agricultural land. The criteria for the delimitation of mountainous areas and "other" less-favoured areas are practically identical, areas with specific handicaps express the particularities of each country and they are not comparable. A large amount of financial resources (in term of Rural Development Plans in 2004-2006) was allocated for this measure in both countries (in Slovakia 47% in the Czech Republic 45%).

According to a comparison of the share of LFA payments with respect to their impact on the economic results of farms in both countries, with selected EU countries, it is clear that the Czech Republic and Slovakia both show low GVA per hectare of agricultural land and AWU not only in LFA areas but also in non LFA areas. This bears evidence to the fact that farmers are significantly dependent on subsidies in both countries. Their importance is almost irreplaceable.

Farm eligibility criteria are entirely different. In Slovakia the whole agricultural land of a holding is eligible for payment whereas in the Czech Republic it is only the area of grassland. Only the holdings breading cattle, sheep or goats with a given density per hectare are eligible in Czech. In Slovakia the eligible area amounted to 94% of the agricultural land in LFA, whilst in the Czech Republic it is only 34%.

In Slovakia the payments are more differentiated (18 rates) than in the Czech Republic where only eight rates exist. The average payments per hectare of agricultural land of holdings in LFA, are not very different in both countries (in mountainous areas in Slovakia 92 € and in the CR 89 €, in other than mountain areas in Slovakia 45 € and in the CR 38 €). But the Slovak system distributes payments more equably and primarily is aimed at the compensation for natural handicaps. The Czech system distributes payments among holdings primarily dependant on the share of grasslands and addresses objectives concerning protection from erosion.

This difference manifested itself especially on the development of the grassland acreage: in the Czech Republic the share of grasslands in LFA has increased in spite of the decrease in herbivorous animals, whilst in Slovakia the share of grasslands decreased. According to the results it is possible to deduce that the LFA payment system in the CR helps the objectives (to promote the use of grassland and to prevent erosion) to be met. Despite the differences in the area eligible for payments, the share of grasslands was 70% in both countries and in "other" LFA it is almost the same (CR 30%, SR 28%).In areas outside LFA in both countries, the share of grassland in agricultural land is very low.

The acreage of unused land has decreased in both countries, which indicates the favourable impact of LFA support and also of the other support of the Common Agricultural Policy. It is assumed that a decrease of unused agricultural land acreage is affected also by LFA payments. The income from LFA payments in the Czech Republic is lower than in Slovakia due to the smaller acreage of the eligible area (grasslands) in "other" LFA. Pursuant to this fact it is possible to explain the moderate increase of the idle land acreage in "other" LFA in the Czech Republic.

A decrease of cereals area primarily in mountainous areas can be evaluated favourably in the light of environmental protection. The same impact can be seen in the fact that potato growing has moved from LFA areas in both countries. In the CR in comparison with Slovakia, the area of forage crops on arable land has decreased more significantly in mountainous areas and in areas with specific handicaps. It can be assumed that in the Czech Republic forage crops on arable land have been substituted by grassland due to the LFA payment system.

The decrease in the number of farm animals could lead to insufficient maintenance of the countryside in LFA. In Slovakia, the decrease in livestock numbers and the low livestock density per hectare of agricultural land are critical. Up to 2005, in Slovakia the number of beef cattle decreased in all areas while in the Czech Republic there was more stability in LFA. This was caused first of all by the strict farm eligibility LFA criteria.

A decrease of agriculture labour is characteristic for both countries. The most important contributing factors are the transformation of farms, changes in the production structure and the decline in animal production. Subsidies for less-favoured areas in both countries delayed the labour input decline in relation to the agricultural land used. LFA payments play a very important role in the stabilization rural population.

The contribution of EU funds to LFA financial payments has resulted positively in the decrease of unused agricultural land and delayed the labour input decline in both countries. The differences of farm eligibility criteria have lead to different trends of grassland acreage and livestock number.

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