

CLASSIFICATION OF RURAL SETTLEMENTS IN HUNGARY AT THE BEGINNING OF THE THIRD MILLENNIUM

A MAGYARORSZÁGI FALVAK TÍPUSAI A HARMADIK ÉVEZRED ELEJÉN

KLASIFIKÁCIA OBCÍ V MAĎARSKU NA ZAČIATKU TRETIEHO TISÍCROČIA

BELUSZKY PÁL – SIKOS T. TAMÁS

Összefoglalás

A rendszerváltás gyökeres fordulatot eredményezett a falusi településeket formáló folyamatokban is; a mezőgazdasági népesség arányának további csökkenése, a mezőgazdasági nagyüzemek többségének felbomlása, átalakulása nyomán a magángazdálkodás uralomra jutása, az alapellátás feltételeinek változása, a munkaerőpiac újrendeződése átformálta a szocialista éra falvainak képét, társadalmát, földrajzi jellemzőit. E folyamat felmérését célozza e tanulmány, amelyben faktor- és klaszteranalízis segítségével kíséreltük meg kimutatni a 21. század elejének magyarországi falutípusait.

Kulcsszavak:

településformáló folyamatok, falutipizálás, Magyarország falutípusai

Rezumé

Zmena režimu priniesla radikálny obrat aj v procesoch formujúcich vidiecke usadlosti. Rápidne zníženie pomeru vidieckeho obyvateľstva, zánik a reorganizácia väčšiny poľnohospodárskych veľkopodnikov, následkom čoho bolo zosilnenie pomeru súkromného majetku a v neposlednom rade zmena podmienok základnej starostlivosti a reštruktúracia trhu práce mali za následok, že sa od čias socializmu zmenil celkový obraz maďarského vidieka jednak po stránke spoločenskej ako aj geografickej.

Náš prieskum sa pokúsil zmapovať proces tejto premeny. V našom štúdiu sme sa pomocou klastrovej a faktorovej analýzy snažili vytvoriť schému typov maďarských obcí na začiatku 21. storočia.

Kľúčové slová

procesy formujúce obce, typizácia obcí, typy obcí v Maďarsku

With the change of regime in Hungary (1989-1990) not only the authocratic, state-capitalist "socialist" regime was replaced by the political system of democratic market economy, it also resulted in fundamental changes in the processes formulating rural settlements. The rate of agricultural population kept decreasing, the majority of agricultural factories fell apart or was reorganized, so private farming could gain ground. These processes alongside with the changes in the availability of basic supply and in the structure of the labor market reformulated the picture of rural settlements, the society and the geographic features they possessed in the socialist era. This study aims to survey this process by establishing the typology of rural settlements at the beginning of the 21st century by the method of factor- and cluster analysis.

The system and the network of Hungary's rural settlements were arranged according to traditional - before the age of industrialization - principles even after World War 2. The majority of wage earners were employed in the agricultural sector (1949 : 53.8%), the main part of the population lived in villages with "traditional" functions (primarily agricultural function, places of living and work overlapped, isolation, poor infrastructure, etc.); according to the data by the 1949 census the inhabitants of settlements of this type made up 53% of the total population, while another 11-12% lived in incorporated towns, i.e. settlements having limited urban functions with considerable mining or manufacturing industry, or in newly-forming agglomerations. 17.3% of the population lived in the capital and 19.0% concentrated in towns (Thirring, 1963).

The "decisive year" (1948, the year when the communists came to power) brought along sudden, drastic changes that mostly lacked any organic development. We must note that right after the end of World War 2 rural settlements experienced events that fundamentally changed their lives: *land distribution*¹ and in some parts and some settlements of the country the *German ethnic* part of the population - Swabians - was forcefully *relocated*². The effects of these changes were manifold and deeply rooted; their results - the shock the traditional society of the villages had to suffer, the change in their lifestyle - cannot be detected in statistical data. It is not enough to register that the rate of wage earners in agriculture in the country decreased to 38.5% by 1960 and to 15.3% by 1990. Between 1960 and 1970 villages suffered a loss of 600,000 people caused by out-migration, while some settlements doubled or tripled their population in the first few years of the socialist era, at the same time others shrank to fifth or tenth of their former size (for example a dwarf village in Transdanubia, Gyűrűfü, which had 253 inhabitants in 1949 completely depopulated by 1972). It is also merely statistical data that *two-fifth of the wage earners in the villages became commuters*, with all its advantages and disadvantages³. The far-reaching effects of collectivization and the fact that only 4.5-5% of the land was cultivated in the frame of private farms (private gardens on community land, backyards, land given by cooperatives to their workers to use, and some thousand peasant farms). Behind these figures considerable, sometimes involuntary migration processes can be detected, which might mean either occupational changes from agricultural to industrial jobs, previously self-employed farmers becoming employees, or abandoning the villages and moving into towns, even becoming inner-city dwellers in blocks of flats. Further changes in the society, lifestyle and economy (disintegration of village communities, alteration of roles in the family, spectacular improvement in the equipment of dwelling places) cannot be enumerated here. All these happened *inside* one generation, not *between* them. The extraordinary speed of the changes (the industrial society emerged only in 20 years, while the same process in the western part of Europe lasted 80-100 years in most cases) also had a multiplying effect: the development of the "new" could not keep pace with the destruction of the "old". Besides the general processes the stock of rural settlements differentiated strongly: in the neighborhood of the big cities and of prosperous agricultural cooperations relatively wealthy, growing settlements came to existence while in depressed areas villages started to decline rapidly (depopulation, demographic erosion, ageing population and the accumulation of socially disadvantaged people hit them) (Beluszky - Sikos T. 1982).

While 1948 was a decisive year, 1989-1990 saw a change of regime. Its effect on the stock of rural settlements was almost as (?) deep and far-reaching as those of the events after 1948. Our presupposition, that the change of direction after 1990 affected the villages less dramatically, is based on the fact that some elements of rural lifestyle which evolved after 1949 and were already common did not change considerably after the change of regime (e.g.

commuting, industrial work, family structure, demographic behavior patterns, "modern" lifestyle, etc.). On the other hand, these processes were not forced as much as the cases of relocation or collectivization, however, becoming unemployed is a forced, involuntary process.

The effects of "the change of regime" on the stock of rural settlements

- After the establishment of the political, legal, proprietary conditions of market economy villages entered the *market of settlements*. Even if the possibility of influencing the development of the settlements from the outside has not been eliminated (a rather high ratio of the means to operate local governments is distributed and allocated from the national budget, small rate of local tax incomes, regional development activities), several changes increased the possibilities for self-determination in the settlements. The economy and even the selection of the location for services are ruled by market economy. The different features of the settlements, such as their geographic and transport position, their natural resources and environmental conditions, their labor market positions and the condition of the society as well as their purchasing power all determine their course of development, their economy and their success or failure. The higher degree of choice increases the importance and the efficiency of personal endowments in the operation of the settlements (the innovation ability of the local society, their willingness and knowledge to establish businesses, the local "elite", the strategy and the ability of the leaders of the local government, etc.)

- While in the system of governing *councils*⁵ money allocated to the individual councils was decided by central financing directives and on a subjective basis, today they receive *normative financial support*. These are allocated partly on a per capita basis partly on the basis of designated tasks (kindergarten capacity, number of students, people receiving social allocations), independently from their administrative position (town or incorporated towns). This way the differences among their financial means have decreased.

- The *autonomy*⁶ and the local government character of the incorporated towns have increased.

- The process of granting urban status to incorporated towns sped up after 1990. During the time of our previous research (1982) the number of towns did not reach 100, while this number now is 298, so two-third of the country's population live in settlements with urban status. Part of them does not perform urban functions. The present (2007) status of the settlements in the administrative system is described in *Table 1*.

TABLE 1
The status of settlements in the administrative system, 2004

<i>The status of settlements in the administrative system</i>	<i>Number</i>	<i>Per cent in the total number of settlements</i>
1. Town	274	8,7
2. Incorporated town with an independent notary office	1 254	39,9
3. Seat of a district-notary office *	552	17,5
4. Settlement without a notary office	1 065	33,9
Total	3 145	100,0

See Note 6

- This partly means that one type of the rural settlements which was established in the typology of rural settlements in 1982 - villages with urban functions - has disappeared from our present study. In addition to this, some settlements previously classified as villages were granted urban status, thus they got also out of the scope of this research. These are not simply small towns belonging to the rural areas, but they are rural settlements themselves.

- The first years of the political-social changes took place during the time of severe *economic recession*. The number of industrial wage earners decreased with 540,000 between 1988 and 1993 (this is 3% of the number in 1988), while the total number of the employed decreased with 1.1 million. Economic activity also declined heavily; from 43.6% in 1990 to 36.2% in 2001 (the rate of active wage earners in 1970 was 48.3%). In the meantime occupational restructuration also took place; the number and the rate of agricultural wage earners decreased faster than those of industrial wage earners, while both the number and the rate of wage earners in the tertiary sector increased (*Table 2*). Decline in production led to closing down many mines and factories (by 2001 the number of wage earners in mining industry decreased to 6.3% of the 1980 number), mainly in Borsod-Abaúj-Zemplén, Nógrád and Komárom-Esztergom counties. Extensive crisis-areas (rust-zones) were formed, which included not only mining and industrial settlements and towns, but their commutation zones as well. Large, unbroken crisis areas were formed in North-East Hungary, along the Ózd-Miskolc axis, in the border zone, covering almost the whole area of Szabolcs-Szatmár-Bereg County, in Nógrád County and in several mining areas in the Dunántúli-középhegység (Transdanubian Central Range). Decrease in production brought along a new phenomenon: *unemployment*. The number of registered unemployed approached 700,000 by the beginning of the 1990s. Their distribution was uneven in the country, the rate of unemployment grew to 19% in Szatmár-Bereg, to 17% in Borsod-Abaúj-Zemplén County, but in some microregions it reached even 50%. (By the census data in 2001 there was a dwarf village in the country without a single wage earner, or everybody of working age declared themselves unemployed.) The rapid reduction in the number of active wage earners, the high rate of unemployment in certain microregions, the formulation of crisis areas resulted in a rather unfavorable situation of some rural settlements. Economic growth picked up again in the second part of the 1990s, the decrease of real incomes stopped, the number of unemployed decreased. The "reconstruction" of the economy does not mean returning to the previous state - spatial distribution, economic and occupational structure, etc. The location of the economy has changed, the competitiveness of the towns has also restructured. This means that the structure of the settlements did not return to the structure as it was before 1990, but significant restructuration took place.

TABLE 2
*Number and Rate of Wage Earners in the Main Branches of the
National Economy, 1980–200*

year	Wage earners in agriculture			Wage earners in industry			Wage earners in the tertiary sector		
	number	rate, %	1980= 100,0%	number	rate, %	1980= 100,0%	number	rate, %	1980= 100,0%
1980	958 369	18,9	100,0	2 124 144	41,9	100,0	1 983 142	39,2	100,0
1990	699 258	15,4	73,0	1 712 839	37,8	80,6	2 112 875	46,8	106,5
2001	203 106	5,5	21,2	1 212 615	32,9	57,8	2 274 548	61,6	114,7

Source: Hungarian Central Statistical Office, census data.

After 1990 the bonds between *agriculture and villages* further loosened. This process manifested in *occupational restructuring*: at the time of the 2001 census, only 11% of the wage earners in incorporated villages worked full-time in agriculture (*Table 3*). Obviously, more rural families were connected to the agricultural sector in one form or another - people who retired or have full time employment somewhere else possess farmyards, vineyards or orchards, closed gardens or backyards, breed animals or lease their land, take up seasonal or black work, so in forming the life of villages agriculture has a more significant role than the statistics reveal.

TABLE 3
Occupational structure of incorporated towns and towns, 2001

Name	Wage earners in agriculture		Wage earners in industry		Wage earners in the tertiary sector	
	number	rate, %	number	rate, %	number	rate, %
1. incorporated town	126 918	11,1	436 374	38,1	581 344	50,8
2. towns	76 188	3,0	776 241	30,5	1 693 204	66,5
3. total	203 106	5,5	1 212 615	32,9	2 274 548	61,6

Source: Hungarian Central Statistical Office, census data.

A generation after the end of collectivization the ownership of land restructured again, as well as factory conditions, the relationship between villages and towns, and the agrarium and rural development. After the change of regime in 1990, legislation considered it one of its main tasks to reform collectivized agriculture, enacted laws regulating the transformation and privatization of agriculture and cooperations as well as compensation. Since ideological, political, and supremacy questions were closely connected to collectivization, the laws and regulations aiming to alter the previously set situation also included some of these motives, mainly a certain aversion against cooperations⁷.

The law on transformation of agriculture abolished common property, made it possible for the members to withdraw with the amount of the property they originally contributed to the cooperation. 80% of the land became private property; the size of cooperations shrank to the fragment of their previous size. Limited liability companies or incorporations were founded; the cooperations which still existed could operate on leased lands. Compensation did not restrict the size of the parcels given back, not even the minimum area was stipulated. This way many - some 1.6 million - people received compensation. The average size of the parcels was 0.6 hectare. Parcels of land smaller than 3 hectare counted for 96% of the land distributed. An exceptionally fragmented land structure was created this way. At the turn of the millennium 960, 000 private farms were registered, 70% of which did not reach one hectare in size, while 51,000 landowners possessed a farm larger than 5 ha, this amounted 5% of all land owners. The circles of owners and users were separated; about 60% of cultivated land was leased. Because of this unique ownership structure the majority of landowners did not or only partly lived on agricultural production. Only few people were given the opportunity to establish a flourishing "family economic unit" (at the turn of the millennium the number of farms hardly reached 30,000) and this largely hinders the formulation of modern agriculture, to establish factories with economies of scale takes a long time. The method of "restructuring" cooperations, the land ownership structure created by compensation, the structure of the factories along with other circumstances - such as

shrinking Eastern markets, decrease in exports, decline in national consumption, difficulties in selling, etc. - agriculture and villages found themselves in a difficult situation - at least for the "transitional" period, which seemed to last rather long.

In the 1990s the number of people making their living in agriculture decreased with 600,000, while gross agricultural production (taking 1990=100%, by 2000 the number was below 70%), accounts for only 4.4, 2% of the country's GDP today. Livestock decreased to half of its size, in the 1990s half a million hectare land remained uncultivated, the rate of neglected, past bearing plantations is estimated to reach 30-40%.

During the dissolution process the assets and the tools of the cooperations became obsolete and useless, the termination of the sidelines further decreased work opportunities. The most active integrator, the buyer, processor and seller of agricultural products was lost for villages and agriculture. Small farms were exposed to the mercy of engrossers, food industry and commerce.

The relationship of agriculture and "rural settlements" was rather special: many people work in agricultural production, but very few make a living on it. Nowadays the tertiary sector provides work for more than half of the wage earners in rural settlements, while 38% are employed full time in industry.

Manufacturing industry has almost completely disappeared from the rural areas, partly after the dissolution of mines and factories, partly because some of the previous villages were granted urban status (Lábatlan, Nyergesújfalu, Répcelak, Borsodnádásd, Balatonfüzfő, Herend, Lőrinci, etc.). So the typology of rural settlements cannot be expected to contain the type of "industrial rural settlements". About two-fifth of the wage earners in villages still work in industry, in town factories as commuters. The *rate of commuters* has even increased in rural settlements, however, they commute to do their job in the tertiary sector. This lifestyle is rather common, only in 383 settlements is the rate of commuters lower than 40%, while almost two-fifth of the villages (1095 settlements, 38.1% of the total stock) can be considered as suburbs and residential settlements with more than 70% of out-commuters. Today commuting cannot be seen as a first step towards migration, on the contrary, in most cases it enables the stabilization of the villages.

- The role the *system of basic institution network* plays has changed recently in the settlement development processes, in the life of the settlements and in the differences among them. Scientific publications in the 1970-80s, debates on settlement policies, and our research published in 1982 all clearly state the main factors of rural life are the existence or non-existence of basic supplies and the differences in their levels. The defects in basic supply, the establishment of districts – concentrating basic institutions like elementary schools, general practitioners, local government offices in larger settlements – are responsible for the development of disadvantaged settlements. Subsequently we must emphasize that all this was true under the conditions of full employment. Today, when economic activity is decreasing, the rate of unemployment, the number of dependents and pensioners is increasing, only a small part of agricultural companies are profitable, labor-market conditions, ways for making supplementary income and income conditions got into the center of rural life while the conditions of *basic supply automatically slid back* in the order of importance. Possibilities for *using* them have also changed. On the one hand, the number of institutions providing basic supply has increased - mainly due to the spread of sole traders such as shopkeepers, service providers and craftsmen, - and some local government institutions (schools, kindergartens, notary offices) have also returned to the villages. Changes in communication and transportation have fundamentally changed the accessibility of these institutions.

Radical changes took place in *migration*. More people moved out from the towns to the villages than from the villages to the towns (*Table 4*). This can be partly explained by

stronger suburbanization processes, partly by the number of people moving to villages in anticipation of a cheaper "rural life". Between 2000 and 2005 the number of inhabitants *increased* with 40,000 people (1.1%), while the population of towns decreased with 2.4%.

TABLE 4
Migration balance in towns and villages, 2000, 2003

Year	Migration balance					
	Permanent migration			Temporary migration		
	Budapest	Towns	Villages	Budapest	Towns	Villages
2000	-17 835	-5762	23 597	-541	-977	1518
2003	-19 738	-6708	18 446	1459	1637	-3096

Source: Hungarian Statistical Yearbook, 2003, Budapest, 2004

Our research wished to reveal the types of villages established by these processes and their position.

Methods and results of typification of villages

Society and their morphological-economic processes are *more and more* complex and more and more complicated. The complexity of the phenomena examined by settlement morphological research can only be caught with the help of a great number of data and indicators.

The possible reduction of the index system is questioned by the fact that the individual variables can not be mutually replaced by each other (in a settlement the lack of drinking water cannot be neutralized by the existence of a well-operating community house). While „weighing” the indicators carries the danger of subjectivity. The application of these methods (the importance of individual indicators in the reflection of the researched phenomenon, their weight, their replacability, the multicollinearity) were hindered by the relationship between the *multi-variable data systems handled with traditional "tools"* and the reality they map, and the uncertainties concerning interrelated indicators. If we do not want to give up the advantages of the multi-variant approach, we have to use mathematical-statistical methods which enable us to treat the extraordinary large number of variables and reveal the inner relationships in the system of indicators.

Factor analysis meets all these requirements, this multivariate mathematical-statistical technique is capable to condense the information used into some hypothetical, fictious variables (factors) with the least possible loss, while it reveals the inner laws of the system of indicators and the phenomenon reflected by them. Thus *factor- and cluster-analysis provides a solution for the problem of grouping.*

Data of factor-analysis

Correct basic data, their suitability for measuring the researched phenomenon defines whether the applied models are reliable and suitable for evaluation. This explains that we have to discuss the basic indicators of factor analysis. When comprising the data base, we aimed to make it suitable to determine comprehensive phenomena, to select and separate indicators that do not contain relevant information due to their homogenous distribution. The usefulness of the individual indicators was evaluated on the basis of their occurrences in correlations, the situation of communalities and their grouping into factors. Our experiences show that the 27

indicators applied are sufficient to describe settlement morphological processes. Further additions to the group of indicators are naturally possible but the resulting gain of information would not compensate for the efforts necessary to devise the indicators.

A part of our indicators included into the study also comprise several data (e.g. the indicator of institutions of basic service comprises the existence of 17 basic institutions). In factor analysis, of course, only numerical information can be used. Therefore "derived" indicators are applied to measure the standards of basic supply.

In our analysis the following viewpoints or variables numerifying the viewpoints were regarded (after the indicators the average values and standard deviation data appear):

A) Land use, natural resources

1. The value calculated on the basis of page „The valuation of soil by settlements” in Hungary’s National Atlas (37,9 score; 11,3 score)

B) The position of villages in the system of settlements

2. Population of the village in 2001 (1241 people; 1342 people)
3. Ratio of the population living in the outskirts zone, 2001 (3.3%; 8.2%)⁸
4. Ratio of settlements with population >999 (43.8%; 28.6%)

C) Economic role of villages

5. Ratio of wage earners in industry and construction, 2001 (42.5%; 11.1%)
6. Ratio of wage earners in agriculture, 2001 (7.6%; 7.6%)
7. Number of business partnerships per 10,000 inhabitants, 2001 (12.9; 11.9)
8. Number of enterprises per 1,000 inhabitants, 2001 (31.1; 16.4)
9. Number of registered unemployed, 2001 (5%; 3.4%)
10. Number of out-commuters (from wage earners living on site), 2001 (61.7%; 17.3%)
11. Number of tourism nights per 1,000 inhabitants at all public accommodation establishments, 2001 (415 people; 2537 people)
12. Number of tourism nights per 1,000 inhabitants at paying guest accommodations, village tourism and private accommodations, 2001 (192 people; 1246 people)
13. Number of in-commuters, 2001 (68.3 people; 162.7 people)

D) Transport position of villages

14. Time-distance of larger towns (county seats + medium size towns), 2001 (32.9 min.; 187.7 min.)

E) Basic public services

15. The quality of basic public services, 2001 (11.5 point; 7.6 point)⁹
16. Number of enterprises in the field of commerce and services per 1,000 inhabitants, 2001 (9.1; 6.5)

F) Demographic and social position of villages and income-wealth relations

17. Ratio of the age group 60-x, 2001 (23.5%; 7%)
18. Ratio of people possessing at least a high school diploma from the age group 18-x, 2001 (18.9%; 8.1%)
19. Natural increase and decrease, 1991-2001 (-6%; 3.4%)
20. Ratio of inactive wage earners (pensioner, child care supplement), 2001 (38.4%; 7.7%)
21. Ratio of active wage earners in the total population, 2001 (29.1%; 8.6%)

22. Ratio of white collar workers compared to the total number of wage earners, 2001 (22.9%; 8.5%)
23. Number of motorcars per 1,000 people, 2001 (167.9; 5.1)
24. Ratio of dwellings with 4 or more rooms in the dwelling stocks, 2001 (15.3%; 10.1%)

G) Pace and direction of settlement development

25. Migration, 1990-2001 (80.1%; 231.1%)
26. Changes in the number of the inhabitants in settlements, 1990-2001 (98.3%; 13.8%)
27. Changes in the number of the inhabitants in settlements, 1949-2001 (77.7%; 58.5%)

Results of the factor-analysis

The basis of our data base was a 2875 (number of settlements) x 27 (number of indicators) data matrix. When selecting the most suitable method from the several possibilities, we regarded the following three points most important:

1. information loss should be minimized
2. the factors should be homogenous, and have appropriate regional validity
3. there should be relatively few factors with high information contents in order to facilitate the application on cluster analysis

Finally, we considered the 8-factor variant that we received by using the *principle component analysis* the most appropriate for typifying the settlements. This variant retained 70.19% of the total information content in case of a varimax rotation (*Table 5*).

TABLE 5
Eigenvalue-percentages in case of the 8-factor variant

Factor	Unrotated factors			Rotated factors		
	Eigenvalue	Standard deviation, %	Cumulative, %	Factor	Standard deviation, %	Cumulative, %
1	6,79	25,15	25,15	4,46	16,50	16,50
2	3,15	11,67	36,82	3,06	11,35	27,85
3	2,56	9,48	46,30	3,00	11,13	38,98
4	1,74	6,45	52,75	2,02	7,48	46,46
5	1,56	5,77	58,52	1,98	7,35	53,81
6	1,11	4,10	62,62	1,70	6,29	60,10
7	1,07	3,96	66,58	1,68	6,21	66,31
8	0,97	3,61	70,19	1,05	3,88	70,19

Source: Own calculation.

The values of *communalities* reflect the loss of information that the original indicators suffered during the calculation process. h_j^2 values show that the 13-factor variant in 1982 and the 8-factor variant in 2006 to what percentage defined the total value of standard deviation. The 13-factor analysis in 1982 retained 78.11% of the information, but if we consider the same number of factors (8) only, this number is reduced to 62.82%. At the same time, with the method of principal component analysis in 2006 we were able to keep 70.19% of the information, which could be considered favorable in social sciences.

The usefulness of factor analysis is defined by the extent individual factors can be identified with the state of villages, the ongoing processes. If the structure of factors can explain the differences among settlements, settlement development processes and which

elements define the lives and types of villages to what extent, it can be considered useful. The results of the factor analysis in our present research resulted in factors which are easy to identify, their structure is clear and the information loss is small.

In the order and weight of the factors differentiating the settlements fundamental changes have taken place since the end of 1980s. These changes can be seen in the content and the structure of factors even at first glance.

In our research at the end of the socialist era, processes influenced by the *size of the settlements* and the *standard of basic supply* played the main role in differentiating the villages. They were followed by the occupational structure (labor market situation) and migration. Nowadays labor market situation and factors (indicators) connected to it have the leading role in typifying the settlements. The most recent processes that formulate the settlements and their weight are identified in the structure of factors (*see Table 6*) which was set up after identifying the individual factors.

TABLE 6
The content and name of the factors based on the 1982 and the present research

Factor	(13-factor variant) 1982	(8-factor variant) 2006
F ₁	Settlement structure – basic supply – transport position	Labor market condition – „development“
F ₂	Occupational structure–commuting	Settlement structure – basic supply
F ₃	Pace and direction of settlement development	Demographic conditions
F ₄	Type of natural environment	Dynamics of change in the population
F ₅	Rate of outskirt population	Occupational structure–commuting
F ₆	Pace of occupational restructuring	Touristic conditions
F ₇	Transport position	Rate of outskirt population
F ₈	Tourism, level of settlement development	Agricultural conditions
F ₉	Population	–
F ₁₀	Pace of change in the population	–
F ₁₁	Rate of wage-earners in the tertiary sector	–
F ₁₂	Utility supply – actual population change	–
F ₁₃	Rate of inactive wage-earners	–

Source: Own calculation.

The content of factor F₁, spatial distribution of factorscore values of the settlements

During the six decades following World War 2, at the beginning of 1990s the third period started when the reason for differences among settlements could be explained by different causes. During the 1950-60s major differences were caused by the different economic roles of the settlements and the ratio of migration. These were also reflected in the occupational structure. Due to the changes in the 1960s, the rate of development, the general look of the villages, the lifestyle of the inhabitants, the demographic processes were all less and less influenced by the economic character of the villages. In the 1970-80s several factors connected to the size of the settlements, their location, the possibility of their connection to a dynamically developing region, and the standard of supply defined the characteristic of a settlement, its development and the reaction of its inhabitants. Thus the above elements formulated the demographic process - migration, the age structure of the inhabitants, their erudication and qualification - as well as the state of their environment, etc.

In our present study factor F₁ with its factorscore value of 4.46 contributed to the explanation of the standard deviation with 16.5% (this is the extent how much it formulates the settlements).

Factor F_1 is formulated by the following indicators

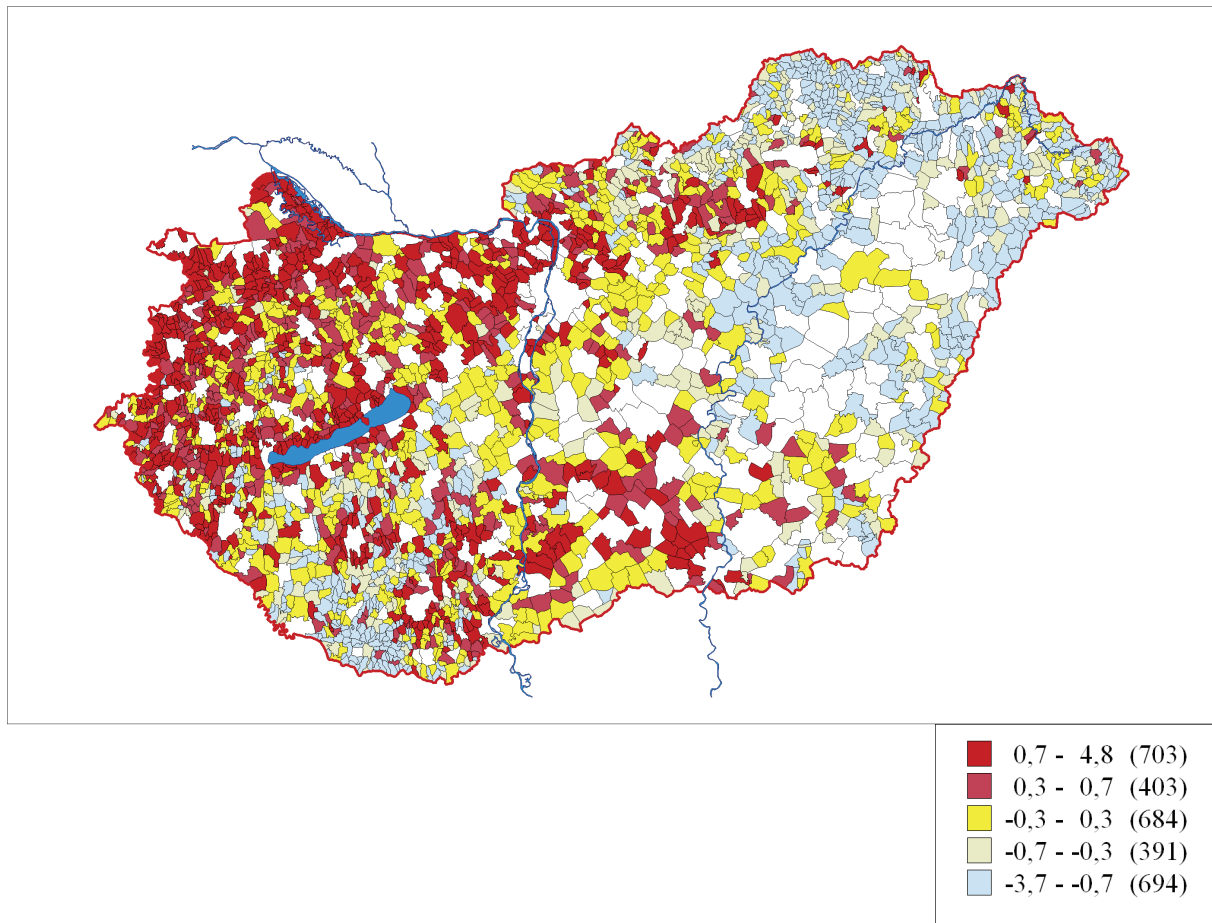
- indicator 21 Ratio of active wage earners factor weight: 0.8064
- indicator 23 Number of automobiles per 1,000 people in 2001 factor weight: 0.7957
- indicator 8 Number of private enterprises per 1,000 people in 2001 factor weight: 0.7419
- indicator 18 Ratio of people possessing high school diploma of population aged 18-x in 2001 factor weight 0.7263
- indicator 9 Ratio of registered unemployed in 2001 factor weight -0.6137
- indicator 24 Ratio of dwellings with 4 or more rooms of all dwellings in 2001 factor weight 0.5912
- indicator 16. Number of businesses in commerce and services per 1,000 people in 2001 factor weight 0.5761
- indicator 7. Number of business partnerships per 10,000 inhabitants factor weight 0.5265
- indicator 14. Travel time to bigger towns (county seats and medium-size towns) in 2001 factor weight -0.4252

Factor F_1 reflects the *labor market situation* (including the density of enterprises) and (in connection to that) the *financial situation of the inhabitants*.

The values of the indicators of factor F_1 - the so-called factorscore values - show remarkable differences according to their location. The majority of settlements belonging to the highest category - with factorscore value above 0.7 - and to the second highest category we established - with factorscore value between 0.3 and 0.7 - are located to the west of the Nagykanizsa - Fonyód - Siófok - Gárdony - Százhalombatta - Budapest axis. Settlements located in the north-east part of the agglomeration of Budapest, in the Vác - Aszód - Budapest triangle also belong to this block.

This region can be characterized by the great number of settlements with high value of F_1 . This high factorscore value also indicates that the labor market situation and the conditions of starting and operating enterprises are outstanding in this region. In Győr-Moson-Sopron County 85% of the settlements have F_1 factorscore-values in the top two categories, while in Komárom-Esztergom, Vas and Zala counties 705 of the settlements belong to them. In this block only along the Celldömölk - Zalaszentgrót axis can we identify a larger inner periphery, while in the center of Zala County, and in Veszprém County, along the Pápa-Zirc line are there settlements with lower F_1 values. We must notice that in this region even small villages and villages with unfavorable transport position show rather high F_1 factorscore values. We also must note that while on the basis of the location of economic organizations specialists concentrate only on the Budapest - Tatabánya - Győr and a Győr - Mosonmagyaróvár axis, the area where the labor market situation is favorable - at least according to F_1 factorscore-values - stretches out to the north-west of lake Balaton, covering that part of the country.

Figure 1.



In the southern Transdanubia only at the shore of lake Balaton and around bigger towns - along the Kaposvár - Dombóvár axis, in the agglomeration of Pécs, near Mohács, Bonyhád and Szekszárd - are there settlements with higher factorscore values.

The region of the Északi-középhegység and its neighborhood used to be abundant in workplaces until recently, however, today most settlements in this area belong to the lowest category considering their factorscore values, only the microregion of Hatvan - Gyöngyös - Eger can boast with more favorable labor market conditions. The southern part of Duna-Tisza köze and the “tanya” scattered farms around the Szeged - Kiskunfélegyháza - Izsák - Kiskunhalas area and Baja show a surprisingly good factorscore value. Probably intensive agricultural production raises the number of active wage-earners and provides possibilities for agricultural enterprises. Tiszántúl, especially its northern part, shows a rather disadvantageous picture based on its F_1 factorscore values reflecting the area's labor market situation. Out of the 211 settlements located in the northern part of the Great Hungarian Plain (Alföld) only 15 (7% of the settlements) belong to the first two categories, while in Hajdú-Bihar County there is none. (*Figure 1*)

Otherwise 703 out of the 2875 incorporated towns (24.5% of the total) belong to the top two categories based on their factroscore values. It is easy to understand that the density of enterprises and the ratio of active wage-earners are high there. The density of enterprises is the highest in west-Transdanubia, which is reflected in the factorscore values. (*Table 7*)

TABLE 7
Number of enterprises in settlements and their density in the regions

Region	Number of operating private enterprises	Number of operating partnerships, total	Number of operating enterprises in the field of commerce and services	Number of private enterprises per 1,000 inhabitants	Number of partnerships per 1,000 inhabitants	Number of operating enterprises in the field of commerce and services per 1,000 inhabitants
Central Hungary (Közép-Magyarország)	20 880	16 004	3 987	40,5	31,0	16,5
Central Transdanubia (Közép-Dunántúl)	18 926	8 093	1 721	39,7	17,0	11,8
Western Transdanubia (Nyugat-Dunántúl)	17 340	6 460	1 491	40,2	15,0	11,3
Southern Transdanubia (Dél-Dunántúl)	14 857	6 014	1 421	34,1	13,8	10,9
Northern Hungary (Észak-Magyarország)	17 966	6 886	1 496	28,6	10,9	8,9
Northern Great Hungarian Plain (Észak-Alföld)	14 691	5 129	1 655	26,0	9,1	9,5
Southern Great Hungarian Plain (Dél-Alföld)	14 540	5 335	1 641	33,1	12,2	11,6
National	119 200	39 809	13 412	34,1	15,4	11,4

Source: Own calculation

It is also clear that factorscore values of factor F_1 are highly influenced by the density of enterprises. (*Table 8*)

TABLE 8
Distribution of enterprises according to the values of F_1

Factorscore-value-category	Number of operating private enterprises	Number of operating partnerships	Number of operating enterprises in the field of commerce and services	Number of private enterprises per 1,000 inhabitants	Number of partnerships per 1,000 inhabitants	Number of operating enterprises in the field of commerce and services per 1,000 inhabitants
0,7 – 4,8	33 570	15 824	1 081	35,8	16,9	10,7
0,3 – 0,7	14 448	5 521	3 960	28,1	10,7	7,7
- 0,3 – 0,3	20 038	7 793	6 024	21,4	8,3	6,4
- 0,7 – - 0,3	9 427	3 407	2 875	20,6	7,5	6,3
- 3,7 – - 0,7	12 067	4 830	3 443	19,1	7,7	5,5
<i>Settlements total</i>	<i>89 550</i>	<i>37 375</i>	<i>26 383</i>	<i>31,1</i>	<i>12,9</i>	<i>9,1</i>

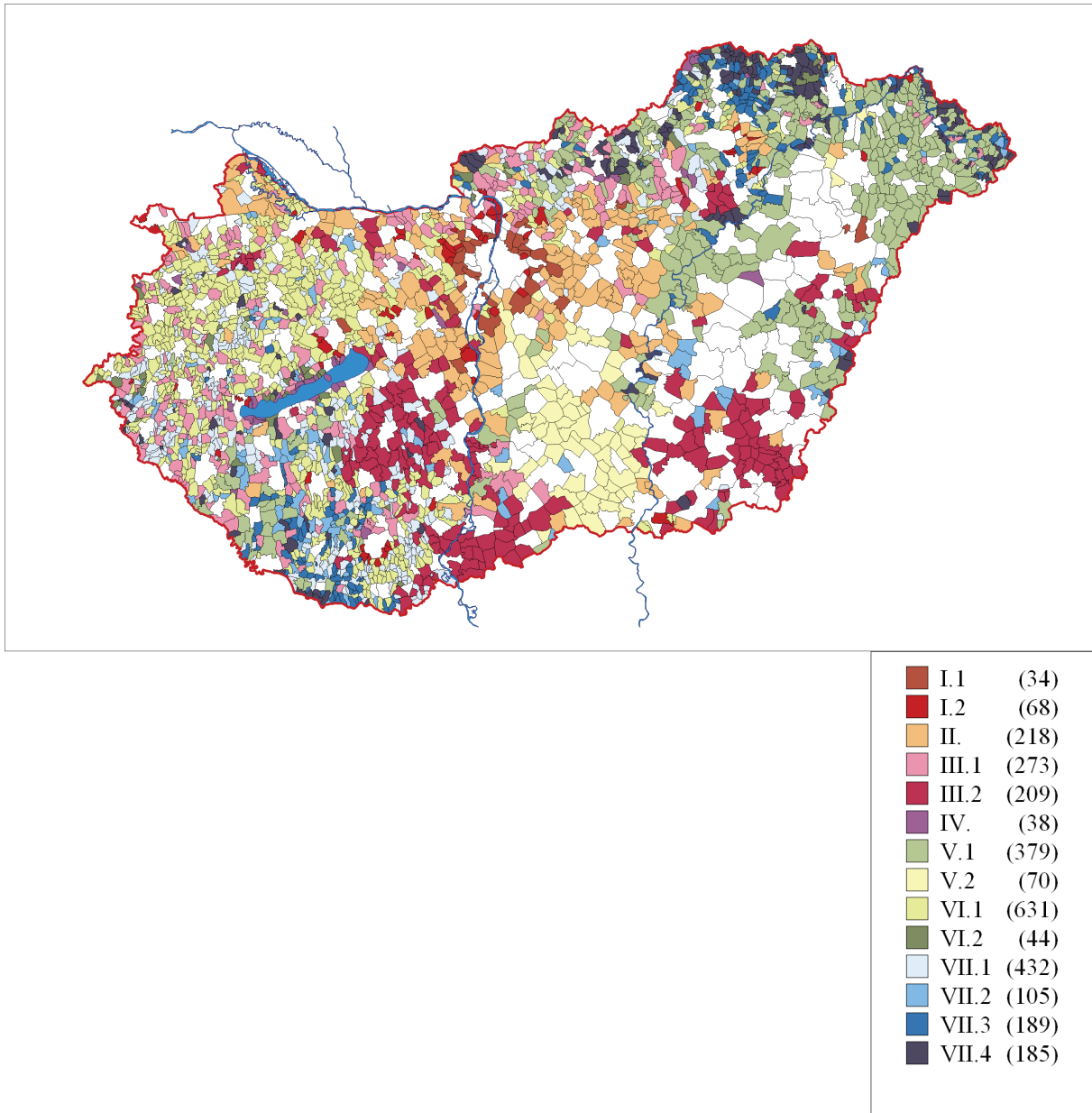
Source: Own calculation

In settlements with 0.3-0.7 factroscore value (in 14% of the settlements) the density of enterprises shows only a slight difference from the values of the previous category and is above the national average, while the values of partnerships show higher standard deviation. 37.7% of the stock of villages in the country (1084 settlements) show either lower than the average F_1 factorscore values (-0.3 - 0.7) or belong to the group of settlements lagging behind (factorscore values: under -0.7). Their location marks the underdeveloped regions of the country rather precisely.

The limited length of this study prevents the authors from giving a detailed description of all the factors, only their names are provided in *Table 6*.

Types of villages

Due to lack of space, we only provide a concise description of the village types established in our research (see Figure 2)



Types I-III.

The first three main types include about 800 settlements occupying a favorable position on the ladder to the *suburbanization-agglomeration process*, out of which some 110-112 settlements have made significant advancement in the process and belong now to the core area of the agglomeration (highly growing population even after 1990, favorable demographic and social structure, urban occupational pattern, high incomes, etc.). Settlements belonging to sub-type I.1 have tripled their population since World War 2 and after 1990 the number of inhabitants increased with one-third, two-fifth of the wage-earners are white-collar workers, the rate of active workers is the highest among all types and two-third of them are commuters. (However, the rate of out-commuters is not the highest in this type - but in one of the disadvantaged dwarf villages - showing that this type developed remarkable "own" economy, the conditions for enterprises are favorable, and the specific values of the enterprises are relatively high.) Only 34 settlements were ranked as "elite" suburbia or clearly agglomerated

settlements in 2001. We must note that many of the settlements formerly belonging to the agglomeration zone were given urban status in the near past, while many of them were annexed to towns after World War 2 - this is how Great-Budapest, Great-Miskolc or Great-Pécs were formed. To subtype I.2 belong settlements rather similar to subtype I.1 but with smaller number of inhabitants, the processes and conditions in them are more modest. The only definite difference between the two sub-types is in the changes in the number of the inhabitants between 1949 and 2001. Settlements belonging to this type (type I) form an unbroken, extended ring only around Budapest. Among the larger towns in the country Pécs is surrounded by several villages of smaller population which belong to type I. Veszprém, Dunaújváros and Miskolc have a few villages in their agglomeration, while surprisingly Győr, Szombathely, Kaposvár, Tatabánya and Salgótarján all lack the agglomeration area.

Even though it is evident that the relatively large number (218) of villages categorized as *settlements in the outer zone of the agglomeration* (type II) do not differ greatly from the previous type, remarkable differences can only be detected in their demographic processes (their population is growing both in long- and in short-term) their society is less urban (the rate of white-collar workers is significantly lower - 25.5% compared to the 39% of the previous type - the rate of people possessing high school diploma is 23% while in type I this number is 37%), income-conditions are less favorable (see the rate of dwellings with 4 or more rooms and the number of motorcars per 1,000 people). Observing the spread of the settlements belonging to the outer zone of the agglomeration, the zone increases around the capital, along the Budapest-Nagykátá-Úszász-Szolnok railway line, towards Jászság, in the Dabas microregion, along the Dunaújváros-Székesfehérvár-Várpalota axis, around and between Győr and Mosonmagyaróvár, and along the Budapest-Hatvan-Füzesabony-Mezőkövesd main railway line. The agglomeration zone around Miskolc increases with 10-12 settlements. We must note that this settlement type does not occur around Szombathely, Zalaegerszeg, Nagykanizsa, Kaposvár or Pécs. This can be explained by the fact that the process of agglomeration could not cope with the dwarf- and small-village structures. The stagnating-declining economy of these towns, their lower demand for workforce and decreasing commuting can explain the lack of settlement type II around Salgótarján (Nógrád County), Ózd, Kazincbarcika (Borsod-Abaúj-Zemplén County), and Komló (Baranya County).

Settlements with residential function belong to type III, while type III.2 collects settlements with mixed (residential, tertiary and agricultural) functions. Settlements in type III. 1 are distinguished from agglomeration types by their demographic processes - their population is increasing even in short-term - and by their location. They are not clustered around centers offering employment possibilities, but are scattered all around in the dwarf village commuting areas. Villages with larger population, more favorable settlement conditions, better social and income conditions belong to this type. They are located mainly in Transdanubia, Nógrád and Heves county, some of them in Szabolcs and Szatmár region. Only very few of them can be found in the Great Hungarian Plain, while none in Hajdú-Bihar, Békés and Csongrád county. It is not so obvious to identify subtype III.2. They are definitely settlements with mixed functions, the rate of local workplaces is significant and the rate of wage-earners working in agriculture is relatively high. Another characteristic is that the roughly 200 settlements belonging to this type can be divided into three larger clusters, mainly in areas with favorable conditions: in Békés and Csongrád, on the loess of the southern part of Tiszántúl - 60% of the settlements belong to this subtype in Békés, - in northern-Bácska (some villages with higher population and good agrarian conditions near Mohács also belong here), and settlements located in the square marked by Dombóvár-Tamási-Sárbogárd-Szekszárd in Tolna (where 44% of the villages are of this subtype).

Type IV

The 38 settlements in type IV were classified as villages with *touristic function and spa resorts* by the merger of four clusters. Their functions gave the settlements their special characteristics, which means a suitable number and a wide variety of workplaces offering good income conditions for the inhabitants. The characteristics and role of the villages is not quite clear. However, we must raise the question that settlements which have significant touristic functions, village tourism, and recreational facilities and still belong to a different cluster should not be placed here or not. This problem especially emerges in the case of settlements in subtype VI.2. (The number of visitors per 1,000 inhabitants at public accommodation establishments is about 4,000 per year; while this number in type IV exceeds 20,000.) The small villages in subtype VI.2 are in rather unfavorable position, e.g. Teresztény (Borsod-Abaúj-Zemplén County) has only 26 (!) inhabitants, 60% of whom are older than 60, the village has lost eight-tenth of its population since 1949, only 4% of the inhabitants are wage-earners and we could go on. We must also note that our indicator system measured the touristic function of the settlements with the number of guests staying at paying accommodation establishments, so people relaxing at their own holiday homes and "temporary" guests at holiday resorts remained unnoticed. Thus, some further settlements might have remarkable touristic functions, but were not included in this type.

Type V

Settlements belonging to type V can mostly be identified as "traditional" villages, even though in subtype V.1 the rate of wage earners in agriculture hardly reaches 6%. The majority of them are located in Szabolcs-Szatmár-Bereg County (nearly two-third of the settlements in the county belong here), along the river Tisza (in Bodroghöz, Taktaköz, Middle Tiszaplain [Közép-Tiszavidék], Tiszazug) and Bihar; some of them are scattered in the area of the Northern Central Ranges (Északi-középhegység). About two dozens of them can be found in Belső-Somogy, but in the area of Győr-Moson-Sopron, Komárom-Esztergom, Tolna, Vas and Zala counties there are only three. Their labor market conditions - especially compared to their size - is definitely bad, the rate of active wage-earners is only 23% (this rate is lower only in the case of dwarf and small villages in unfavorable peripheral position).

Another subtype here is *scattered farm villages*, with high ratio (40% in the average, but in some cases it can be more than 70%) of population in the periphery. As a distinctive feature scattered farm villages are almost exclusively preserved in the Danube-Tisza Interfluve. In the region of Tiszántúl, where there used to be a great number of "tanya" scattered farms, many of them disappeared. Only a few scattered farm villages like Nagycserkesz, Kálmánháza, Nagytőke near Szentés, Cserkeszölő, the scattered farms in Tiszazug (with its Kiskunság-like character combined with a touristic role - a thermal bath) could survive. It must be stated that besides the 70 settlements considered scattered farm villages during the cluster analysis another 15 settlements in the Great Hungarian Plain have 25% of peripheral population, while in another 12 this rate exceeds 20%. Several of them (Örménykút, Kardos, Mezőhék, Székkutas and Csabaszabadi in Békés, Tompa in Bács-Kiskun County) are typical scattered farm villages.

Types VI and VII

Settlements belonging to this type are *dwarf and small villages*. Their average number of population does not reach 1,000. The main differentiating factor among them is labor market conditions. Small villages with favorable labor market conditions - the rate of active wage-earners of the total number of wage earners is 34.5%, the same rate as in the outer zone of agglomeration. Although they do not provide enough workplaces on the site, but the majority of their wage earners could become commuters in regions with favorable economic conditions. Their society is stable, their living standard is average. In these settlements the main defining feature is the "opposition" between the size of the settlement and its labor market conditions. Most of them are located in the small village region of Transdanubia. In Vas County 56%, in Győr-Moson-Sopron and Veszprém county 47% and in Zala 34% of the settlements belong to this type. (More than 60% of the 631 settlements in type VI.1 can be found in these four counties.) Type VI.2 includes dwarf villages with unfavorable position but with significant touristic function (only 44 villages are classified as this type).

The losers of settlement development processes are gathered in type VII. The situation of small villages became harder in the 1960s and '70s (the number of small villages with population lower than 1,000 was 1583 in 1970, and 1719 in 2004). Their official judgment from the settlement development point of view has been negative since the beginning of the 1950s. Settlement planning schemes which were first introduced at the end of the 1940s considered only the villages' economies of scale. The thread of these thoughts is as follows: the starting point of the arguments is that "the larger the number of inhabitants, the better and more economical the supply of a settlement is", so "one of the most important economic efficiency questions in forming an agricultural settlement network is: what transport costs does the concentration of population necessitate to cultivate the land?" After considering these measurements they stated that "according to present average social demands, villages with population lower than 900-1,000 people are unviable and not capable for development even temporarily under the conditions of the socialist society." Even villages with 900-1,500 inhabitants represented "temporarily existing settlements with few basic public institutions, without public utilities - except for street-lighting" in the eye of settlement planners. Considering some public institution network and public utilities - especially sewage-system - parameters they came to the conclusion that "villages with population of 3,000 are the smallest type of socialist villages". (Perczel, K - Gerle, Gy.:1966)

These ideas were included even in a study completed in 1963 titled "Plans for settlement network development". The monography distinguished district centers, "satellite"-villages (villages which were connected to a larger administrative center) and *ceasing villages* among the settlements. This plan, however, did not reach the enactment phase. The "National Settlement Development Concept" (NSDC) which came into force in 1971 used more precise phrasing. On the level of settlements it distinguished (1) lower level centers of high priority, (2) lower level centers, (3) partial lower level centers and (4) "settlements without central functions" ("other" settlements, whose number exceeded 2,000 [!]) The NSDC also referred to branch rationalization when it sorted the settlements into different development categories: "Settlements and central villages must be designated to be economic centers of large industries and be seats of basic supply institutions whose economical operation is connected to the number of inhabitants. These settlements can develop into the region's center of organization and attraction zone" [*own translation*].

While evaluating the effect of settlement policy it has to be taken into consideration that the state of small villages is influenced by the development procedures, conditions and the geographic position of production forces as well as by technical opportunities (e.g.

opportunities provided by traffic), by developments in property relations and by the developments in social-individual demand for basic supply. In all, it can be stated that the situation of small villages is also influenced by *objective* processes. With a view to our field of research the following settlement-formulating processes not belonging to settlement policy have to be mentioned: a plummeting demand for workforce in agriculture after World War II (In 1945 53.8% of all active wage-earners were employed in agriculture. The same figure in 2001 amounted only to 5.5%), excess agricultural labor force after the nationalization of agricultural production (establishment of co-operative farms), land-owning peasants had decreasing economic interests related to their land and their emotional relation to their land also became looser, rocketing labor demand in industrial production and in mining after 1948, overall availability of commuting due to developments in public transport. The state of small villages was made worse by the following facts: first, their traffic position was worse than the one of larger villages – there was a lower number of transport services and the railway stations were situated farther. Secondly, in the regions with small-village settlement structure the central offices of co-operative farms were moved to larger villages. There they provided more job opportunities. The institutional network of small villages had been poor even before the system of districts was introduced; they hardly provided any job opportunities for qualified labor; thus, those having pursued secondary and higher studies could not return to their native village.

The moving of basic institutions (school, local council, central offices of co-operative farms) into the so called central villages, into seats of local councils, made the situation in small villages regarding basic supply even more unfavorable and it made the intellectuals leave. The inhabitants noted that in order to get to a higher level in social hierarchy there was a need to move up in settlement hierarchy as well (moving to settlements, which were higher on the settlement hierarchy, commuting and this way being connected to a workplace in the town, sending the growing-up generation into towns etc.). It were the families in small villages that had no choice but to move to towns, agglomerations, to settlements with a higher population. Moving off from villages gained pace in the 1960s and 1970s (The last inhabitant left the dwarf village of Gyűrűfü in Baranya County in 1972. Further cessations of villages were disguised by manipulations in public administration.) Moving off in those decades was selective: mainly those had a chance to move that were well-off, who were qualified laborers or those who were young. Thus, the proportion of the elderly, pensioners, the unhealthy and those with low qualifications (consequently with low income) among those who had not moved was increasing gradually. During the socialist era there was hardly anyone who moved into any of the small villages. If it happened so, they made the conditions in these villages even worse. The value of real estates went down. Those happening to go along could see only uninhabited houses, abandoned and uncared for yards and gardens growing wild. The social structure of small villages so to say *depreciated*, and this resulted in a further increase in the degree of moving off. This meant that the unfavorable conditions in small villages were not a consequence any more but a reason for moving away. It was rather rare that these small villages could get out from the vicious circle of *unfavorable position and status* → *moving off* → *increasingly unfavorable social structure* → *increasing degree of moving off*. The degree and direction of migration were in proportion with the size of settlements. Hundreds of villages became only shadows of the settlements once they used to be. The unfavorable demographic processes seemed to be irreversible, also for the reason that due to the ageing of the inhabitants, population was also decreasing naturally in small villages.

Finally we would like to emphasize that the typification of the villages presented here is not the final part of one stage in the examination of Hungarian villages, but the foundation of the research, setting directions. It is obvious that a great number of further empirical research is needed in Hungarian geography to be able to paint an expressive picture about the Hungarian stock of villages, and about their ongoing processes.

Notes

1. In 1945 35% of the agricultural land in the country, i.e. 3.2 million hectares were redistributed among 600,000 agricultural laborers, day-laborers and peasants who previously had not owned a piece of land or owned only a dwarf farm. Each land estate that was bigger than 1,000 kh. (1,000kh. = approximately 580ha. (hectare)), and the part exceeding more than 100kh. of each land property between 100 and 1,000kh. in size was redistributed. Those gaining redistributed lands got 5.1kh (2.9ha.) of land in average. There was a county in the country whose 56% of its land was redistributed (Fejér County).
2. By the acceptance of the idea of *collective guilt*, in accordance with the resolutions of the Potsdam Conference approximately 240 thousand German speaking citizens were deported from Hungary between the January of 1946 and the end of 1948. This was half of the German speaking population of Hungary before World War II. 170 thousand of these people were moved to the later Federal Republic of Germany, 55 thousand of them to the future German Democratic Republic and 15 thousand to Austria. In those parts of the country, where the majority of population had been German, such as in Baranya and Tolna Counties, in Bácska and in some places near the capital some villages became practically depopulated.
3. In 1980 in 42.2% of the villages 60% of the wage-earners had a workplace in another settlement (In comparison, the corresponding proportion in 1960 amounted only to 1.4%). At the same time, the proportion of villages where the percentage of commuters was under 10% was only 2.8%.
4. After the communist takeover the Party of Hungarian Workers urged a so called *voluntary co-operation* at its First Congress in 1948. Later, at their congress held in 1951 they set complete collectivization as their aim. They used a wide range of so called *persuasion* methods, such as violence and different actions aimed to paralyze individual, private farming (e.g. the tax on individual farming tripled between 1949 and 1955; for smallholders they introduced obligatory contribution in kind and state controlled prices etc.). However, at the end of 1950 only as many as 13% of the lands were cultivated by co-operative farms. In the first wave of collectivization it was the landless, the wageworkers and the so called new farmers who joined co-operative farms, who got their land during the land reform. During the Revolution and War of Independence in 1956 half of the co-operative farms were dissolved and obligatory contribution in kind was cancelled; yet, the new communist state leadership did not give up their efforts to collectivize. Between 1951 and 1961 there were campaigns that resulted in the dissolution of individual farming, and two thirds of agricultural lands got into the ownership of so called collective farms. State farms also owned a significant part of the lands (Table 1.)

Ownership of cultivated agricultural lands, 1970

Form of ownership	Their proportion in agricultural lands, %
1. State farms	26,1
2. Collective farms out of this subsidiary husbandry on the plot*	67,9 3,8
3. Marginal farms	4,8
4. Individual farms	1,2

* *In the ownership of collective farms, but used by members of collective farms for individual cultivation, for individual purposes (Usually 1kh. for a member)*

5. Council: Name of the local council and of the institution of local public administration between 1950 and 1990. Their local authority was rather low in fact; primarily they served as local branches of state control. In the 3,004 Hungarian villages in 1980 there were 1,071 councils, since some of them had several villages under their authority. At the same time, the number of town councils (and) townships was 96.
6. The Law on Local Authorities passed in 1990 decreased the sphere of counties' authority; it wound up the urban areas, which earlier had replaced districts. Local governments became the major actors of the municipality system. Each settlement has a right to vote for a local government (local council, mayor). Since each settlement kept its independence (administrative territory, name, statistical records etc.) even after the setting up of common councils, in the new administration system even the smallest village could have its own local government. (In 1990 there were 71 villages with a lower population than 100, and in 6 villages the number of inhabitants did not reach 25.) Joint administrative offices were wound up; however, smaller villages could use common district notaries for their conduct of affairs. Depending on their financial state, local governments have the right to set up and maintain institutions (e.g. kindergarten, basic school, local practitioner etc.) Each local government is a separate budgetary unit. The major changes in the way of financing local authorities, and the fact that each settlement (re)gained the right to have an own local government has brought several changes: settlements now have more equal opportunities, the relations between settlements have become less hierarchical, and settlements are in a less advantageous or disadvantageous position due to their legal status.
7. As the agrarian economist, *Attila Buday-Sántha* put it down, "...ideology was given preference over economic rationalism", and "... the passing of new laws which influenced the future of agriculture, reflecting the political power relations, was guided by an idealized past and by trying to comply with Western European requirements at the same time. International competitiveness of the agricultural sector and complex rural development were completely thrust to the background. During the transformation of agriculture, "...politicians looked on existing agricultural companies as economic and political remains of socialism, and they fought a relentless ideological and economic war against them" (*own translation*) (Buday-Sántha A. 2001).
8. On the territory of Hungarian settlements different areas are determined: contiguously built-up areas (inner settlement), and areas outside the inner settlement (outer areas), where there can be some isolated buildings or scattered settlements. In some areas of the

country a significant proportion of the population lives in outer areas, on “tanya” scattered farms. (See 1. below.)

9. We worked with 17 institutions, and with their weighted value. These were the following (the numbers in the brackets are the weighted values of each): 1. Seat of notary, district notary (3), 2. Post office (1), 3. Market place (2), 4. Clothes shop (1), 5. Hardware store (1), 6. Pharmacy (2), Seat of local practitioner (2), 8. Kindergarten (2), 9. Basic school (with up to 8th grade classes) (3), 10. Basic school (with up to only 4th grade classes) (2), 11. Filling station (1), 12. Dentist’s (1), 13. Old people’s home (1), 14. Restaurants, confectioneries (1), 15. Hotel, guesthouse (2), 16. Existing co-operative farm (2), 17. Parish, rectory (1).

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