FORMATION OF LAND AND FARM STRUCTURE AT HUNGARY'S WESTERN GATE

KACZ, KÁROLY – LŐRINCZ, ZSUZSANNA

Key words: farm structure, agricultural land, land use, land structure, private farm.

SUMMARY FINDINGS, CONCLUSIONS, RECOMMENDATIONS

As one of the three counties forming the West-Transdanubian Region and being the "western gate" of the country, Győr-Moson-Sopron County plays a significant role in Hungary's agrarian sector due to its geographical location and natural characteristics.

In accordance with the requirements of competitiveness and increasing efficiency by the county's farms, the developing processes of concentration and specialisation are differentiated within various agricultural groups. While the number of private farms decreased and the average size of farms increased in recent years, the number of economic organisations increased slightly and their average area decreased. (Despite this the county's corporations and cooperatives are still larger than the national average.)

On the basis of the database of the County Office of the Ministry of Agriculture and Rural Development (MoARD) and the results of two individual questionnaire surveys it can be stated that the structure of land ownership and land use is far from identical; the use of agricultural land shows a more rational structure than land ownership. On the basis of the average size of productive private farms these medium-sized concerns have a better chance of succeeding in the competitive market.

To sum up our investigations we believe that the current farm unit/operational forms are sustainable in the long-term; particularly the medium-sized and larger corporations and private (family) farms.

INTRODUCTION

On basis of the NUTS planning-statistical system of regions, seven regions (NUTS[1] II level) have been defined in Hungary. Being the "western gate" of Hungary, Győr-Moson-Sopron County represents the NUTS III level as a part of the West-Transdanubian Region; the county takes up 4.4% of the country's territory. The emphasised investigation of the situation in the county is explained by its considerable role not only in the region's, but also in the country's agrarian sector, due to its geographical location and natural characteristics.

Due to the variable production potential and circumstances of the county the characteristics of land use vary consid-

[1] **NUTS** (Nomenclature of territorial units for statistics): five-level statistical hierarchic classification system of the European Union.

erably facilitating a mid-level, in some places even a high level, of production. The average quality of agricultural land is high in the county, exceeding the national average, thus 84.6% of the land is utilised, which is also higher than the national average.

1. CHARACTERISTICS OF LAND USE AND FARM STRUCTURE

Economic organisations[2] play a more important role in land use in Győr-Moson-Sopron County than private farms[3]. The average size of land used by economic organisations exceeds the national average values, while land used by private farms fall short of it. The reasons for this situation can be found in the original large sizes of economic organisations (going back several decades) and the ratio of the different farming unit types.

Based on data from the *Agricultural Census (2000)* and *Farm Structure Survey (2003)* the average size of land used by private farms increased during this period to 4 hectares while land used by economic organisations decreased to 606 hectares. Private farms used 32.7% of the land in Győr-Moson-Sopron County in 2003, which falls behind the national average. Economic organisations used 67.3% of the land; their share exceeds the national average.

Table 1 shows the share of land usage by private farms and economic organisations.

Private farms use seven-tenths of the land as arable land in Győr-Moson-Sopron County – similar to the national values; this share might vary among the micro-regions on the basis of the different production circumstances and potential. In the case of economic organisations besides arable land the share of forest areas is quite significant in land usage.

The number of agricultural units operating in the county shows a slight decrease on the whole from the end of the '90s. This process is due to 'natural selection' and concentration and is likely to be further strengthened as a result of our accession to the EU. Based on the data of the *Hungarian Central Statistical Office (HCSO)*, at the end of 2003 the county could be placed mid-scale with respect to the number of agricultural holdings.

Evaluating the data based on regional statistics it can be stated that the number of *cooperatives* show a slight decrease between 2000 and 2003. One can assume not only cessation, but also different operational forms; some of these cooperatives continue to operate as corporations (PLCs, limited companies). The number of cooperatives does not show a change of direction that would indicate a shift from the negative tendency to date or allow us to assume the establishment of new-type cooperatives (*Hegyi, 2005*).

The number of *corporations* mirrors a slow increase, primarily the number of limited liability companies increased considerably. Most joint venture companies operating in the county have chosen this form of operation.

However the number of *private farms* decreased. Considering the size of land utilised by private farmers one can suppose a significant level of concentration.

[2] Corporations (legal and non-legal person enterprises) and cooperatives together.

[3] Households reaching the threshold of statistical farming unit size, primary producers, private entrepreneurs and family farms together.

Table 1

Share of land usage by private farms and economic organisations, 2003

Regions	Productive land area of private farms		Total productive land area		Productive land area of economic organisations	
	ha.	%	ha.	%	ha.	%
Gy-M-S	*99 105*	*4.2*	*290 559*	*5.0*	*191 454*	*5.5*
West-Transdanubia	232 168	9.8	719 752	12.3	487 584	14.0
Country total	2 357 689	100.0	5 829 781	100.0	3 472 092	100.0

Source: Own calculations based on HCSO database

2. THE COUNTY'S FARM STRUCTURE ON THE BASIS OF MOARD DATA

Regarding farm structure and land use the database of the County Office of MoARD shows a more accurate and also different picture than HCSO data. The number of agricultural units that attained the actual farming unit size of over 1 hectare of agricultural land, registered by the office in 2002, is as follows.

- Private farm: *Primary producer*[4] (3581 units), *Private entrepreneur* (192 units), *Family farm* (517 units)
- Economic organisation: *Corporation* (134 units), *Cooperative* (39 units)

Only 4% of the farms are economic organisations; the share of private entrepreneurs and family farms is 16% altogether. More than 80% of the agricultural units operated as a primary producer (Figure 1).

Evaluating the average farm size of agricultural units it can be stated that the more regulated the legal form is in which the farm operates, the larger the average size is of the farm (Figure 2).

Comparing data on the figure with data of the HCSO it can be stated that in the case of both economic organisations and private farmers the average size of land effectively used by agricultural units registered by the County Office of MoARD considerably exceeds the related data of the Farm Structure Survey. The high relative values of the farming units are derived from two factors: on the one hand the 1 hectare size threshold has a selective effect on the values, while on the other hand the database of the MoARD includes registered and operating farming units, thereby showing a more accurate picture. In regard to private farms, even the primary producers cultivate twice as much land as the private farmers of the HCSO; this rate is 40% higher in the case of economic organisations.

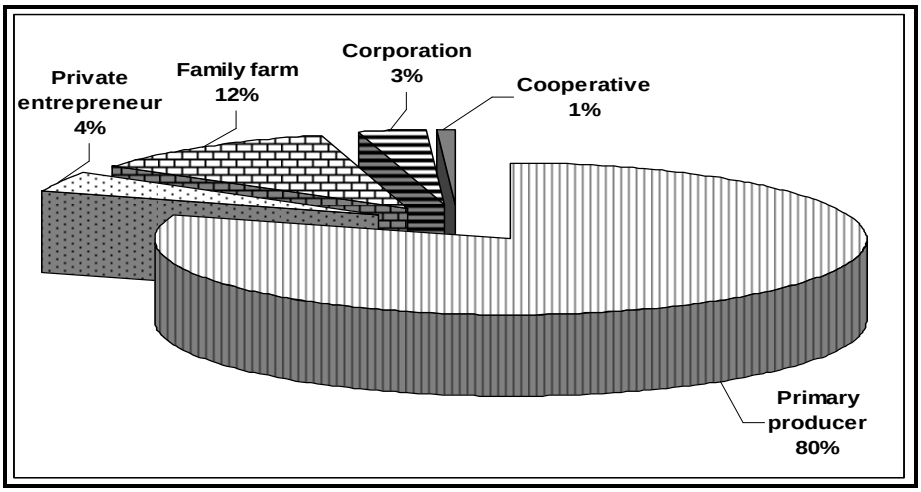
3. INVESTIGATION OF PRIVATE FARMS IN GYŐR-MOSON-SOPRON COUNTY

This conclusion is also supported by a questionnaire survey that was conducted by our institute in 2002. 160 private farmers with a cultivated area larger than one hectare were personally interviewed. During the research a lot of attention was paid to the sampling process, in order to approach the same ratio of certain operational forms in the sample, as exist in the basic database (database of MoARD).

[4] So called **„őstermelő"**: a special administration category, app. licensed traditional small-scale (agricultural) producer. A non-entrepreneur private farmer, who conducts activities listed in the relevant law on his/her own farm and holds a registered licence for the activity (*FVM, 2004*).

Figure 1

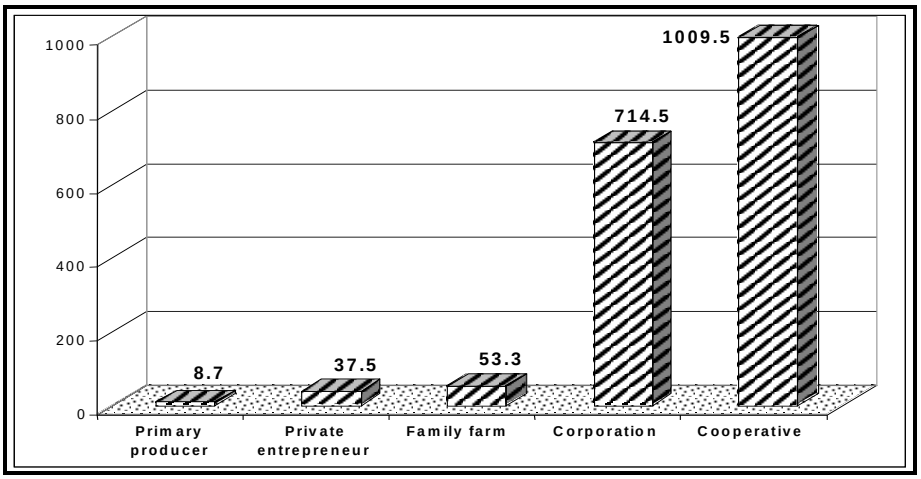
Share of agricultural units in Győr-Moson-Sopron County (%), 2002



Source: Own calculations based on the database of the County Office of MoARD

Figure 2

Average size of agricultural units by operational form in the county (ha.), 2002



Source: Own calculations based on the database of the County Office of MoARD

In analysing land use, it is helpful to place private farms in the focus of the investigations, as the farm structure of private farms significantly differs from the farm structure of the economic organisations. The former may include both rented land and own property, while the latter are forced to primarily use rented land for their operations. The findings of the survey can be summarised as follows.

The average farm size calculated for the total number of private farms does not only significantly exceed the HCSO data for private farms, but also exceeds the average farm size of farmers registered by the County Office of MoARD (Table 2). Investigating the characteristics of utilised land, some additional differences can be observed besides the average farm size, with respect to the different operational forms.

Table 2

Average size, field part and distance (from the farm centre) of private farms based on the questionnaire survey, 2002

Operational form	Land (ha.)	Field part (Unit)	Land/Field part (ha.)	Distance (km.)
Primary producer (n=113)	13.3	4.1	3.5	3.3
Private entrepreneur (n=13)	69.2	9.5	7.3	6.3
Family farm (n=34)	69.6	8.9	7.9	4.9
Total (n=160)	***29.8***	***5.6***	***5.5***	***3.9***

Source: Own research

The total area of the farming units can be found in 5.6 parts on average, at a distance of 3.9 km from the unit centre. Investigating the differences in operational forms it can be concluded that the number of field parts is primarily dependant on the farm size. The bigger the farm, the higher the number of field parts and the larger the relative distances from the centre. However it is important to emphasise that these values are not directly proportional to the sizes of farming units. It is especially true for family farms; the relative size of the farming unit is five times greater than that of the primary producers, although the number of field parts is barely more than two-fold. (Furthermore the average size of land per field part unit is the highest in this group.) The average distances of field parts from the unit centre are within the tolerable 10-15 km distance in all three cases.

On the basis of the investigation results 35.5% of private farms rent land, 29.8 hectares on average. The individual operational forms naturally do not benefit from the institution of land rental in equal measure:

- 22% of *primary producers* rent 12.9 hectares of land on average. It can be concluded that primarily relatively large farming units cultivate rented land.
- More *private entrepreneurs* (46%) rent land - 63.2 hectares on average; the sample included a farming unit of 202 hectares, of which all the fields have been rented.
- The share of rented land is the highest among *family farms*: 76% rent 38 hectares on average.

In our opinion in this respect the 'healthiest' – sustainable in the long term – structure is represented by the family farms. Many use rented land, but primarily it is the relatively larger farming units that utilise the institution of land rental. Considering the average size of farming units the relative size of land rents equals 55%, while for the other two operational forms the share of land rent approaches the average farm size. Having these values and assuming continuous farm concentration, family farms seem to have the best future perspective.

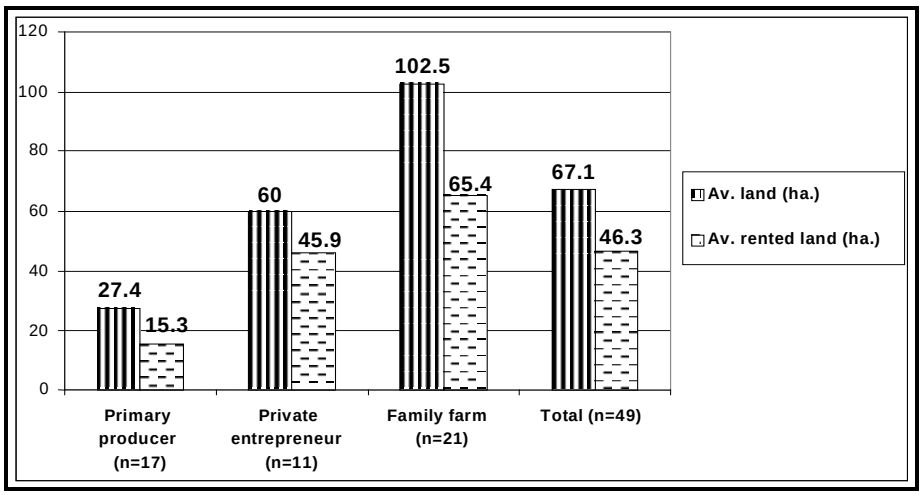
This statement also seems to be justified by a repeat of our investigations two years later: the average size of land used

by private farms in the county has increased considerably. The values of 2004 are 2.25 times higher than the 29.8 hectare average in 2002 (Figure 3). As private farms in the county – similar to the other parts of the region and the country – faced a significant decrease in number, land area concentration was a logical supplement to this process.

The share of rented land has increased considerably in all the three operational categories. In the case of the total number of private farms – similarly to the increase in average size of utilised land – the share of rented land has increased by 2.25 to 80.4%. This value is spread between the value of primary producers (68.8%) and family farms (90%).

Figure 3

Average size of land and rented land of the operational forms (ha.), 2004



Source: Own research

The increase of land size applies to all operational categories except *private entrepreneurs*. This difference of negative direction could be due to the torsion of the relatively small sample number, although the share of full time agricultural units in the sample was very high in the previous survey. The size of rented land has relatively decreased by more than a quarter, compared to the previous survey.

The relative size of *primary producers'* land has increased twofold, although the average size of rented land has increased only slightly. It is most likely that farm concentration resulted in a considerable fall in the numbers of this operational form, as the source of the decrease both in terms of the number of private farms and of land concentration was the smallest farming units.

It seems that *family farms* are the winners of concentration processes: the relative size of land has increased 1.5 times in two years. However, it should be mentioned that the average size of rented land has increased similarly, but the share of land-rent in the average land size remained unchanged. These facts lead to the conclusion that family farms are successful in responding to market challenges and they have a good chance of becoming competitive mid-sized farming units in the future.

Analysing the categories of land use – considering the total number of farming units and the total size of cultivated agricultural area – the share of land rent exceeds 55% (Figure 4). This value was 20% lower in 2002.

The share of own land only reaches 50% for *primary producers*, and together with the share of land used for "contribution in kind" it represents a significantly high rate. The share of rented land was much lower (21.6%) in the survey of 2002.

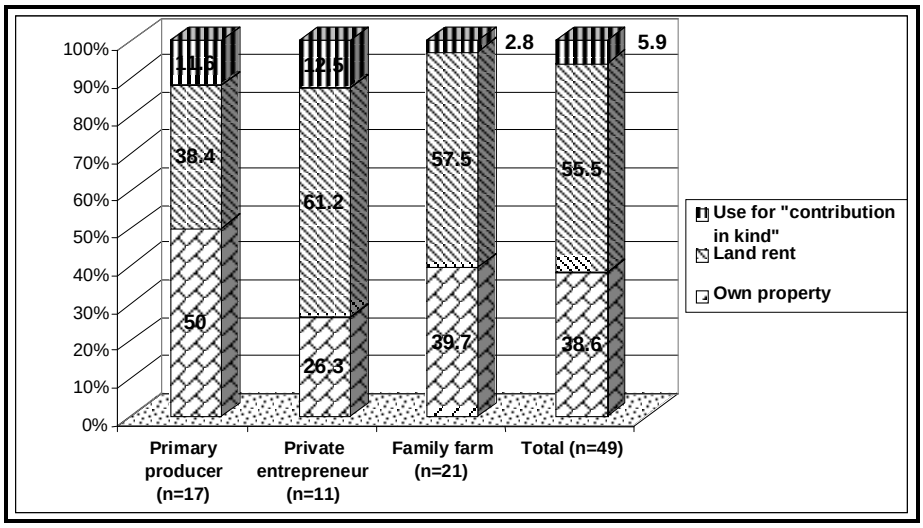
Private entrepreneurs use rented land approximately 20% more than in 2002, and also the share of land use for "contribution in kind" is the highest in this operational form. (Survey results indicated that the share of land use for "contribution in kind" is the highest in Győr-Moson-Sopron County compared to the other two counties of the region, but even this high share is below the national average.)

Family farms also increased the share of land rents with 16% compared to 2002 values, approaching the values characteristic of private entrepreneurs. It is interesting that the share of land use for "contribution in kind" is considerably lower than in the case of the other two operational forms.

The dominance of plant production that is characteristic of Győr-Moson-Sopron County was not justified. The mixed farming structure is characteristic among primary producers and family farms and even most private entrepreneurs are not specialised. However the two national statistical censuses indicate that while the size of land used by farming units with mixed farming structures is decreasing, land used by plant production farms is increasing considerably. It can be assumed that the share of farming units specialised in plant production will increase in the future, and this tendency will continue in the region and also in the country.

Figure 4

Share of land by land use categories within the operational forms (%), 2004



Source: Own research

REFERENCES

(1) FVM (2004): Programme-Complement (PC) to the Agriculture and Rural Development Operational Programme (ARDOP) (2004-2006). Budapest, p. 47. – (2) Hegyi J. (2005): A nyugat-dunántúli szarvasmarhatartó üzemek méretének változása és tendenciái. Mosonmagyaróvár, Doktori (PhD) értekezés, 111-115. pp. – (3) Rácz K. (2002): Finding Farmers Country Survey: Hungary. Liverpool, UK, Centre for Central and Eastern European Studies, Working Paper No. 56. Rural Transition Series, pp. 3-4. – (4) KSH (2000): Földhasználat Magyarországon a 2000. évben – településsoros adatok – (ÁMÖ 2000). Budapest, 356-357, 360-361, 364-365. pp. – (5) KSH Győr-Moson-Sopron, Vas és Zala megyei igazgatóságai (2001): A magyar régiók mezőgazdasága, 2000. Nyugat-Dunántúl. Győr, Szombathely, Zalaegerszeg, 9-17, 27-31. pp. – (6) KSH (2004): Mezőgazdasági statisztikai évkönyv 2003. Budapest, 209-213. pp. – (7) KSH (2004): Magyarország mezőgazdasága, 2003. Gazdaságszerkezeti összeírás I. kötet. Budapest, 172. 32-33. pp. – (8) KSH (2004): Gazdaságtipológia 2000, 2003. Budapest, 34-39. pp.

ADDRESS:

Lőrincz Zsuzsanna
PhD hallgató
Nyugat-Magyarországi Egyetem
Mezőgazdaság- és Élelmiszertudományi Kar
Gazdaságtudományi Intézet
Üzemtani Tanszék
9200 Mosonmagyaróvár, Vár 2.
Tel.: 96/566-642, Fax: 96/566-610
E-mail: radnics@mtk.nyme.hu

Kacz Károly
tanszéki mérnök, PhD hallgató
Nyugat-Magyarországi Egyetem
Mezőgazdaság- és Élelmiszertudományi Kar
Gazdaságtudományi Intézet
Üzemtani Tanszék
9200 Mosonmagyaróvár, Vár 2.
Tel.: 96/566-642, Fax: 96/566-610
E-mail: k-kacz@hotmail.com