

# CHANGING OF LAND USE SCALES FROM DIFFERENT POINTS OF VIEWS – THE BIG AND/OR THE SMALL

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**In my paper I deal with the Hungarian agrarian history from the 19th century until today. Throughout this time I research how the ratio of large and small agriculturally cultivated land properties changed compared to each other. The concluded information gained are interesting of many aspects such as changing of agricultural policy, economic driving forces changing the range of biodiversity, soil fertility, habitat preservation or alteration. Apart from ecologic consequences severe effects can be detected in society also. Agriculture is one of the main player affecting directly and intensely the soil. To be able to create a learning region on sustainable soil and land use we have to be aware of our common European and identical national history and differences. I discover with the help of nation-wide statistical data what driving forces led to various governance measures in historical situations in the Hungarian agricultural property and what these situation tell us concerning our present and future.**

## **Introduction**

In order to be able to create a learning region the participants have to be aware of each other's most important features that affect the soil and land use. That is why I carried out a general research of Hungarian agrarian history focusing on the changing of ownership. Agricultural production has been overwhelmingly important throughout each period of the Hungarian economy so changing ways of agricultural cultivation affected land use and soil conditions largely in our country.

## **Conclusions**

In contradiction with the usual structure of a scientific paper I present the research results here, in the beginning. Concluding in the beginning makes reception of ideas easier and quicker.

1. There is too much stress on economic competitiveness. According to profit-oriented economic rules large-scale cultivation methods using large pieces of land gather ground in an unhealthy measure. This way of cultivation is only sustainable from the economic point of view but not from the point of society and

ecology and it interferes with European agrarian-policy.

Taking real processes into account an intense change in agrarian policy is unlikely to occur so the overwhelming ratio of large-scale properties can be taken for granted. Assisting cooperation and grouping of small-producers and family farms can be the balancing way out.

2. Neither extremity of cultivation scales are viable alone. Agricultural structure of the 1930's has shown that the domination of large-scale properties caused severe distortion in Hungarian economy. According to the present European property ratios it is also clear that the small-parcel dominated structure is not functioning. The optimal would be the balance between small family farms, medium farm-cooperations and large agricultural plants.

3. Large pieces of cultivated land properties were accumulated because of economic reasons. But we have to be aware of negative effects of large-field cultivation on the ecosystem and also the human habitats.

4. The tension between property ownership and will of cultivation has not ended but turned

to the opposite. For hundreds of years there was enormous desire in the society – members of what would have been able to cultivate the land – towards property ownership that could not have been fulfilled. This desire remained unchanged until the land-reform in 1945. The achievements of the land-reform remained in power only for few years, between 1945-1949.

The enormous difference among ownership, ability and desire for cultivation was shown in its true tragedy after the system change and the restitution. 40% of the land was given back to private owners who were not any more in the position to cultivate it, they were either too aged or had not the equipment and experience so the “useless” land was sold or rent.

5. A more balanced situation in agriculture could be achieved with the change of the cultivation structure in accordance with the regional differences. Environmental-ecological and fertility factors divide the Hungarian land into three main groups: a, intensively used b, extensively used c, to take out of cultivation. If cultivation followed the above pattern, our agriculture could be in a more optimal position.

6. Ratio of crop growing and animal keeping dangerously shifted towards animal keeping. The two main branches of agriculture have been in quite balanced until the system change, after which the number of kept animals intensely sank. Today 2/3 of agricultural products are crops and only 1/3 is animal product. The overwhelming amount of crops is a result of the internationally high price. A lowering of the market price may cause disaster in the agrar sector. Although this unhealthy production ratio rises severe ecological questions such as soil fertility and food security.

### Governance periods

Now that we know where we have to arrive in the end shall proceed the historical review of property ownership ratios. Meanwhile my research I discovered that in every period properties can be very well divided into two main groups where the division number is 50 hectares. Comparison of either the number or the area taken up by properties below and above 50 hectares show well the large tension that could be formed in certain times in the society. Looking through the history it is striking that the situation of the “few large-lot of small” nearly never changed.

#### From 19<sup>th</sup> century until 1945

According to statistical data in 1895 99% of land owners owned less than 50 ha and these properties took up 51% of Hungarian

agricultural land while the rest 1% of the owners had more than 50 ha, and owned 49% of the total cultivated area. This means that 99% of owners used half of the land and 1% used the other half. This ratio have not changed in 40 years, as we see quite the same data in 1935. We have to know that at this time 60% of Hungarian habitants earned their living – at least tried – from agriculture.

Tab. 1 Property ratios from 1895 to 1935

	1895		1935	
	num. of prop. (%)	area (%)	num. of prop. (%)	area (%)
below 50 ha	99	51	99	52
above 50 ha	1	49	1	48

Source: Magyarország a XX. században

After the industrial revolution economy and population was booming so with the building out of the railway system international market (mostly within the Austro-Hungarian Monarchy) was suddenly wide open for Hungarian agrar products. Extensive methods and self-sufficient amount of crops vanished fast in the process of intensification. Grazing fields were transformed into cropland which caused significant change of the landscape. Intensification was started on the large properties. They needed lots of human labour power that was sufficiently delivered from the empoverished layers of society. According to economic rules cultivating machines appeared soon on the large fields.

Booming stopped during and after WW I. Small landowners sunk rapidly and the owners of intensively treated large properties needed rationalisation. This meant substitution of human labour with machines and dismissing needless people, resulting more and more paupers. This negative process led by 1930 to the “country of 3 million beggars”. This amount of people meant at that time 1/3 of the Hungarian population.

For the small farmers some kind of solution was the so-called Garden-Hungary movement that urged intensive human-labour-based horticultural cultivation. Of course this was not the ultimate solution and especially not for the great mass. The large, starving mass of people was “consumed” by WW II. and after that by the urbanisation and industrialisation.

#### 1945-1949

Land structure changed first radically throughout the history after WW II during the overall land reform started in the new political system. According to the regulations of the reform all noble properties above 570 ha and all non-noble properties above 114 ha had to

be divided and shared out and the former owners could keep maximum 57 hectares.

The land reform was carried out with extreme rush, in some villages in a few hours and unfortunately injustice and violence also occurred, which were signs of the unimaginable eager for owning a piece of land. As a result of the land reform out of the 3 million "beggars" 640 000 got an average of 3 hectare and so 99% of the agricultural land belonged to 95% of the owners who had less than 50 ha of property, while the rest 1% of owners had more than 50 ha, altogether 4,5% of the total area.

Tab. 2 Property ratios in 1949

	1949	
	num. of prop. (%)	area (%)
below 50 ha	99	95
above 50 ha	1	4,5

Summing up shortly the land structure reached the other extremity: the previously used technology and machinery (e.g. 7000 tractors) was suddenly useless as the new owners didn't need machinery on their small parcels. The new feeling of ownership gave fresh impetus that led to the first "Hungarian agrarian wonder", that made possible the ending of the war ticket system in 1947. Unfortunately this wonder did not last more than 3 years, as from 1948 collectivisation of agrarian land began. Collectivisation, often carried out with violent, dictatorial and illegal methods, was steered by the socialist agrarian policy that aimed merging together all private properties in favour of creation of cooperative farms.

#### 1949-1989

Despite the unreasonable collectivisation in this time period 15% of land remained in private ownership, 70% belonged to cooperative farms and 15% belonged to the state. Most of the cooperative farms functioned successfully as the state compensated every deficit. With the help of the state the standard of agriculture rose rapidly and in some cooperatives were equal with the international level. Parallel with the new technologies we must not forget about the immense and uncountable human knowledge and experience that was forgot and lost in the ten-thousands of eliminated private farms as well as the weakened landscape values and lessened biodiversity.

Apart from the overall existing cooperative properties there remained a last reserve of private owned land called croft garden (garden next to the house). This piece of land was 0,6 ha large in average and was left to the families

to cultivate. The production in the croft gardens grew significantly from the 1970's and in some horticultural and poultry and pig sectors gave half of the national output.

Croft owners and the cooperative farms closely cooperated: cooperative farms gave the more expensive machinery and purchased the end-products and so balanced and secured the market for small-producers. Cooperatives also traded with the products that brought reasonable income for them. Although this balanced cooperation system of small and large producers was fruitful it has not survived the system change and the restitution.

#### 1989-2007

After the system change in 1989 and the following restitution from 1991 private ownership became again determinative (92%). From this time statistics mention owners as either private farmers or economic organizations so I also use this terminology.

In the new system property ownership can be divided into two main poles and the ratio of the two are even more unbalanced as it has ever been. One pole stands of the 2,6 million private owners who gained small-parcel property after the restitution. The other pole is made up of economic organizations cultivating land on large areas. The 50-hectares border describes the present situation also well: 98% of private owners have less than 50 ha, while 98% of the land used by economic organizations is in parcels larger than 50 hectares.

According to the data of Conscription of Economy Structure from the year 2005 by the National Statistical Office 98,8% of owners have less than 50 ha, taking up 30% of cultivated area and 1,4% of owners have more than 50 ha, occupying 70% of the total area. This 70:30 ratio tells us that the unbalance between large and small property owners has never been so large.

Tab. 3 Property ratios in 2005

	2005	
	num. of prop. (%)	area (%)
below 50 ha	99	30
above 50 ha	1	70

During the research I noted an interesting contradiction between two significant data sources. The above 70 (economic organizations):30 (private farmers) ratio was recently presented by the National Statistical Office. Very different numbers, 37 (economic organizations):57 (private farmers) can be

read in the National Agri-Rural Development Program.

According to the EU Agri-Rural Development Strategy the family-farms are the most important stakeholders of sustainable agriculture and land use. The present situation in Hungary totally contradicts the EU policy above as agriculture is dominated by large-scale properties using industrial methods.

The cause of the contradiction between the two data and occurrence of the milder data in the National Agri-Rural Development Program might be that policy-makers cannot undertake the fact in national or international publicity that the shift towards large-scale agriculture is now even larger than before hundred years.

There is another possible negative consequence of the data published in the National Agri-Rural Development Program: according to those numbers Hungarian land ownership is too fragmented so even more concentration of properties is needed.

The European rural development policy, which is based on family farming will hardly come true if the national agrarian policy totally contradicts with it and focuses henceforward on concentration.

Fig. 1. Property ratios by the National Statistical Office

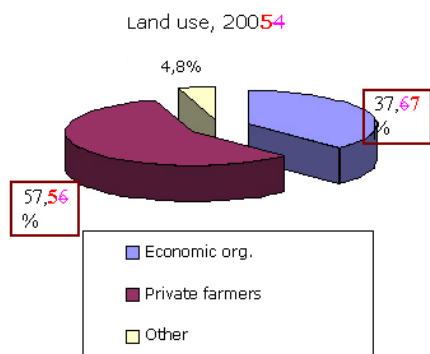
**Number of properties and area of cultivated land in 2005**

Area (ha)	Properties	
	Number	Area
0	41,79	-
0 < 0,2	16,42	0,41
0,2 - < 0,5	13,26	0,76
0,5 - < 1,0	5,82	0,75
1,0 - < 5,0	13,80	5,89
5,0 - < 10,0	3,53	4,69
10,0 - < 50,0	3,99	15,99
50,0 - < 100,0	0,67	9,20
100,0 - < 300,0	0,51	17,03
300,0 and more	0,21	45,29
<b>Total</b>	<b>100,00</b>	<b>100,00</b>

Annotations: 98,6% (properties 0-50ha), 28,5% (area 0-50ha), 1,4% (properties 100-300ha and more), 71,5% (area 100-300ha and more).

Resource: Magyarország mezőgazdasága 2005, National Statistical Office

Fig. 2. Property ratios by the National Agri-Rural Development Program



Resource: National Agri-Rural Development Program

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