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## The characteristics of small farms and their development opportunities in Hungary

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**Abstract:** *Small farms amount the largest group of agricultural holdings in Hungary, however their number significantly decreased by 36.4 per cent between 2005 and 2013. These predominantly subsistence or semi-subsistence farms are playing an important role by supplementing the rural household incomes and also producing the significant part of agricultural production. In our research, we examined the situation and future prospects of these small self-employed farms which are typically not engaged in market production and are not professional. The aim of the research was to present the major economic and social parameters of small farms, to identify their types, to border the circle of farms develop to market-oriented entities as well as to draw up development policy proposals.*

**Keywords:** *semi-subsistence farm, part-time farm, supplementary income, household consumption.*

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The number of small farms and their weight in agricultural production have decreased significantly due to the concentration processes taking place across Europe in recent decades, however, their role is very important in the protection of the natural landscape and in retaining the rural population. Small farms cannot be considered as a single and homogenous group due to significant differences and fragmentation. This fragmentation originates from the functional complexity of small-scale farming, while production targets, market embeddedness, agro-economic and sociological characteristics, and the nature of primary jobs may result in differences among small farms.

The literature distinguishes basically self-sufficient, occasionally producing goods to market, and specialised commodity-producing farms, based on the function of production activity (Fertő, 1999). Next to the small farms connected to local markets can be identified another group of small farms co-operating with large agricultural holdings and specialising in a determined activity based on the connection to the market (Juhász, 1998). Small farms in the European Union (EU) may serve social, self-care or hobby targets based on another classification, however, their economic function has continuously moderated due to the current status of agricultural development, its mechanisation and technological conditions (Burgerné, 2015).

Davidova *et al.* (2010) identified six groups of small farms based on a cluster analysis that covered five EU Member States<sup>1</sup>. Main aim of *low income part-time farmers* is to meet the food consumption needs of the household. Hobby farms belong to this category, where production activities are not compulsory but a consequence of lifestyle choices. A further group of small farms is the commercially oriented market constrained households and the commercially oriented market unconstrained households where the technological background of production and the production structure are similar. However, opportunities (land which can be involved and capital) for increasing the production volume and preferences are significantly different. Another group of small farms is the high-income part-time farms and commercially oriented externally constrained households. High-income part-time farms have an off-farm job which provides income that could be used on the farm. Finally, Davidova *et al.* (2010) also separated the subsistence oriented low-income households, majority of them are forced farms under the poverty line, have only limited production and have limited ability to increase.

Small-scale farms can be distinguished and thus examined statistically based on three different criteria. The criteria are as follows: the physical parameters of farms (utilised agricultural area, number of livestock or inputs used e.g. labour); the economic size of farms in terms of standard output; and the ratio of market participation (Davidova *et al.*, 2010; EU, 2013). In our opinion, eco-

<sup>1</sup> Bulgaria, Romania, Hungary, Poland, Slovenia.

conomic size is the most suitable criterion for the identification of small farms in Hungary dealt with in this paper. In our research we considered small farms which do not reach EUR 4000 standard output (SO) as well as their leaders as small farm producers.

Although this group of farmers have the fastest decline within the whole group of farmers regards their number, in terms of longer trends, small farms in Hungary will play a key role not only in the income supplementation of rural households, but by the production of a significant part of agricultural production. In our research, we examined the situation and future prospects of these small, self-employed farms which are typically not engaged in market production and are not professional. We sought to answer to what economic parameters are currently characteristic of this group of farmers, are there any foreign examples to present their survival, which are the advantages and disadvantages of this production method compared to circle of farmers from the larger size category and, finally, what proportion of this group of farmers may be the subject of support programmes aimed to help them to become market-oriented entities in the near future.

Based on the available statistical data and different analysis connected to this topic, we draw up the following research hypotheses: (H1): Hungarian small farms play a key role in farmers' income supplementation and they have bigger weight in it compared to the other EU Member States that have more developed farm structures; (H2): The management of the small farms is basically determined by the nature of the economic activity and employment status of the farm leader; and (H3): Small farms did not typically have access to the rural development subsidies following Hungary's accession to the EU in 2004.

## **Methodology**

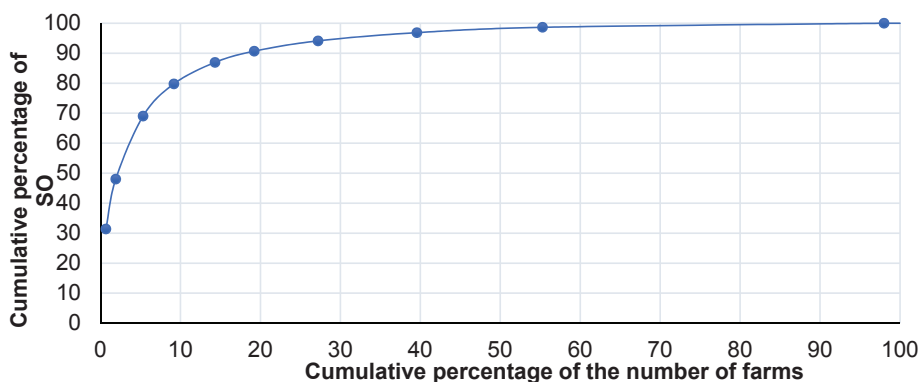
Our research was based on three information databases. On the one hand, we used the general agricultural census (2010) from the Hungarian Central Statistical Office, which provides a complete and detailed sociological background of all agricultural holdings in Hungary (from their size, structure and market orientation). In addition, our research was based on the representative survey in 2013 of the Farm Accountancy Data Network (FADN) database, which examined the small farms between EUR 2000–4000 Standard Output (SO). The third source of our research data was structured in-depth interviews, which were made among small farmers in three NUTS 3 counties (Somogy, Tolna and Heves) of the country. We used descriptive methodology and simple statistical analysis as well as basic cost-income indicators to characterise the various types of farms. We carried out an analysis of documents of support programmes as well as tax and other legislation to present and evaluate the tools available for the facilitation and development of small farms.

### *The role of agricultural small farms in the EU and in Hungary*

In this chapter we examined the economic importance of small-scale agricultural farms in the EU Member States, their main economic indicators and their role in income generation, to check our first hypothesis based on statistical data.

Based on the data from the complete agricultural census in 2010, agriculture in the EU is increasingly moving towards a dual farm structure: most of the commodities are produced by large farms using a higher share of agricultural land; on the other hand, the substantial number of semi-subsistence small farms producing goods for local markets are playing a fundamental role in caring for the natural landscape by keeping the land in cultivation and maintaining the rural population.

In the EU-28, altogether 12 million agricultural holdings were registered in 2010 from which standard output (SO) of 7.3 million farms (60 per cent) did not reach EUR 4000. It can be revealed based on the grouping according to the SO that 5 per cent of the EU's strongest holdings produced 70 per cent of the gross production value in 2010, 20 per cent produced 90 per cent and 40 per cent produced 97 per cent. A further 60 per cent of the farms – those under EUR 4000 SO – produced only little more than 3 per cent of the gross production value in 2010 (Figure 1).



**Figure 1. The concentration of the standard output of the agriculture in the EU-27, 2010**

Data source: Eurostat, 2010.

A high proportion of farms under EUR 4000 SO occur in two groups of EU Member States according to the data. One group consists of the Mediterranean countries (Greece, Italy, Spain, Portugal) and the other group includes

Bulgaria, Croatia, Poland, Romania and Slovenia among the former socialist countries. Half of the farms or two thirds belong to the category under EUR 4000 SO on average in these countries. The proportion of small farms was higher than the average in Hungary, exceeding 80 per cent. The farm structure of Bulgaria and Romania was characterised by a higher share of small farms compared to Hungary (Table 1). Among the two groups of countries characterised by the predominance of small farms, there are minor differences in accordance to the production structure, but the purpose of the agricultural activities is nearly the same.

**Table 1. Main data and proportion of farms producing less than EUR 4000 SO in the examined countries, 2010**

Country	Number of farms		Agricultural workforce		Agricultural area		Livestock (LU)		Production value		Subsistence farms <sup>a)</sup>	
	thousand	%	Thousand AWU	%	thousand ha	%	thousand LU	%	million EUR	%	thousand	%
Greece	382	52.8	91	21.2	516	10.0	99	4.1	651	9.5	119	99.8
Italy	782	48.3	173	18.1	1,103	8.6	34	0.3	1,277	2.6	484	75.0
Spain	392	39.6	144	16.2	1,961	8.3	103	0.7	701	2.1	2	53.1
Portugal	191	62.6	171	47.2	421	11.5	99	4.5	328	7.1	51	88.6
Hungary	470	81.4	229	54.1	312	6.7	328	13.2	525	10.0	412	90.9
Bulgaria	315	84.9	270	66.3	263	5.9	337	29.3	386	15.2	173	97.6
Croatia	141	60.5	64	34.5	197	15.0	139	13.6	240	11.4	85	74.9
Poland	776	51.5	614	32.4	2,156	14.9	321	3.1	1,314	6.9	342	66.9
Romania	3,419	88.6	1,043	64.7	4,272	32.1	1,963	36.1	3,524	33.8	3,243	90.3
Slovenia	33	44.7	20	26.2	73	15.0	30	5.9	71	7.7	30	68.0

**Note:** a) The number and proportion of subsistence farms under EUR 4000 SO compared to the country's farms producing goods for their own consumption. The farm produces for own consumption if more than 50 per cent of the products produced are consumed by the owner and his/her family.

**Data source:** Eurostat, 2010.

In terms of labour use, small farms have the greatest significance in the analysed group of countries<sup>2</sup>. Among the Member States characterised by the predominance of small farms, in 2010 agricultural labour contracting was the highest in Romania and Bulgaria where two-thirds of the total agricultural labour use was forced to the small farms. In Hungary, as in Portugal, half of the sectorial labour use was connected to the small farms producing less than EUR 4000 SO. Small farms accounted for between 16 and 35 per cent the agricultural work in the other countries examined.

Small farms cultivate only 8-15 per cent of the agricultural land (typically 1-2 hectares) in the group of countries examined. A much higher share was found in Romania where in 2010 one third of the total utilised agricultural

<sup>2</sup> In order to measure the comparability of the agricultural work, annual work unit (AWU) is used which corresponds to the work performed by one person who is occupied on an agricultural holding on a full-time basis. 1,800 hours are taken to be the minimum annual working hours: equivalent to 225 working days of eight hours each based on the EU's recommendation.

area was connected to the small-scale farms. A negligible share of the livestock was kept by small farms in the majority of countries examined. There are only four countries where a higher share of small farms is considered: in Hungary and Croatia 13-14 per cent, in Bulgaria and Romania 30-36 per cent.

There are huge differences between the Mediterranean and post-communist countries in the land use and production structure due to the climate, habitat and economic history heritage. While in the Mediterranean countries, slightly more than one third of farms have agricultural land, in the former socialist countries at least two thirds of the farms own land. A higher proportion of small farms (14 per cent) set aside the land in the southern Member States and the share of the area set aside is higher (14 per cent) than in the former socialist countries (7 per cent). Kitchen garden was more common in the former socialist countries than in the Mediterranean countries in terms of the production structure but plantations were typical in all countries studied.

Our research examined the relationship between the yearly income poverty thresholds<sup>3</sup> published by EUROSTAT and the production value produced by the small farms to evaluate the importance of them in the income generation. There is a significant difference between the Mediterranean countries and the former socialist countries, characterised by the predominance of small farms based on the poverty thresholds. The value produced by the smallest farms in the Mediterranean countries covers at most only one third of a person's livelihood at the lowest level while its value is two thirds in the majority of the former socialist countries (excepted Croatia and Slovenia) (Table 2).

**Table 2. Connection between the poverty thresholds and SO produced by the smallest farms in some countries, 2010**

Country	Threshold of income poverty EUR thousand	Average SO per farm EUR thousand	Output of farm as a percentage of the poverty line
Greece	7,178	1,705	23.8
Italy	9,562	1,633	17.1
Spain	8,763	1,788	20.4
Portugal	5,207	1,716	33.0
Hungary	2,544	1,118	43.9
Bulgaria	1,810	1,226	67.7
Croatia	3,486	1,704	48.9
Poland	2,643	1,694	64.1
Romania	1,222	1,031	84.4
Slovenia	7,042	2,121	30.1

Data source: Eurostat, 2010.

The importance of small-scale farming by income generation is dominant especially in Portugal among the Mediterranean countries, where the farms belonging to the smallest economic size group produced one third of the poverty threshold on average in 2010. The smallest farms are able to contribute to the

<sup>3</sup> EUROSTAT methodology defines the income poverty threshold as 60 per cent of the median income.

livelihood especially in Romania among the former socialist countries, where 85 per cent of the poverty line was produced by small farms. Small farms in Bulgaria and Poland produced two thirds of the necessary amount of living. Small farms in Croatia produced roughly half of the necessary amount and the situation is similar in Hungary.

Based on our analysis it can be stated that farms producing less than EUR 4000 SO are not able to ensure a secure livelihood and they only provide an additional income for the farmers. However, this income supplement is much higher in the post-socialist countries than in the other EU Member States. In Western and Southern Europe, the maintenance of farms under EUR 4000 SO has a complementary manner and may be connected to hobby farming. Agricultural activity can be considered as a crucial element of a household's income which is difficult to replace through other activities in Central and South-Eastern Europe, including Hungary. These results are consistent with the finding of Davidova et al. (2009). Based on these statements, products produced by small farms have different functions in the livelihood of rural households per Member States and they contribute to the household income in different ways in this context.

### *Cost-income relationships in the management of small farms*

We used a small-scale sample with 300 elements (farms in this case) from the FADN survey in 2013 for the purpose of examining the second hypothesis (H2) of our research. This research tries to answer the question what cost-income relationships are characteristics in small-scale farms between EUR 2000–4000 Standard Output (SO) economic size compared to the larger farms having a bigger farm size. Finally, we examine what does farming mean of small-scale households in terms of income.

The mentioned 300 small farms from the FADN sample between EUR 2000–4000 SO and using 1.86 hectares of land (mostly arable land) on average, mainly differ from the farms with larger farm size in relation to the animal husbandry and the labour use. Small farms keep 60 per cent more animal per unit area and use six times more labour compared to the commodity producer farms over EUR 8000 SO. This indicates that they deal with labour intensive activities and they replace the missing devices with additional work (Table 3).

Analysing cost-income relationships of farms according to accounting principles, it can be stated that the small farms operate with higher asset and labour use, and higher production value and expenses, but their labour, capital and cost efficiency as well as rate of profit are much lower. They do not find profit maximisation or profitability as the most important aims during their production. Their motivation is to ensure self-sufficiency and to satisfy the consumption needs of the households.

**Table 3. The main indicators of farms with different economic sizes (2013)**

Denomination	Unit	Size 2	Size 3	Size 4
		EUR 2000– 4000 SO	EUR 4000– 8000 SO	above EUR 8000 SO
Agricultural area	hectare/farm	1.86	6.83	66.91
Average labour use	AWU/farm	0.35	0.51	2.14
Labour force	AWU/hectare	0.19	0.07	0.03
Livestock/labour use	livestock/AWU	2.56	2.44	8.93
Livestock/area	livestock/hectare UAA	0.48	0.18	0.29
Total assets	thousand HUF/hectare UAA	1,873.06	1,383.83	1,080.82
Gross investment	thousand HUF/hectare UAA	59.30	35.78	100.85
Net sales	thousand HUF/hectare UAA	555.35	307.19	454.34
Gross production value of agriculture	thousand HUF/hectare UAA	694.27	444.89	604.91
Gross production value of agriculture	thousand HUF/AWU	3,730.44	6,000.44	18,931.97
Material costs	thousand HUF/hectare UAA	399.55	223.82	362.49
Operating expenses in agriculture	thousand HUF/hectare UAA	613.94	351.05	489.87
Result before tax	thousand HUF/hectare UAA	80.11	93.60	112.19
Result before tax	thousand HUF/AWU	430.44	1,262.42	3,511.10
Return on total output	per cent	11.54	21.04	18.55

**Note:** UAA: utilised agricultural area.

**Data source:** AKI FADN Department, 2013.

In essence, this is also confirmed by the analysis of income data of small-scale households. Agricultural activity plays a relatively small role in the life of the affected households according to this analysis. It provides only 8 or 10 per cent of their income on average while it is able to generate one third of the food consumption (Table 4). All the while that the output per farm amounts to more than HUF 1 million, however, the income only amounts to HUF 100-200 thousand.

**Table 4. Distribution (per cent) of net income of rural households belonging to economic size 2 by the type of farming (2013)**

Denomination	Sum	Arable crop production	Livestock production	Mixed farms
Profit after taxes	8.01	13.54	13.58	-9.70
Income from self-employment	4.95	4.07	5.18	2.35
Income from real estate and capital utilisation	0.85	3.02	0.28	0.09
Income from agricultural employee work	6.78	9.41	7.54	15.03
Income from employee work outside the agriculture	50.6	39.3	40.7	67.3
Pension	23.1	23.8	26.9	16.6
Social benefits	3.18	4.43	3.81	7.25
Other income	2.58	2.48	2.07	1.09
Proportion of money spent on food (gross) and net income	27.9	27.2	28.0	40.7

**Data source:** AKI FADN Department, 2013.

The management features and income structure of the Hungarian small farms are mainly determined by the employment status/economic activity of the farm leader based on our research. Among the five group<sup>4</sup> formed on the basis of their economic activity, entrepreneurs predominantly deal with animal husbandry, agricultural employees and people living from social benefits rather operate a mixed farm, pensioners typically deal with animal husbandry or crop production while the non-agricultural workers might be classified into all three types of farming almost proportionally (Table 5).

**Table 5. Main operational indicators based on the breakdown of other income types, 2013**

Denomination	Unit	Self-employed	Agricultural employee	Non-agricultural worker	Pensioner	Living from social benefits
Number of farms in the sample	farm	4,144	4,745	34,567	24,198	2,471
from this:						
crop producers	per cent	15.03	25.31	25.03	36.82	25.66
animal husbandry	per cent	74.83	11.62	39.22	47.70	9.53
mixed farms	per cent	10.14	63.07	35.74	15.48	64.81
Average number of households	head/farm	2.80	2.32	2.89	2.02	2.11
Average age of the farm leader	year	41.86	40.30	44.95	67.44	55.88
Qualification of the farm leaders						
elementary	per cent	7.35	2.54	8.60	24.64	18.27
secondary	per cent	92.65	83.84	76.57	68.29	76.85
graduate	per cent	0.00	13.61	14.83	7.08	4.88
Agricultural area	hectare/farm	1.35	2.00	1.66	2.05	2.18
Average labour use	AWU/farm	0.29	0.41	0.29	0.37	0.37
Livestock/land area	LU/hectare	0.37	0.73	0.50	0.42	0.67
Total assets	thousand HUF/hectare	4,085.79	2,466.53	1,828.76	1,716.35	1,077.16
Total assets without the value of land and animals	thousand HUF/hectare	3,365.97	1,529.72	1,027.91	964.08	173.92
Gross investment	thousand HUF/hectare	2.68	183.52	85.97	25.04	19.11
Gross production value in agriculture	thousand HUF/hectare	1,204.09	574.68	736.65	643.60	495.79

Data source: AKI FADN Department.

<sup>4</sup> Self-employed entrepreneurs, agricultural employees, non-agricultural employees, pensioners, people living from social benefits

Based on the analysis of cost-income data it can be stated that the full-time entrepreneurs produce more significant income with high asset tying and expenses, with efficient work in a profit-oriented way, while agricultural and non-agricultural workers, pensioners and people living from social benefits produce lower production value and income with lower expenses and asset tying and with less efficient labour use. The socio-demographic background of farm leaders also shows notable differences in the five groups created on the basis of economic activity: people engaged in agricultural activity as an entrepreneur are in the most disadvantaged situation. Their average age is just 42 years and the majority of them (92.6 per cent) have at least secondary education. The socio-demographic background is the worst among those people who are living from social benefits and are the most indigent from additional revenues.

Based on the analysis of the FADN data, it can be stated that the importance of agricultural activities in the accounting sense is much higher in the life of households engaged in it, although it has only a supplementary role compared to the other income sources. Those households which receive social benefits or pensions, and without agricultural activity, would have had 30 per cent lower income which is very difficult to obtain from other activities (especially in the disadvantaged rural microregions). Agricultural activity is very important for the Hungarian small-scale farms, not only its value-adding (or wealth-generating) role in the moral sense (people are participating in shaping their income, not only others deciding the level of their income for them; they are spending their days actively), but it is essential from the subsistence and income points of view.

### *Support tools for small farms*

There are many interventions that can help the activities of Hungarian agricultural small-scale farms. From these it is important to mention fiscal policy instruments that directly affect the circle of small farmers, the EU-funded subsidies for small farms to become market-oriented entities and furthermore those labour market and social policy programmes containing agricultural elements whose primary objectives are to promote the livelihood and the labour market reintegration of disadvantaged members of the rural population.

Those Hungarian farmers whose annual revenue from primary production activities does not exceed HUF 600 thousand do not have to prepare a tax return and pay tax on revenue. There are further personal income tax benefits affecting primary producers in the case of those who select an itemised cost report or choose a 10 per cent cost ratio. Based on the amount of tax from their income from these activities they are entitled to claim (or use) farmers' tax allowance (maximum HUF 100 thousand). In addition to the personal income tax contributions, small farmers enjoy contribution allowances as well.

Small farms typically did not have access to investment subsidies for technological development from the rural development subsidies of the EU (funded from the EAGGF<sup>5</sup> before 2007, and since 2007 funded in the frame of the EAFRD) due to their (farm or economic) size. Therefore, the EU tries to help with targeted rural development measures within the framework of Pillar II of the Common Agricultural Policy for the development of this farm group and for them to become market-oriented entities.

Following Hungary's accession to the EU, a measure named 'Support for semi-subsistence farms undergoing restructuring' was launched from the EAGGF funds under the National Rural Development Plan 2004-2006, which gave support for small farms between ESU 2-5 economic size. The annual amount of subsidy was equivalent to EUR 1000. Only 1,140 applications were submitted instead of the planned 12 thousand (Respect, 2009). The reasons for the lack of applications were disproportions between the complex, performance-based eligibility criteria (appropriate farm size, secondary vocational education as well as 50 per cent performance increase be achieved in the fifth year of the support) and the low amount of the subsidy based on the evaluators' opinion. This measure was part of the national rural development programme in the period 2007-2013; however, the measure was not finally launched within the framework of the New Hungary Rural Development Programme.

EAFRD regulation 1305/2013/EU stated that in the 2014-2020 programming period the development of potentially economically viable small farms should be especially encouraged. The sub-measure called '6.3. Support for the development of small farms' in the Rural Development Programme offered a remarkable subsidy for small-scale farmers in Hungary in this planning period. The measure aimed firstly to strengthen those farms that are producing goods partly to market, that do not yet ensure a secure level of livelihood but have ability to develop (economic size EUR 3000-6000 SO) and, secondly, aimed to cover a secure livelihood at least for one person. In addition, other supports (or sub-measures) are available for small farms within the Rural Development Programme such as '6.2.1. Support to launch non-agricultural activities' and '6.4.1. Development of non-agricultural activities'.

Small farmers may receive support from the EAGGF in addition to the EAFRD through the small farmers support scheme, which is a substitute flat-rate subsidy of the single area payment scheme. This scheme was set up as an alternative to direct payments for those farmers cultivating a smaller area and offers a transparent and predictable form of subsidy with less bureaucracy. The support rate is EUR 500 (per year) at least and EUR 1250 per year at most. Simplified support for small farms under EUR 4000 SO may result in clear income growth by each of them and may increase the single area payment per farm nearly two-fold.

<sup>5</sup> European Agricultural Guidance and Guarantee Fund

**Table 6. Main features of social policy and labour market programmes containing agricultural elements**

Denomination	Start date	Geographical area	Source	Results, main impacts
Social land programme	1992	The most disadvantaged regions	Governmental support	Seasonal supplementary income; accumulation of knowledge and experience are directly usable in agricultural production.
Support for entrepreneurship	2007	National	Governmental support	To become self-employed (90 per cent). Temporary employment opportunities; accumulation of knowledge and experience that are directly usable in agricultural production.
Life changing – Life shaping programme	2008	Southern Transdanubian region	Governmental support	Contribution to meeting domestic consumption needs.
Backyard programme	2013	National	Governmental support	Contribution to meeting domestic consumption needs.
‘All the children live in well’ Foundation	2011	National	Private capital; additional governmental support	Contribution to meeting domestic consumption needs.
‘Kiút-program’	2009	Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg counties, Budapest	Private capital; EU support; additional governmental support	Development of sustainable businesses in the long term for half of the customers.
‘Nyúl-unk a munkáért’ programme	2011	Baranya, Tolna, Somogy counties	Private capital; additional governmental support	Build up a small-scale network able to produce goods to market.

Source: own compilation.

In addition to the supports appearing in the rural development programmes, a number of small-scale programmes have started in Hungary over the past two decades which were realised mostly from domestic, rarely from EU tender sources and partly through private investments (Table 6). The target groups of these programmes are those social groups which are living in rural areas, are permanently excluded from the labour market and have low income. Based on the philosophy of programmes wishing to catching up by promoting agricultural production, the active social policy or labour market policy instruments serve more effectively the convergence to the labour market compared to the passive services (e.g. unemployment benefits, regular social assistance), in view of the fact that they are half-way between employment forms subsidised centrally and the market-based work. It can be stated, based on the evaluation of the implemented programmes, that they have only modest impact on the reintegration of the labour market. However, they contribute to the increase in the level of income, and to raise the capital and knowledge to some degree without exception.

The small-scale and combined initiatives with other measures are mainly effective between the implemented programmes. Sustainable results can be de-

monstrated in programmes in which external operators were involved and in which the management was credible for the local community and provided all organisational and animation activities which reproduces the necessary financial resources for the continuous operation as far as possible (Czene et al., 2010). Additional effects such as participants becoming taxpayers, the mitigation of social costs at the municipal level and the reduction of the black economy, appear in those programmes where the opportunities to access the market and the production resources are established.

## Discussion

### *Several conclusions may be drawn about agricultural small farms:*

An analysis of the international trends has justified Hypothesis 1 that small farms with Standard Output (SO) below EUR 4000 in the EU Mediterranean Member States as well as in several post-socialist Member States (including Hungary) play significant roles in output, labour use and animal husbandry. There is a notable difference in comparison to Mediterranean Member States that – not independently of the low wage levels in Eastern Central Europe – income on small farms is of more significance in post-socialist countries (e.g. Poland, Hungary, Romania, Bulgaria, Croatia and Slovenia) than in the ‘old’ EU Member States. However, this income is still not enough to provide an independent existence to small farmers.

In Hungary, according to the analysis of certain production size categories from the economic point of view, farms with SO over EUR 8000 typically provide sufficient income for full-time activity, while below this size category agricultural production can only be carried out as a subsistence activity. This is especially true for small farms with SO below EUR 4000 which, in addition to meeting family consumption needs, start to have the realisation of a low level of income for subsistence as the primary aim of production.

In this article, Hypothesis 2 has also been confirmed, according to which the management of small farms is mainly determined by the economic activity / employment status of the farm leader. Full-time entrepreneurs earn significant income by carrying out profit-oriented, efficient work with high asset utilisation and inputs, while agricultural and non-agricultural employees, pensioners and people living on social allowances produce less and earn less income through lower asset utilisation, lower inputs and less efficient labour use.

Hypothesis 3 also seems to be verified: a very few Hungarian small farms had access to the EU rural development subsidies until 2015 because they were mostly eligible for using supports to promote to become market-oriented entities due to their farm (economic) size. This measure, however, was unsuccessful due to the disproportionate and strict application conditions in the period 2004-2007, it is not even implemented between 2007 and 2013.

Based on a detailed analysis of the management of small farms, it can be stated that only a few small farms with SO below EUR 4000 – with younger, educated farmers with an entrepreneurial background and production experience – may be potential targets of rural development programmes which provide support to become full-time commodity producers. The majority of small farmers are not capable of commodity production due to age, existential reasons and the lack of a business-profit-oriented attitude.

In the 2014-2020 programming period, in order to ensure the success of support for market-oriented farming the programme should involve favourable credit arrangements, and the application for rural development support should be widely available as nearly twice the amount of resources that are indicated in the rural development programme measures for supporting small farms would be needed in order to establish full-time, efficient commodity producer farms with sufficient assets.

An increase in the number of small farms that cannot be developed for market-oriented production is necessary from the social policy and rural policy perspectives, but this can only be envisaged within the framework of complex programmes supporting market entry by production co-ordination which, in addition to current assets, also deliver knowledge and secure full-time income in addition to supplement activities, as agricultural activity itself may not become the main source of income in the case of such a small farm size.

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