**CENTRE FOR REGIONAL STUDIES
OF HUNGARIAN ACADEMY OF SCIENCES**

DISCUSSION PAPERS

No. 66

Changing Village-Typology of Rural Settlements in Hungary at the Beginning of the Third Millennium

**by
Pál BELUSZKY – Tamás SIKOS T.**

Series editor
Gábor LUX

**Pécs
2008**

ISSN 0238–2008
ISBN 978 963 9899 02 5

2008 by Centre for Regional Studies of the Hungarian Academy of Sciences.
Technical editor: Ilona Csapó.
Printed in Hungary by Sümegi Nyomdaipari, Kereskedelmi és Szolgáltató Ltd., Pécs.

Contents

1 Introduction 5
2 The effects of “the change of regime” on rural settlements 7
3 Methods and results in the classification of villages 14
3.1 Data of factor analysis 14
3.2 Results of the factor analysis 16
3.3 The content of factor F_1, spatial distribution of factorscore values of the settlements 18
3.4 Factors F_2 and F_3 25
4 Village types 28
4.1 Types I–III 28
4.2 Type IV 35
4.3 Type V 35
4.4 Types VI and VII 36
5 Conclusions 41
5.1 General remarks 41
5.2 Macro village regions 44
Bibliography 53

List of figures

Figure 1 Map of Hungarian public administration 20
Figure 2 Factor values of the villages in the F_1 factor 21
Figure 3 Factor values of the villages in the F_2 factor 27
Figure 4 Factor values of the villages in the F_3 factor 29
Figure 5 Village typology of Hungary 33
Figure 6 Macro village regions in Hungary 46

List of tables

Table 1 The status of settlements in the administrative system, 2004 9
Table 2 Number and Rate of Wage Earners in the Main Branches of the National Economy, 1980–2000 10
Table 3 Occupational structure of incorporated towns and towns, 2001 11
Table 4 Migration balance in towns and villages, 2000, 2003 13
Table 5 Eigenvalue percentages in case of the 8-factor variant 17
Table 6 The content and name of the factors based on the 1982 and the present research 18
Table 7 Number of enterprises in settlements and their density in the regions 23
Table 8 The distribution of enterprises by the values of F_1 24
Table 9 Number of inhabitants in settlements and the score of their basic provision in the different categories of the factorscore values in F_2 26
Table 10 Types of rural settlements 30
Table 11 Selected important data of the types of rural settlements 32
Table 12 Changes in the population of selected villages, 1870–2001 39
Table 13 Types of rural settlements by counties 45

1 Introduction

With the change of regime in Hungary (1989–1990), not only was the autocratic, state-capitalist "socialist" regime replaced by the political system of the democratic market economy, but also, fundamental changes have undergone in the processes forming rural settlements. The rate of agricultural population kept decreasing; the majority of agricultural factories fell apart or was reorganised, so that private farming could gain ground. These processes alongside with the changes in the availability of basic services and in the structure of the labour market shaped the image 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 – pre-industrialisation – 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, overlapping living and workplaces, 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-emerging 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 such as *land distribution*[1] and in some parts and some settlements of the country, the forcible *relocation*[2] of

[1] In 1945, 35% of the agricultural land in the country, i.e. 3.2 million hectares were redistributed among 600,000 agricultural labourers, day-labourers and peasants who previously had not owned a piece of land or owned only a dwarf estate. Each land estate that was bigger than 1,000 kh. (1,000kh. = approximately 580 Ha), 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 (2.9 ha.) of land in average. There was a county in the country where 56% of agricultural 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 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 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

the *German* (Swabian) *ethnic* part of the population. 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 revealed by 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 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 a fifth or tenth of their former size (for example Gyűrűfű, a small hamlet in Southern Transdanubia with 253 inhabitants in 1949, had been completely depopulated by 1972, becoming a symbolical "victim" of the migration process). It is also merely statistical data that *two-fifth of the wage earners in villages became commuters*, with all of its advantages and disadvantages.[3] The far-reaching effects of collectivisation and the fact that only 4.5–5% of the land was cultivated within a private farm system (private gardens on community land, backyards, land given by cooperatives to their workers for 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 when previously self-employed farmers become employees, or abandoned their villages and moved into towns to become urban citizens living in blocks of flats. Further changes in society, lifestyle and economy (disintegration of village communities, the alteration of roles in the family, spectacular improvement in the equipment of dwelling places) cannot be enumerated here. All these happened *over the lifetime of no more than* one generation. The extraordinary speed of the changes (the industrial society emerged in only 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 was strongly differentiated: in the neighbourhood of the big cities and prosperous agricultural cooperatives, relatively wealthy, growing settlements emerged; while in depressed areas, villages started to decline rapidly and were hit by depopulation, demographic erosion, ageing population and the accumulation of socially disadvantaged people (*Beluszky – Sikos T.,* 1982).

While 1948 was a "decisive" year with the complete dominance of Communism, the years of 1989–1990 brought a change of regime. Its effect on the stock of rural settlements was almost as (?) deep and far-reaching as those of the events

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%.

after 1948.[4] We are starting from the assumption that the change of direction after 1990 affected the villages less dramatically, 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 one hand, these processes were not forced as much as the cases of relocation or collectivisation; on the other handr, becoming unemployed is a forced, involuntary process.

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

After the establishment of the political, legal and proprietary conditions of the market economy, villages entered the *market of settlements*. Even if the possibility of influencing the local development of settlements by external, governmental instruments has not been eliminated (a rather high ratio of the means to operate local governments is distributed and allocated from the national budget, low rate of local tax revenues, regional development activities), several changes increased the possibilities for local autonomy. The economy and even the site selection of services are ruled by market conditions. The different features of settlements, such as their geographic and transport position, their natural resources and environmental conditions, their labour market positions and the condition of the society as well as their purchasing power all influence their course of development, their economy and their success or failure. The higher degree of choice increases the importance and efficiency of personal endowments in the operation of the settlements (the innovative potentials of local society, their willingness and knowledge to establish

[4] After the communist takeover, the Hungarian Working Peoples' Party urged for so-called *voluntary co-operation* at its First Congress in 1948. Later, at their congress held in 1951, they set complete collectivisation as their aim. They used a wide range of so-called *persuasion* methods, such as violence and different actions aimed to paralyse individual, private farming (e.g. the tax on individual farming tripled between 1949 and 1955; for smallholders, obligatory contribution in kind was introduced; prices became state controlled etc.). However, at the end of 1950, only as much as 13% of the land was cultivated by cooperative farms. In the fist wave of collectivisation it was the landless, the wageworkers and the so-called new farmers who joined cooperative farms, who got their land during the land reform. During the Revolution and War of Independence in 1956, half of the cooperative farms were dissolved and obligatory contribution in kind was cancelled; yet, the new communist state leadership did not give up their efforts to collectivised. 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 agricultural land: by 1970, 26.1% was managed by state farms, 67.9% by cooperatives (of which 3.8%, usually 1 kh. per member, was in collective ownership but cultivated individually for personal purposes), 4.8% by marginal farms and only 1.2% by individual farms.

businesses, the local elite, the strategy and ability of the leaders of the local government etc.)

While in the system of governing *councils*[5], the funding of local councils was regulated 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 benefits), 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 governance character of the incorporated towns have increased.

The process of granting urban status to incorporated towns speeded 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-thirds of the country's population lives in settlements with urban status. A part of them does not perform urban functions. The present (2007) status of the settlements in the administrative system is described in *Table 1*.

This partly means that a certain type of rural settlements categorised by 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 rural areas, but they are rural settlements themselves.

---

[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 Act on Local Authorities passed in 1990 decreased the authority scope of counties; replacing 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 set 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.

Table 1

The status of settlements in the administrative system, 2004

The status of settlements in the administrative system	Number	% in the total number of settlements
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.

The first years of the political-social changes passed amidst a severe *economic recession.* The number of industrial wage earners decreased by 540,000 between 1988 and 1993 (this is 3% of the number in 1988), while the total number of the employed decreased by 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 restructuring also took place; the number and rate of agricultural wage earners decreased faster than those of industrial wage earners, while both the number and rate of wage earners in the tertiary sector increased (*Table 2*). Declining production led to closing down several 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 (rustbelts) were formed consisting not only of mining and industrial settlements and towns, but their commutation zones as well. Large, continuous 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, Nógrád County and several mining areas in the Dunántúli-középhegység (Transdanubian Central Range). Decreasing production raised a new problem: *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 micro-regions it reached even a ratio of 50%. (By the census data in 2001, there was a rural hamlet 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 micro-regions, the formulation of crisis areas resulted in a rather unfavourable situation of some rural settlements. Economic recovery came in the second part of the 1990s as the decrease of real incomes stopped and 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 towns has also restructured. This means that the structure of settlements did not return to the structure before 1990, as a significant restructuring process has taken place.

Table 2

Number and Rate of Wage Earners in the Main Sectors of the National Economy, 1980–2000

Year	Wage earners in agriculture			Wage earners in industry			Wage earners in the tertiary sector		
	number	ratio, %	1980 = 100,0%	number	ratio, %	1980 = 100,0%	number	ratio, %	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 bound to the agricultural sector in one form or another – people who retired or had full time jobs somewhere else possess farmyards, vineyards or orchards, closed gardens or backyards, breed animals or lease their land, undertake seasonal or black work, so in forming the life of villages agriculture has more significant role than it could be revealed by the statistical figures.

A generation after the end of collectivisation the ownership of land restructured again, as well as the proprietary system of factories, the relationship between villages and towns, as well as agrarian and rural development. After the change of regime in 1990, legislation considered it one of its main tasks to reform collectivised agriculture, enacted laws regulating the transformation and privatisation of agriculture and cooperatives as well as compensation. Since ideological, political, and supremacy questions were closely associated with collectivisation, the laws and

regulations aiming to alter the previously set situation also included some of these motives, mainly a certain aversion against cooperatives.[7]

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	ratio, %	number	ratio, %	number	ratio, %
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.

The Act on the Transformation of Agriculture abolished the common property of cooperatives and entitled their members to withdraw with the amount of the property they originally contributed. 80% of the land became private property; the size of cooperatives shrank to a fragment of their previous size. Limited liability companies or incorporations were founded; the cooperatives 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. In such a 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, amounting to 5% of all landowners. A group of landowners and users was formed; 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 farming. Only few people had the opportunity to establish a flourishing "family-sized economic unit" (at the turn of the millennium, the number of farms hardly reached 30,000), and this largely hinders the emergence of modern agriculture; to establish factories with economies of scale takes a long time. The

[7] As the agrarian economist *Attila Buday-Sántha* put it, "…ideology was given preference over economic rationalism", and "… the passing of new laws which influenced the future of agriculture, reflecting political power relations, was guided by an idealized past and by trying to comply with Western European requirements at the same time. The 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" *(Authors' translation)* (*Buday-Sántha, A*. 2001).

method of "restructuring" cooperatives, the land ownership structure created by compensation, the structure of the factories along with other circumstances – such as shrinking Eastern markets, decreasing export, declining domestic 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 by 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 hectares of 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 cooperatives became obsolete and useless, the termination of sidelines further decreasing job opportunities. The most active integrators, the buyers, processors and sellers of agricultural products were lost for villages and agriculture. Small farms were exposed to the mercy of engrossers, food industry and commerce.

The relationship of agriculture with "rural settlements" is 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 wage earners in rural settlements, while 38% are employed full time in industry.

Manufacturing industry has almost completely disappeared form rural areas, partly after the dissolution of mines and factories, partly because some of the previous villages were granted urban status (Lábatlan, Nyergesújfalu, Répcelak, Borsodnádasd, Balatonfűzfő, Herend, Lőrinci etc.). So the typology of rural settlements cannot be expected to contain the type of "industrial rural settlements". About two-fifth of rural wage earners 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 is not considered as a first step towards migration; on the contrary, in most cases it enables the stabilisation of the villages.

The role *of a basic institutional network* 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 and 1980s, discourses on settlement policies, and our research published in 1982 all clearly state that 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 services, the establishment of districts – concen-

trating basic institutions like elementary schools, general practitioners, local government offices in larger settlements – are responsible for the development of disadvantaged settlements. Subsequently we must emphasise 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, labour-market conditions, ways for making supplementary income and income conditions got into the centre of rural life while the conditions of *basic services automatically* dropped in the order of importance. Possibilities for *using* them have also changed. On the one hand, the number of institutions providing basic services has increased – mainly due to the spread of sole retailers such as shopkeepers, service providers and craftsmen, – and some local government institutions (schools, kindergartens, notary offices) have also returned to the villages. The new circumstances of communication and transportation have fundamentally changed the accessibility of these institutions.

Radical changes took place in *migration*. More people outmigrated from the towns to the villages than from the villages to the towns (*Table 4*). This can be partly explained by stronger suburbanisation 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* by 40,000 people (1.1%), while the population of towns decreased with 2.4%.

Our research was aimed at revealing the types of villages established by these processes and their position.

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	–5,762	23,597	–541	–977	1,518
2003	–19,738	–6,708	18,446	1,459	1,637	–3,096

Source: Hungarian Statistical Yearbook, 2003, Budapest, 2004.

3 Methods and results in the classification of villages

Society and its spatio-economic processes are *getting more and more* complex and complicated. The complexity of the phenomena examined by settlement morphological research can only be identified by 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 neutralised 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 representation 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 extraordinarily large number of variables and reveal the inner relationships within the system of indicators.

Factor analysis meets all these requirements; this multivariant-based mathematical-statistical technique is capable at condensing the information used into hypothetical, fictious variables (factors) with the least possible loss, while it reveals the rules of the system of indicators and the phenomena reflected by them. Thus, *factor and cluster analysis provide a solution for the problem of grouping.*

3.1 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 why we have to discuss the basic indicators of factor analysis. When compiling the database, 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 information gained would not compensate for the efforts necessary to devise the indicators.

A part of our indicators included in 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 services.

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

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 settlement system

2. Population of the village in 2001 (1241 people; 1342 people)
3. Ratio of the population living in the outskirt 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 visitor nights per 1,000 inhabitants at all public accommodation establishments, 2001 (415 people; 2537 people)
12. Number of visitor 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.)

[8] On the territory of Hungarian settlements, different areas are determined: continuously built-up areas (inner settlement), and areas outside the inner settlement (outskirts), with some isolated buildings or scattered settlements. In some areas of the country a significant proportion of the population lives in outer areas, on "tanya" or scattered farmsteads.

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 allowance), 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 cars per 1,000 people, 2001 (167.9; 5.1)
24. Ratio of dwellings with 4 or more rooms in the dwelling, 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%)

3.2 Results of the factor analysis

The basis of our database 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 as the most important:

1. information loss should be minimised
2. the factors should be homogenous, and have appropriate regional validity

[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. Marketplace (2), 4. Clothes shop (1), 5. Hardware store (1), 6. Pharmacy (2), Seat of local practitioner (2), 8. Kindergarten (2), 9. Primary school (with up to 8th grade classes) (3), 10. Primary school (with up to only 4th grade classes) (2), 11. Filling station (1), 12. Dentistry (1), 13. Old people's home (1), 14. Restaurants, confectioneries (1), 15. Hotel, guesthouse (2), 16. Existing collective farm (2), 17. Parish, rectory (1).

3. there should be relatively few factors with high information content 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 method 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: Authors' 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 should be considered favourable 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 in the final decade of the socialist era, processes influenced by the *size of the settlements* and the *standard of basic services* played the main role in differentiating the villages. They were followed by the occupational structure (labour market situation) and migration. Nowadays, labour market situation and factors (indicators) associated with 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 services – transport position	Labour market condition – "development"
F_2	Occupational structure–commuting	Settlement structure – basic services
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.

3.3 The content of factor F_1, 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 1950s and 1960s, 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 appearance of the villages, the lifestyle of inhabitants, the demographic processes were all less and less influenced by the economic character of the villages. In the 1970 and 1980s, several factors

arising from the size of the settlements, their location, the possibility of their connection to a dynamically developing region, and the standard of supply defined the character 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 education and qualification – as well as the state of their environment etc.

In our present study, factor F_1 with its factorscore value of 4.46 contributed to the explanation of the standard deviation with 16.5% (this is the extent to which it formulates the settlements).

Factor F_1 is formulated by the following indicators

– indicator 2.	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 a high school certificate of the population aged 18– 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 1	Travel time to bigger towns (county seats and medium-size towns) in 2001	factor weight: –0.4252

Factor F_1 reflects the *labour 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 a 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 (for an administrative overview map, see *Figure 1*; for F_1 values, see *Figure 2)*.

This region can be characterised by a great number of settlements with high values of F_1. This high factorscore value also indicates that the labour 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

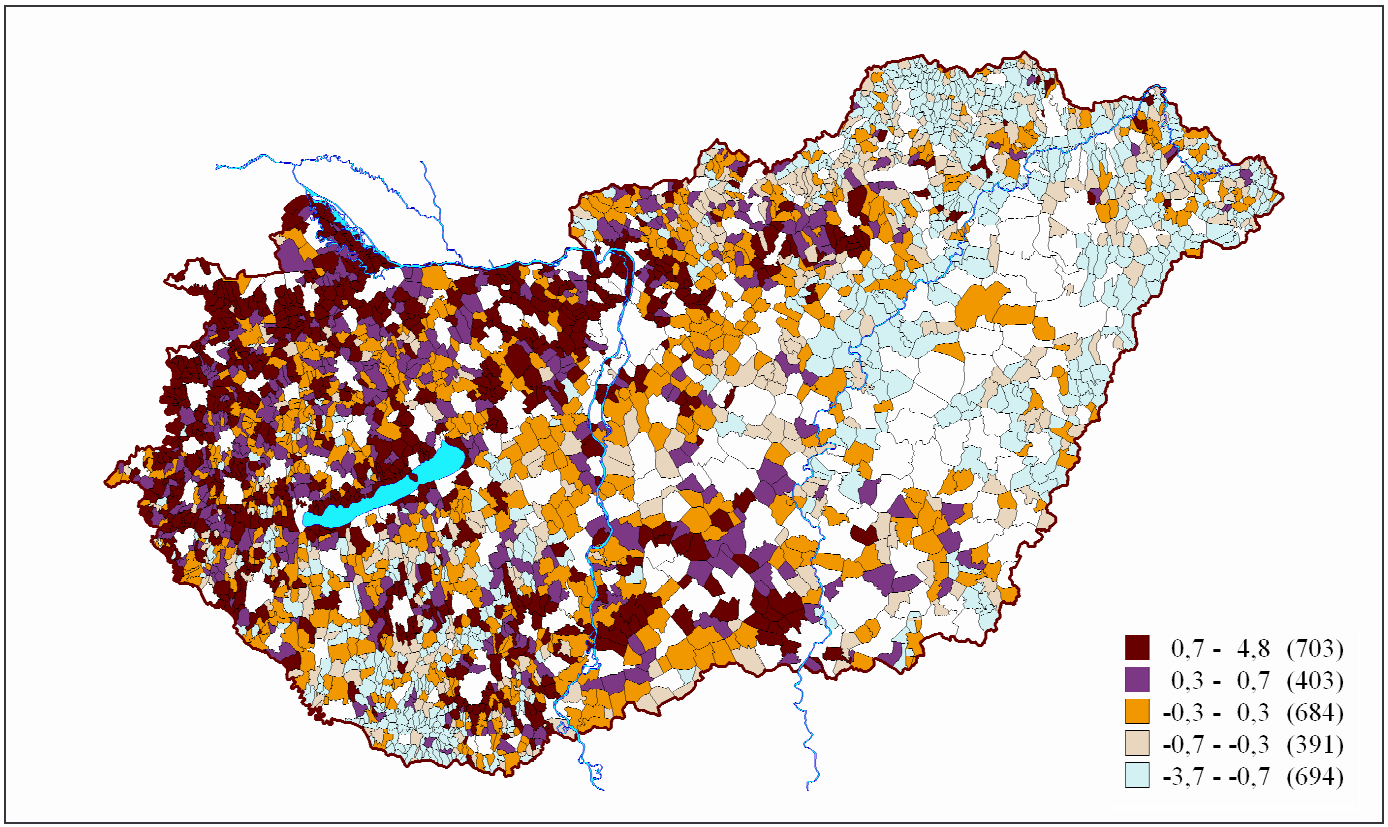
Figure 1

Map of Hungarian public administration

Source: Authors' construction.

Figure 2

Factor values of the villages in the F_1 factor



Source: Authors' construction.

in the centre 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 unfavourable transport position show rather high F_1 factorscore values. We must also note that while on the basis of the location of economic organisations, specialists concentrate only on the Budapest – Tatabánya – Győr and a Győr – Mosonmagyaróvár axis, the area where the labour market situation is favourable – at least according to F_1 factorscore-values – stretches out to the north-west of lake Balaton, covering that part of the country.

In 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 Northern Hungary and its neighbourhood used to be abundant in workplaces until recently; however, today most settlements in this area belong to the lowest category considering their factorscore values and only the micro-region of Hatvan–Gyöngyös–Eger can boast of more favourable labour market conditions. The western part of the Southern Great Plains region and the scattered farmsteads around the Szeged–Kiskunfélegyháza–Izsák–Kiskunhalas area and Baja show a surprisingly good factorscore value. It is probably intensive agricultural production that increases the number of active wage-earners and provides opportunities for agricultural enterprises. The Northern Great Plains and eastern half of the Southern Great Plains (together comprising the geographic unit Tiszántúl, or East Hungarian Plain), show a rather disadvantageous picture based on their F_1 factorscore values, reflecting the area's labour 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 are none (*Figure 2*).

Otherwise 703 out of the 2875 incorporated villages (24.5% of the total) belong to the top two categories based on their factroscore values. It is easy to notice 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 by the factorscore values (*Table 7*).

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

In settlements with a 0.3–0.7 factorscore 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.

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: Authors' calculations.

Table 8

The distribution of enterprises by 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
Settlements total	89,550	37,375	26,383	31.1	12.9	9.1

Source: Authors' calculations.

37.7% of villages in the country (1084 settlements) show either lower than 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.

3.4 Factors F_2 and F_3

With its eigenvalue level of 3.06, factor F_2 condenses 11.35% of the total information. It is based on the following indicators:

– indicator 2.	Population of the village, 2001	factor weight: 0.8257
– indicator 15.	The quality of basic public supply	factor weight: 0.8253
– indicator 4.	Ratio of settlements with population >999	factor weight: 0.6993
– indicator 13.	Number of in-commuters	factor weight: 0.5769

Thus, factor F_2 reflects the *structure of the settlement* (settlement size) and *basic services*. The number of in-commuters shows a close reciprocity with the size of the settlements: the diverse economy of larger towns attracts a larger number of in-commuters than that of the small villages providing a limited number of workplaces. In our research of 1982, the indicators determining this factor (alongside with some other ones) used to belong to the "dominant" factors, representing a more than 21% weight in establishing the types of rural settlements. Compared to the 1970s and '80s, the role of the indicators comprising F_2 has decreased in the life of villages. However, the number of inhabitants of the settlements and basic services are still closely related (the correlation between the two indicators is 0.6966), as *Table 9* clearly demonstrates.

Considering the close relationship between the size of settlements and F_2, it is easy to see that the factorscore values in F_2 reflect the peculiarities of the country's settlement structure. The "spatial structure" formed by factorscore values are characterised by sharp regional differences, the different parts of the country and the central regions can be clearly separated. In the Great Hungarian Plain (Alföld) – except for Szatmár-Bereg Plain which has a different settlement structure – there are no settlements with low factorscore values, and even hardly any of them have medium values (*Figure 3*).

Factor F_3 explains 11.13% of the total amount of the information. The factor is comprised of the following indicators:

– indicator 17.	Ratio of the age group 60–x, 2001	factor weight: –0.8978
– indicator 19.	Natural increase and decrease, 1990–2001	factor weight: 0.8136
– indicator 20.	Ratio of inactive wage-earners of all inhabitants, 2001	factor weight: –0.7838
– indicator 26.	Changes in the number of inhabitants in settlements, 1990–2001	factor weight: 0.5968

Table 9

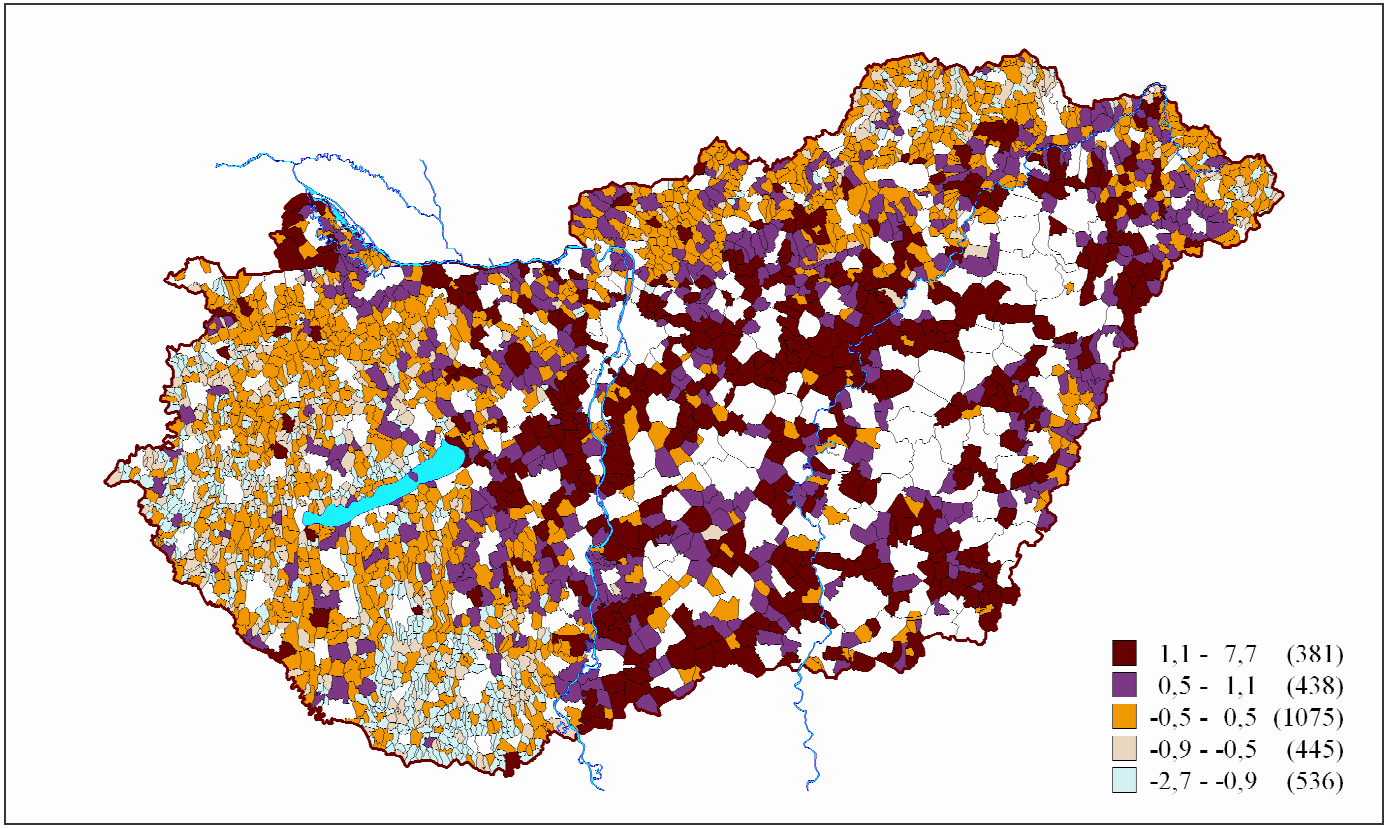
Number of inhabitants in settlements and the score of their basic provision in the different categories of the factorscore values in F_2

Factor F_2	Population under 500			Population of 500–1,000			Population of 1,000 – 3,000			Population over 3,000		
	number of settlements, their ratio, and the score of basic institutional provision											
	settle-ment	ratio in the cate-gory, %	score	settle-ment	ratio in the cate-gory, %	score	settle-ment	ratio in the cate-gory, %	score	settle-ment	ratio in the cate-gory, %	score
1,1 – 7,7	0	0	0	7	1.8	17.0	174	45.8	20.7	199	52.4	22.0
0,5 – 1,1	10	2.2	9.3	43	9.8	15.1	357	81.6	18.5	28	6.4	19.6
–0,5 – 0,5	210	19.5	6.1	481	44.7	12.6	380	35.4	16.4	4	0.4	18.0
–0,9 – –0,5	316	71.0	3.5	108	24.3	9.0	21	4.7	12.9	0	0	0
–2,7 – –0,9	484	90.4	2.0	45	8.4	5.2	7	1.2	10.2	0	0	0

Source: Authors' calculations.

Figure 3

Factor values of the villages in the F_2 factor



Source: Authors' construction.

F_3 is the factor of *short-term demographic changes* and the factor of demographic conditions (*Figure 4*).

Table 10 shows the different types of rural settlements established in our research and some significant data of them. Due to its large size, only contracted types are introduced here while *Table 11* shows some characteristics of the different types (*also see Figure 5*).

4 Village types

4.1 Types I–III

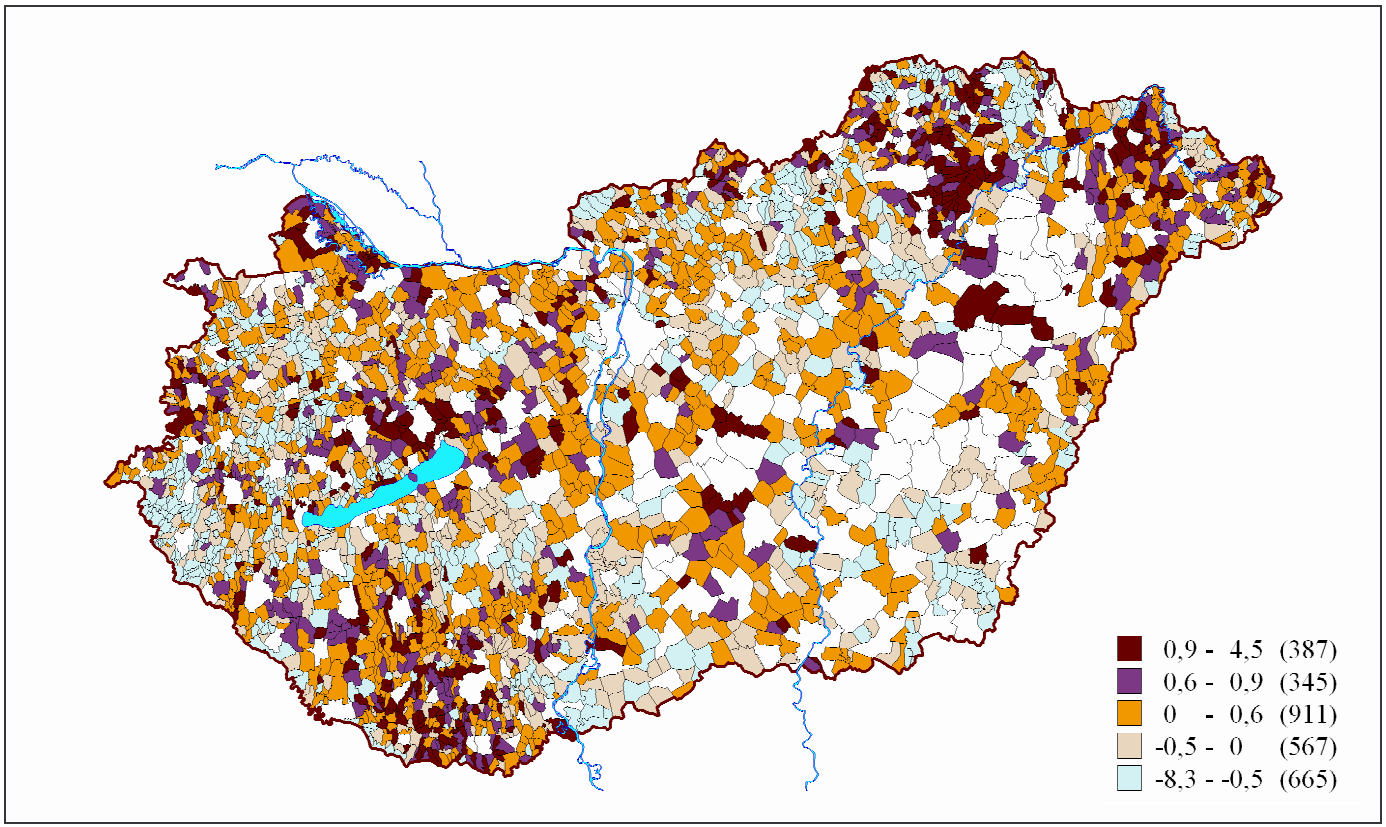
The first three main types include about 800 settlements taking a favourable position in the ranking of the advancement level of *suburbanisation-agglomeration process*, out of which some 110–112 settlements have made significant advancement in the process and belong now to the core area of an agglomeration (highly growing population even after 1990, favourable 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; after 1990, their number of inhabitants increased by 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 the disadvantaged micro-villages – showing that this type developed remarkable "own" economy, the conditions for enterprises are favourable, and the specific values of enterprises 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 granted 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 sub-type I.2 belong settlements rather similar to sub-type 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 inhabitants between 1949 and 2001. Settlements belonging to this type (type I) form a continuous, extended ring only around Budapest. Among larger provincial towns, 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 an agglomeration area.

Figure 4

Factor values of the villages in the F_3 factor



Source: Authors' construction.

Table 10

Types of rural settlements

Type	Subtype	Name of type	Cluster number	Number of settlements
Type I.		*Settlements in the inner zone of an agglomeration*		
	I. 1.	Developed settlements with a large number of inhabitants and of high prestige, with favourable demographic structure	Cluster 1, 17 and 12	34
	I. 2.	Agglomeration villages with rapidly increasing, medium-size population, with favourable position	Cluster 19	68
Type II.		*Villages in the outer zone of an agglomeration*		
	–	(settlements with increasing large population, with high rate of industrial wage-earners, with social structure which is more favourable than the average)	Cluster 4	218
Type III.		Villages with smaller and stagnating-moderately increasing population, with residential and mixed functions		
	III. 1.	Villages with good labour market conditions, stagnating population, high ratio of out-commuters	Cluster 22	273
	III. 2.	Villages with average labour market conditions, decreasing population and mixed functions	Cluster 14	209
Type IV.	–	*Villages with touristic function, spas*	Cluster 6, 7, 9 and 24	38
Type V.		*Medium-size villages with unfavourable labour market conditions, in some cases with remarkable agrarian functions and outskirt population*		
	V. 1.	Stagnating, medium-size villages with bad labour market conditions, high ratio of out-commuters	Cluster 15	379
	V. 2.	Villages with high ratio of outskirt population and remarkable agrarian function, mainly in the Great Plain (scattered farm villages)	Cluster 16	70

Count. Table 10

Type	Subtype	Name of type	Cluster number	Number of settlements
Type VI.		*Villages with good labour market conditions, stable social structure, with residential and touristic function*		
	VI. 1.	Villages with good labour market conditions, stable social structure, with residential function	Cluster 8 and 25	631
	VI. 2.	Villages with less favourable demographic conditions, but remarkable touristic function	Cluster 11, 18 and 20	44
Type VII.		*Small, disadvantaged villages with bad labor market conditions, decreasing population, with distorted demographic structure*		
	VII. 1.	Disadvantaged dwarf villages with rapidly decreasing population, unfavorable demographic structure and commuting inhabitants	Cluster 2, 5	432
	VII. 2.	Disadvantaged small villages with decreasing population, and with remarkable agrarian function	Cluster 23	105
	VII. 3.	Poor, small villages with very bad labor market conditions but with increasing population and favorable demographic indicators	Cluster 13 and 21	191
	VII. 4.	Dwarf villages with rapidly decreasing population and bad labor market conditions	Cluster 3 and 10	183

Source: Authors' classification.

Table 11

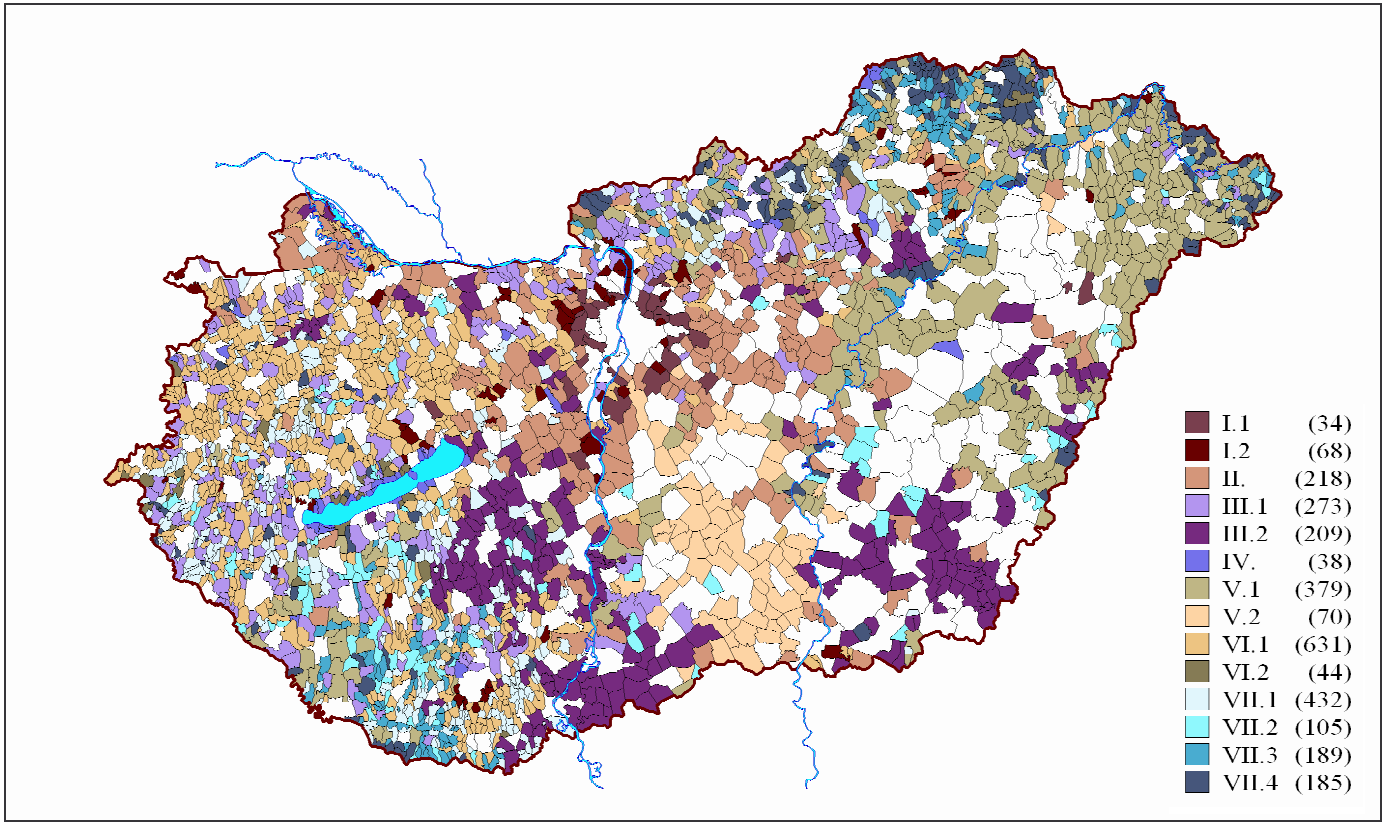
Selected important data of the types of rural settlements

Type	Averages of different indicators											
	population (number)	change in the population		rate of people aged 60–x	active wage-earners, %	out-commuters, %	industrial wage-earners, %	white collar workers, %	number of basic institutions	number of motorcars per 1,000	rate of dwelling with 4 or more rooms, %	rate of agricultural wage-earners, %
		1949–2001	1990–2001									
I.1.	7181	296,7	136,3	16,7	38,7	65,6	33,0	39,0	20,1	236,8	23,3	2,1
I.2.	1987	191,2	130,7	16,7	38,5	72,7	33,6	38,8	15,1	230,0	29,0	2,4
II.	3180	109,9	105,6	20,2	34,8	59,2	44,2	25,4	20,3	176,2	15,7	4,6
III.1.	1255	85,8	98,0	22,5	34,9	62,3	41,4	28,4	15,8	205,9	23,5	5,0
III.2.	1744	64,9	94,8	24,2	29,2	46,8	39,8	22,7	18,0	162,4	15,8	11,7
IV.	1063	116,2	97,5	24,2	34,7	49,6	28,4	33,0	14,4	257,6	30,2	5,0
V.1.	1755	81,5	98,8	20,9	23,1	49,4	40,0	25,7	16,9	132,7	12,4	5,8
V.2.	1940	69,8	102,4	21,8	33,1	40,5	32,7	17,8	17,1	194,8	11,0	25,9
VI.1.	833	85,5	103,2	21,5	34,5	70,9	39,4	26,6	10,3	200,3	25,2	6,7
VI.2.	507	60,2	87,6	31,3	30,5	57,7	37,9	26,5	7,7	232,7	16,9	7,7
VII.1.	371	52,3	90,7	27,9	27,0	73,9	50,9	15,2	4,1	157,6	11,2	6,5
VII.2.	476	46,9	92,8	24,2	23,7	46,7	30,1	16,6	6,7	154,4	11,4	23,8
VII.3.	532	70,5	105,9	17,9	17,4	65,7	42,8	18,9	5,3	99,2	9,4	5,7
VII.4.	402	46,2	86,9	35,1	18,0	51,9	32,1	26,6	6,0	137,8	9,5	7,1

* 1949 = 100,0%; 1990 = 100,0%
Source: Authors' calculations.

Figure 5

Village typology of Hungary



Source: Authors' construction.

Nevertheless, it is evident that the relatively large number (218) of villages categorised as *settlements in the peripheral 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 the 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 a high school diploma is 23% while in type I this number is 37%) and income conditions are less favourable (see the rate of dwellings with 4 or more rooms and the number of cars 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–Nagykáta–Újszász–Szolnok railway line, towards Jászság, in the Dabas micro-region, 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 micro- and small-village structures. The stagnating-declining economy of some 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 functions belong to type III, while type III.2 comprises 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 the short term – and by their location. They are not clustered around centres offering employment possibilities, but are scattered all around in the dwarf village commuting areas. Villages with a larger population, more favourable local positions, 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 counties.

It is not so obvious to identify sub-type 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 favourable conditions: in Békés and Csongrád, on the loess fields of the southern part of Tiszántúl – 60% of the settlements belong to this sub-type 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 sub-type).

4.2 Type IV

The 38 settlements in type IV were classified as villages with *touristic functions and spa resorts* by the merger of four clusters. Their functions gave the settlements their special characteristics, which means a suitable number and 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 be placed here or not. This problem especially emerges in the case of settlements in sub-type 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 sub-type VI.2 are in rather unfavourable 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.

4.3 Type V

Settlements belonging to type V can mostly be identified as "traditional" villages, even though in sub-type 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 Bodrogköz, Taktaköz, Middle Tisza Plain [Közép-Tisza-vidék], 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 labour 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 unfavourable peripheral position).

Another sub-type here is *scattered farmstead villages*, with a high ratio of population in the periphery (40% as an average, but in some cases it can be more than 70%). As a distinctive feature, scattered farmstead villages are almost exclusively preserved in the Danube–Tisza Interfluve. In the region of Tiszántúl, where there used to be a great number of these "tanya", many of them disappeared. Only a few scattered farmstead villages like Nagycserkesz, Kálmánháza, Nagytőke near Szentes, Cserkeszőlő, the farmsteads 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 farmstead villages during the cluster analysis, another 15 settlements in the Great Hungarian Plain have 25% 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 farmstead villages.

4.4 Types VI and VII

Settlements belonging to this type are micro- *and small villages*. Their average number of population does not reach 1,000. The main differentiating factor among them is labour market conditions. Small villages with favourable labour market conditions – the rate of active wage-earners in the total number of wage earners is 34.5%, the same rate as in the outer zone of agglomerations. Although they do not provide enough workplaces on site, the majority of their wage earners could become commuters in regions with favourable economic conditions. Their society is stable, their living standards are average. In these settlements, the main defining feature is the "opposition" between the size of the settlement and its labour 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 micro-villages with an unfavourable 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 worsened in the 1960s and '00s (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 of development even temporarily under the conditions of 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 utility – especially sewage-system – parameters, they came to the conclusion that "villages with a population of 3,000 are the smallest type of socialist villages" (*Perczel – Gerle,* 1966).

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

While evaluating the effects of settlement policy, it has to be taken into consideration that the state of small villages is influenced by development processes, conditions and geographic position of productive 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 services. 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 to only 5.5%), excess agricultural labour force after the nationalisation of agricultural production (establishment of collective farms), land-owning peasants with decreasing economic interests and looser emotional ties to their land, rocketing labour demand in industrial production and mining after 1948, the overall availability of commuting due to developments in public transport. The state of

small villages was worsened due to the following facts: first, their transport geographic position was worse than the one of larger villages – there was a lower number of transport services and their railway stations were in a rather more peripheral position. Secondly, in the regions with a small-village settlement structure, the central offices of collective farms were relocated 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 labour; thus, those having pursued secondary and higher education could not return to their native villages.

The relocation of the institutions of primary service (school, local council, central offices of collective farms) into the so-called central villages, into seats of local councils, made the situation in small villages regarding basic services even more unfavourable and it also made the intellectuals leave. The inhabitants noted that in order to get to a higher level in the social hierarchy there was a need to move up in the 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 nearby town, sending the growing-up generation into towns etc.). It was 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 small hamlet of Gyűrűfű 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 labourers or those who were young. Thus, the proportion of the elderly, pensioners, the unhealthy and those with low qualifications (consequently also 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 unfavourable 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 of the vicious circle of *unfavourable position and status → moving off → increasingly unfavourable social structure → increasing degree of moving off.* The degree and direction of migration were proportionate to the size of settlements. Hundreds of villages became only shadows of the settlements they once used to be (*Table 12*).

Table 12

Changes in the population of selected villages, 1870–2001

Villages	Population													
	1870	1880	1890	1900	1910	1920	1930	1941	1949	1960	1970	1980	1990	2001
1. Pamlény[1]	402	398	429	384	379	413	426	448	416	333	243	136	95	54
2. Perecse[1]	308	278	281	258	244	246	260	279	271	257	174	92	61	29
3. Debréte[1]	222	238	222	210	216	194	208	211	220	191	105	60	42	30
4. Magyarlukafa[2]	395	380	373	362	402	405	391	366	402	280	189	132	112	109
5. Tagyon[3]	191	174	213	204	208	188	194	169	191	198	123	107	103	94
6. Gagyapáti[1]	146	110	119	111	123	134	147	136	136	96	71	33	19	15
7. Sima[1]	155	172	188	198	187	199	183	177	171	150	78	42	24	19
8. Felsőszenterzsébet[4]	205	225	224	250	210	194	168	146	129	85	57	38	20	19
9. Magyarföld[4]	100	140	151	159	156	149	160	146	140	122	79	54	51	42
10. Zaláta[2]	943	935	947	977	972	886	854	857	846	642	123	393	345	306

1 = village situated in Borsod-Abaúj-Zemplén County
2 = village situated in Baranya County
3 = village situated in Veszprém County
4 = village situated in Zala County

Source: County volumes of the census carried out in 2001.

The unfavourable 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.

Our previous research documented these processes, in which we concluded that settlement formulating processes are primarily determined by the following *group* of reasons: *settlement size, basic services, settlement hierarchy level*. The biggest group of rural settlements during the socialist era was the one which included those villages that could be described as villages with micro-village phenomena. There were nearly 1,100 of them in the country.

After 1990, as it was described earlier, there was a change in the relation of basic institutions and villages. This change was caused by the following two reasons:

- On the one hand, one of the reasons was a dramatic decrease in the number of job opportunities and a decrease in the economic activity of population. This caused that the role of labour market situation gained increased importance in the life of rural population. This change influenced the life of village inhabitants to a higher degree than the life of those living in towns. A rather significant diversification took place in this respect: economic activity fell back more moderately in villages with favourable regional position, i.e. in economically more prosperous regions and near tows. Opportunities for commuting remained the same in these villages, or there were job opportunities offered by rural tourism. Regardless of their size, there were relatively good conditions in these villages concerning labour market situation, income levels, circumstances of life, infrastructure etc. However, many small villages are situated in regions and micro-regions where there are unfavourable labour market conditions, or they are situated far from towns and places offering employment. There are cases when the state of a village's population – extremely ageing population, uneducated and unqualified inhabitants – leads to its own unfavourable position. In these settlements, the population fights for survival in the strict sense of the word and the quality of public services is of secondary importance. This was also mirrored in the press: while in the seventies and eighties there were articles discussing that for example cheap salami was delivered into small villages only twice a week, today the issue is that the majority of the population would not even have money to buy that salami.
- On the other hand, opportunities for the utilisation of basic services have also changed due to the following factors: improvement of roads, increasing number of cars, widespread use of communication tools and a growth in the number of service companies. On this basis, small villages are not necessarily remote and cut away from the rest of the world, and the availability of basic services cannot be exclusively evaluated on the basis of locally present

institutions either. (Of course, there are still villages, mainly those in an unfavourable situation, where basic services can only be reached with difficulties. In these settlements, there is an insufficient number of businesses and the use of modern communication tools is not widespread either.)

5 Conclusions

5.1 General remarks

A few conclusions that can be drawn from the research:

– Regardless of how big a database is, what kind of mathematical-statistical apparatus we worked with, only the main coordinates of the villages and their phenomena transformed and condensed into data could be taken into consideration when setting up the typology. It is obvious that there are numerous other factors, which influence the conditions, state, features and the overall picture of individual villages and local communities. Some of these are as follows: the diversity of the natural environment, settlement history (e.g. is a village a former smallholder village, a settler village[10], a manor village[11], a scattered farmstead village[12], a so-called "summás" village[13] or a craftsmen settlement etc.), the time when the industrial age reached the village, the former property relations in the village and consequently the social and property status of the settlement's population, the level of development of middle classes in the village before the socialist era, the degree of how much a village was stricken by deportations during and after World War II, the national and religious composition of a village's population, traditions

[10] Settler village: most of them were founded after the end of the Ottoman occupation (end of the 17th century) by settlers coming from further regions of the country or by settlers coming from abroad. Frequently, they were not built at the place of former villages. They were built up according to plans; the arrangement of streets and properties were elaborated by engineers. A lot of settler villages were founded by settling together the inhabitants of scattered settlements in outer areas, or in some special cases, a village was created for a special group of settlers, e.g. the village of Beloinnaisz was built for Greek communist partisans and their families who had fled from their country after the end of the Greek Civil War.

[11] A village built up on manors. These were inhabited by agricultural workers working for the landowner. The buildings in the village were owned by the landowner. Later, many of these became independent villages.

[12] Villages that were created by a planned *settling together* of the inhabitants of "tanya" scattered farmsteads.

[13] A village inhabited by day-labourers and peasants who were landless or owned only a dwarf estate. The day-labourers who did seasonal work on manors further away from their home were called as "summás" people.

with different roots and consequently the population's scale of values, their lifestyle, their ability to innovate, their tastes and the leadership skills of their representatives etc. The mixture of hard data and the above mentioned by far not complete set of features make *each village a unique and irreproducible individual unit.* After all, in Hungary there are more than 2,800 types of villages nowadays. Each effort to classify or to put any of them into a certain type damages their uniqueness. It is evident that there are not only 14 types (number of types and sub-types) of villages in Hungary nowadays but there are thousands of them. Thus, if we decide to draw up any system of rural settlements, we will have to accept the fact that during the classification of villages, we will have to ignore some of their significant individual features. Each group of villages belonging to the same type will still include different rural settlements with numerous individual features. It follows from the foregoing that even if we follow a research method that is based on a carefully and perfectly created wide-ranging database, we will not get perfectly homogeneous village types.

– The above mentioned so to say *difficulties* are made even more complicated by the fact that all of the rapid and sharp changes that took place in the villages and in the lives of their population after 1990 (deindustrialisation, the liquidation of socialist-type cooperative farms, significant changes in their labour market position, regaining the right to self-government, technical developments etc.) have not manifested themselves fully as a whole, yet. The settlements and their inhabitants have not had time so far to react fully to these changes. Numerous contradictory processes are taking place simultaneously and there are contradictory states as well. As an example, contradictory demographic and social processes could be mentioned here. If a complex classification method is applied where a wide range of factors is taken into account, the above mentioned so to say irregularity or disorder makes individual groups of rural settlements extremely hard to interpret. On the other hand, of course, different types can be derived on the basis of different factors, such as on the basis of the population of settlements, the employment structure of the population, changes in the number of inhabitants, the proportion of out-commuters, the availability of basic services and the development of infrastructure. The merging of these factors into a complex type may result in the fact that similar rural settlements from the same group may be put into different types (e.g. the proportion of commuters is high in nearly each type; thus, residential villages can be found in nearly each type, even in scattered-farm villages). At the same time, even if the majority of the indicators of individual villages show more or less similar values, and the factor analysis is based on these indicators, some of their indicators can be

considerably different from the cluster's centre, i.e. they may differ from the average. This way, if we define the typical data of villages belonging to each type as indicators (with minimum, average and maximum values), it may seem that very different villages were put into a certain type. With full awareness of the peculiarities of factor and cluster analyses this statement can be accepted only partially. However, it is a fact that the homogeneity of the types is less than ideal and that exactly due to the current irregularity or disorder in the processes.

– At the same time, all villages have undergone a certain homogenisation. For example the ratio of out-commuters compared to the number of wage-earners in every village and village type is rather high: it amounts to or exceeds 60-70%. So, this formerly strong differentiating factor nowadays plays a modest role in the typology; while earlier the proportion of out-commuters used to be the most important indicator of suburbanisation and of the degree of becoming agglomerations; nowadays agglomerations cannot be determined on the basis of the same indicator. The majority of our villages serve only as an area for living due to a low number of local employment opportunities (62% of the economically active population is commuting). The disappearance of mining villages and industrial settlements (partly because they had been granted urban status , partly because mines and factories were closed down) also resulted in the relative homogeneity of villages. The decrease in agricultural production (considering the number and ratio of wage-earners working in the agricultural sector) has suppressed agriculture as a primary activity among the determining factors. Today the old equation of "village = settlement with an agricultural activity" is no longer valid. There are only a little more than 50 villages, where the proportion of wage-earners working in agriculture exceeds 30%. In 141 villages the corresponding proportion is between 20 and 30%. This means that the same figure is under 20% in approximately 200 villages. In addition, agriculture does not play a major role in the latter group either. In more than 1,300 villages, however, the proportion of wage-earners employed in agriculture does not reach 5%. This means that these villages are not influenced by the degree and the nature of their agricultural activities (at least not concerning the proportion of wage-earners).

– While on the basis of the hard data, a certain unification can be observed within the stock of villages, the status of local society, their sociological features, the differences deriving from the different financial status – e.g. the environment formed by the ways of recreation, the amount spent on "culture", tastes, demands, financial background; the general appearance of the village, the lifestyle of the inhabitants, their scale of values, their dressing habits etc. – along with the traditions the inhabitants preserve, the social lay-

ers of villages and several, non-factual factors generate a rather diverse *formula*. The diversity of the soft data – from the so to say elite residential quarters in the suburbs, to the unemployed people of the villages stricken by demographic erosion, scraping along on social benefits or casual work – is highly remarkable. However, obviously, these differences appear only indirectly in our database.

– Of course, the description of the individual types of rural settlements does not outline the peculiarities of the villages of individual areas, micro-regions and parts of the country. Not even in spite of the fact that the spreading of certain types of villages has been outlined and the position of villages belonging to a certain type has been presented on detailed maps. The frequency of the presence of certain types, the different mixes of different types, the role of towns in the individual regions and the developments in settlement neighborhoods can form peculiar areas and groups of villages, so-called *macro village regions* or village districts in individual regions. We cannot integrate the description of these peculiar areas into this research, but the frequency of the presence of certain village types in certain counties provides information about the peculiarities of territorial structure (*Table 13*). In *Figure 6*, those parts of the country and those regions are shown, where similarities can be observed in the frequency of the presence of certain village types and in the proportions of mixing of certain types. On the basis of our observations nine macro village regions should be drawn up, of course with the possibility of drawing up further sub-regions within each one.

5.2 Macro village regions

Macro village region I: Western Hungary: This macro village region includes the villages of Vas, Zala, Győr-Moson-Sopron (not including the zone by the Danube and the villages lying by the Mosonmagyaróvár–Győr–Komárom axis) and Veszprém (not including the villages of the Veszprém and Várpalota agglomeration) counties and some villages around Kisbér.

This macro village region of some 800 villages is made up of micro- and small villages. Nearly four fifths of the villages have lower population than 1,000. The number of inhabitants exceeds 2,000 only in 40 villages. The population of the latter ones increased mainly as a result of the agglomeration process in the last few decades, or as a result of industrialisation and mining. In the majority of the area, there are favourable agricultural natural conditions, transport geographical positions are good market centres are within easy reach for the villagers. The town network has been built up completely, both the medium-size towns (Sopron, Győr,

Table 13

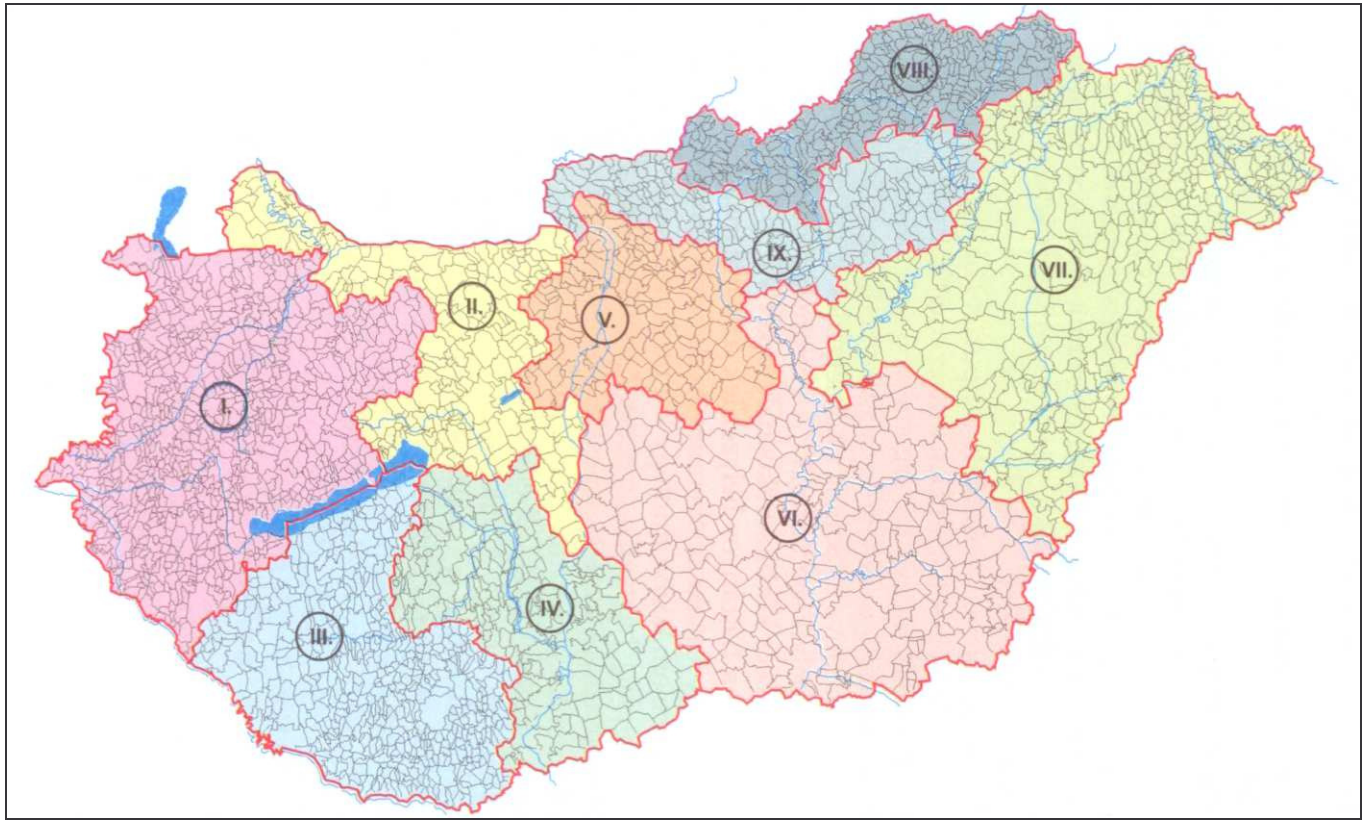
Types of rural settlements by counties

County	Number of villages	I.1	I. 2	II.	III. 1	III. 2	IV.	V.1	V.2	VI.1	VI.2	VII.1	VII.2	VII.3	VII.4
Baranya	289		7		15	18	1	6	1	67	2	90	20	52	10
Bács-Kiskun	101			11	6	29	0	7	37	3	0	1	6	0	1
Békés	58			5	0	35	0	10	0	0	0	0	5	0	3
Borsod-Abaúj-Zemplén	334		7	13	9	7	5	83	0	24	5	25	3	75	78
Csongrád	52		1	4	0	16	0	2	20	4	0	2	2	0	1
Fejér	98	3	7	31	2	18	1	2	0	21	0	11	2	0	0
Győr-Moson-Sopron	172		4	23	20	10	1	0	0	81	0	23	7	0	3
Hajdú-Bihar	55	2		4	0	13	0	32	0	0	0	1	0	2	1
Heves	111	1	1	27	18	5	3	22	1	5	3	15	1	2	7
Jász-Nagykun-Szolnok	61			20	2	3	1	23	1	1	0	1	5	2	2
Komárom-Esztergom	66		4	15	17	3	1	0	0	20	0	5	1	0	0
Nógrád	122			4	30	0	0	26	0	17	3	25	0	5	12
Pest	152	27	23	46	17	2	0	6	6	14	2	3	0	2	4
Somogy	231		1	4	27	4	7	25	0	55	5	45	25	22	11
Szabolcs-Szatmár-Bereg	208		2	1	9	0	0	132	3	1	1	2	4	21	32
Tolna	99		1	5	1	44	0	0	0	18	0	25	3	0	2
Vas	207		2	1	25	0	2	1	1	116	9	47	1	1	1
Veszprém	211	1	4	4	22	2	13	1	0	99	10	39	8	2	6
Zala	248		4	0	53	0	3	1	0	85	4	72	12	3	11
Total	2875	34	68	218	273	209	38	379	70	631	44	432	105	189	185

Source: Authors' calculations

Figure 6

Macro village regions in Hungary



Source: Authors' construction.

Mosonmagyaróvár, Szombathely, Pápa) and small towns (Kapuvár, Csorna, Sárvár, Celldömölk, Kőszeg, Körmend, Tapolca, Sümeg etc.) are busy traffic hubs. The industries processing agricultural products (beet, dairy, distilling and meat processing industries etc.) are well-developed. The conditions of micro- and small villages in this region are rather favourable. The micro-village syndrome is present only in a small scale. The situation of some villages in Zala County and in some micro-regions of Vas County (Vendvidék, Őrség, Vasi-Hegyhát) is less favourable: there are unfavourable agricultural conditions, vital small towns and market centres are missing and traffic conditions are not good. In the villages of the Transdanubian Central Range (Dunántúli-középhegység) both mining and industrial production started early. During the socialist era they became major economic branches and thoroughly transformed the villages.

Macro village region II: Danube Region (Dunamente) and Mezőföld Region: Villages by the Mosonmagyaróvár–Győr–Komárom–Esztergom–Dunaföldvár line and villages in the vicinity of Székesfehérvár.

The villages of this long-stretching region have been in an advantageous position for a long time. Agricultural conditions in this zone are undeniably good: agriculture has been pursued in the region on good and excellent quality soils on plains (except for a few villages in the Transdanubian Central Range where the quality of soil is sub par and agricultural conditions are poor). The market conditions are excellent as well: the proximity of Vienna and other towns in the Small Hungarian Plain (Kisalföld) created a demand for production in the villages of Moson and Győr County quite early; the Danube as a waterway solved the problem of transport even before the appearance of railway links, and there was a line of towns by the Danube, which created a demand for crops, such as Moson, Győr, Komárom, Vác, Dunaföldvár and Paks. Though agriculture on manors hindered the development of smaller farms to a great extent, the former served as good examples of intensive agricultural production. Busy traffic on the roads of international importance (the Danube as a waterway and the international road on the right side of the river, the road between Dunaföldvár, Székesfehérvár and Győr, the "Road of Butchers'") created a bustling life in this zone: the middle-class developed early and craftsmanship started to flourish in villages such as Dunabogdány, Visegrád, Nagymaros, Nyergesújfalu, Piszke, Süttő, Dunaalmás, Neszmély etc.

Later, in the second half of the 19th century, manufacturing industry also settled down in the region. The part of this zone belonging to the Small Hungarian Plain had food industry and textile industry, and the part belonging to Komárom-Esztergom County had mining and building materials industry. Populous villages and villages with medium-size population did not lack basic institutions. During the decades of socialism the industrial development of this zone came to the front. A large number of important industrial districts and towns developed in the region

(Győr, Tatabánya, Dorog and its vicinities, Várpalota, Dunaújváros etc.) New socialist industrial towns[14] grew up on crop fields – Dunaújváros, Tatabánya, Oroszlány and Várpalota. This was the zone where the transformation of former agricultural villages started the earliest, partly due to the opening of mines and the launching of industrial projects, and partly due to a rapid growth in the number of commuters.

As a result, this zone became a conglomeration of industrial and residential communities. It was only a certain part of the Mezőföld, the one between Székesfehérvár, Sárbogárd and Dunaújváros, where major manufacturing industries had not settled. However, due to the fact that towns were attracting new labour force, changes in the occupational structure of the population gained pace in these villages as well. The vast majority of settlements in this zone showed signs of becoming agglomerated and turning into sleeping settlements on different levels even in measures of the socialist era. Today, the majority of the villages belong to "agglomeration types" too; mostly the type that includes settlements in the outer zone of agglomerations (type II). There are only a few villages, which lie in the Transdanubian Middle Range that did not become agglomerated settlements, however, the settlements belonging to type VI in the Gerecse and the Vértes Mountains can be considered residential villages as well (Vértestolna, Bajót, Nagysáp, Újbarok, Felcsút, Bakonykuti etc.). Mining and manufacturing ceased in most settlements after 1990, which caused depression; however, job opportunities offered by nearby towns offset the influence of deindustrialisation in these settlements.

Macro village region III: Somogy–Baranya: This area is made up of villages in Somogy and Baranya counties.

Baranya County has a micro-village settlement structure (In 90% of the rural settlements, population is under 1,000). Until the years after World War II, Somogy County was dominated by small and medium-size villages; however, due to the large decrease of population, even Somogy County is registered as a small-village area nowadays. (In 1949 only a little more than a half of the villages had a lower population than 1,000. Today the same figure amounts to 72%.).

These two counties are also dominated by villages belonging to micro-village types, and within this most of them are greatly disadvantaged dwarf and small villages – 53% of the villages in the two counties belong to a sub-type of type VII, and only a fourth of them are registered as villages belonging to type VI (a group with good labour market conditions). Thus, nearly four fifths of the villages in Baranya and Somogy counties belong to some of the small-village types. The micro-villages that are in a relatively good situation are lying near Kaposvár and

[14] Settlements built after the communist takeover. These were built during the time of forced industrialisation near state projects such as ironworks, power plants, aluminium works, coal mines etc. Their aim was to settle down new workforce. At first they were just built as housing estates.

Pécs; they are parts of the agglomeration of the two towns. The disadvantaged settlements are concentrated in Ormánság and Zselic regions and in the northern part of Inner Somogy (Belső-Somogy). There is a shortage of populous villages here, which could serve as low-level centres or so-called *central settlements*, where a higher number of basic public services could be concentrated. These could turn rural regions into better supplied ones.

Macro village region IV: Tolna–Bácska: This macro village region is made up of villages in Tolna County, some settlements belonging to the Sárbogárd Micro-region in Fejér County and of villages situated in the former Bács-Bodrog County.

This macro village region, cut into two parts by river Danube, forms a whole only because the distribution of village types is roughly identical within this region. Similarly to the previous macro village region this zone is also dominated by medium-size and large settlements. Agricultural conditions are favourable in this area as well (Bácska, Southern Mezőföld [Dél-Mezőföld], Mohács Plain [Mohácsi-sík]), except the Tolna Hills (Tolnai-Hegyhát) and the Völgység. There are two different parts distinguished within this area with regards to their settlement history: one of them is made up of villages belonging to Tolna region, the other one is made up of villages belonging to Bácska region. For example, while in Bácska region farming on scattered farmsteads is common, and what is more, there are even some farmstead villages such as Tompa, Kéleshalom, Rém and Borota; in Tolna region, a typical settlement type was the one of large manors before World War II. However, some similarities can be observed as well: a significant proportion of the population was not Hungarian until the deportations which took place after World War II. In Bácska just like in Tolna, the majority of population was Swabian. In numerous settlements the population was nearly solely German-speaking before World War II, and in some villages the vast majority of population was made up of different southern Slavic people. On the other hand, these villages were not influenced by socialist industrialisation, and there was a rather small demand for their labour force in towns. Thus, commuting started in the area at a later point. They pursued booming agricultural farming during the decades of socialism. Nowadays, this macro village region can be described as one with balanced settlement development processes without major extremities. Nearly all indicators of rural settlements are around the national average or slightly above. This area is dominated by villages belonging to type III: in Bácska there are only a few villages belonging to other types, and in Tolna there are some small villages around Bonyhád and Szekszárd with good labour market position.

Macro village region V: Budapest agglomeration. This macro village region is made up of villages from the overwhelming majority of Pest County and of some rural settlements from the neighboring Nógrád County and Jászság excluding Szob Micro-region in Pest County. The suburbs, agglomerations and residential zones of Budapest and partly of Vác are made up of villages belonging to type I. and type II. Apart from these there are only a few villages in this zone that belong to other types (e.g. small villages with favourable labour market conditions around Vác). This macro village region could be described as a region with peculiarities of agglomeration types.

Macro village region VI: Rural settlements situated in Csongrád and Békés counties, in Jász-Nagykun-Szolnok County excluding the Middle Tisza Region (Közép-Tiszavidék), and in Bács-Kiskun County exluding Bácska.

A considerable part of this macro village region is made up of urban zones. For example, there is a large continuous area which belongs to the administrative authority of the towns of Karcag, Kunhegyes, Kisújszállás, Túrkeve, Mezőtúr, Szarvas, Gyomaendrőd and Dévaványa. Thus, the macro village regions in Békés and Csongrád counties exist in the form of isolated islands of different size. This zone in fact could be divided into two macro village regions. One of them could be the area of mainly scattered farmstead, or "tanya" villages in the Danube–Tisza Interfluve (Duna–Tisza köze). The other one could be an area made up of villages belonging to type III in Southern Tiszántúl (Dél-Tiszántúl). In the 18th and 19th centuries the typical settlement system of the Southern Great Plain (Dél-Alföld) comprised of populous provincial towns with an agricultural role. From the second half of the 19th century, the empty spaces in this low-density network of country towns were more and more embedded into farmsteads that were becoming inhabited permanently. Since the beginning of the 19th century, independent rural settlements formed from these farmsteads. Later, after World War II, a large number of so-called scattered farmstead settlements were artificially founded by separating some of the farmsteads administratively from the settlements they were administratively subordinated to. This system continued to live on in the Danube-Tisza Interfluve, though for different reasons it has become less frequent. The majority of villages are young ones with populous outskirts. Residential villages formed only on the periphery of this macro village region, i.e. by the Danube and near the towns of Szolnok and Kecskemét. The majority of the villages in Southern Tiszántúl were so to say average populous villages with mixed functions that could be classified as ones belonging to type III. They have lost their agricultural character by now. In some rural settlements the proportion of population living in outer areas is still high, but as a result of their demographic processes now they are classified as villages belonging to some of the small-village types.

Macro village region VII: Northern Tiszántúl (Észak-Tiszántúl): The territory of Szabolcs-Szatmár-Bereg and Hajdú-Bihar counties and the territory of the Middle Tisza Plain (Közép-Tisza-vidék).

This is the zone of the Great Hungarian Plain, which did not use to be made up of country towns and scattered farmsteads as much as other parts of the Great Hungarian Plain, or rather today there are towns like Hajdúság, Debrecen and Nyíregyháza in these micro-regions. In spite of this there are some settlements in the stock of villages that used to be collections of farmsteads. Nagycserkesz and Kálmánháza formed from scattered farmsteads situated around Nyíregyháza and they are still farmstead villages. What is more, Nagyhegyes, Ebes, Nyírtelek and Bélmegyer also formed around "tanya". However, the Nyírség, Bereg and Szatmár, the Middle Tisza Region and Bodrogköz are areas with normal villages, while "tanya" appeared later and in a low number even in Bihar (on the outskirts of Komádi, Szeghalom, Füzesgyarmat).

This macro village region is dominated by settlements belonging to type V.1. These medium-size villages with unfavourable labour market position and stagnating population make up two thirds of the rural settlements in the area. They form three large, continuous, nearly completely homogeneous blocks. The first block is situated in Szabolcs. The second one in Bereg and Bodrogköz is bordered by the first block, but there are also other types of villages in it. The third block is situated in the Middle Tisza Region and in Bihar. The rural settlements belonging to type V.1. in Szabolcs-Szatmár-Bereg County make up 65% of all villages. What is more, there are similar conditions in all of the villages of the region. The majority of agrarian population in this overpopulated county used to be day-labourers, agricultural labourers or they used to own only a small farm before 1945.

Macro village region VIII: The northern zone of Borsod-Abaúj-Zemplén and Nógrád counties; it also includes the territory of the Zemplén Mountains (Zempléni-hegység), Cserehát, Hernád Valley (Hernád-völgy), the Aggtelek Karst (Aggteleki-karszt) and the territory of the hilly region between Ózd and Salgótarján.

This part of the country is dominated by small villages where agricultural conditions are particularly unfavourable and rural settlements are traditionally poor; agriculture does not offer jobs and income. Thus, the population in this region pursued additional economic activities (such as sylviculture, home industry, or they became travelling craftsmen), they emigrated, or in the second half of the 19th century when industrialisation started, they became miners in the local coal and iron ore mines, or they became factory workers in ironworks and other heavy-industry plants. These activities, however, did not bring better living conditions for the population and they did not contribute to the development of middle classes either. They did so only in villages that were situated near larger towns. During the decades of socialism, the Sajó Valley and the Zagyva Valley were industrialised

considerably. The towns in the region such as Salgótarján, Ózd, Kazincbarcika and Miskolc were forcedly developed, yet only miners and unskilled workers arrived to the industrial areas from remote villages. Commuting from these settlements was rather difficult. Changes in the occupational structure of the population and commuting that reached extremely high proportions did not change the state of the villages, their general look and the state of the local communities for any better. Apart from villages lying close to towns there was a huge wave of migration from rural settlements into towns and into villages in their agglomerations.

The almost complete liquidation of mines and industrial plants in the 1980s and 1990s had disastrous consequences on the villages of this region: the number of jobs fell dramatically; cooperative farms that were making losses anyway were liquidated, the formerly developed basic institutional network rather deteriorated than improved. This macro village region is the one where the poorest regions in the country can be found. Apart from the elderly and those with unfavourable financial conditions the original inhabitants tend to move away from this region or die, and their place is taken over by even poorer new inhabitants who are trying to escape from somewhere else. Although these new inhabitants improve the demographic structure of these settlements, they make the villages' social structure extremely unfavourable. Most of the villages in this macroregion can be classified as micro- and small-village types typically with the most unfavourable conditions. The rural settlements around towns are more populous and they are similar to those that can be found in Nyírség region, so they suffer from dwarf village syndromes to a lower extent, but their labour market conditions are unfavourable.

Macro village region IX: This zone is made up of the southern foothills of the Northern Central Range (Északi-középhegység) and of villages lying by the Miskolc–Eger–Gyöngyös–Hatvan–Pásztó–Balassagyarmat line.

It is a territory dominated by temporary and different types of villages. This zone was made up of populous villages with favourable agricultural conditions in the past, but due to overpopulation numerous villages inhabited by small landowners and "summás" villages formed in this macro village region as well. The industrial age and commuting made the villages even bigger, and dwarf village syndrome affects fewer villages. Villages influenced by the micro-village syndrome can primarily be found in Nógrád County. Nearly all types of villages are present in this zone; thus, this village micro-region lacks homogeneity.

Bibliography

Andorka, R. 1979: *A magyar községek társadalmának átalakulása* [The Transformation of the Society of Hungarian Villages]. Budapest, Magvető Kiadó.

Bajmóczy, P. – Balogh, A. 2002: Aprófalvas településállományunk differenciálódási folyamatai [The Differentiation Processes of Our Micro-Village Society]. – *Földrajzi Értesítő.* 3–4. pp. 385–405.

Beluszky, P. 1965: Falusi településeink osztályozása [The Classification of Our Rural Settlements]. – *Földrajzi Értesítő.* 2. pp. 149–163.

Beluszky, P. 1999: *Magyarország településföldrajza* [The Settlement Geography of Hungary]. Budapest–Pécs, Dialóg Campus Kiadó.

Beluszky, P. – Sikos T., T. 1982: *Magyarország falutípusai* [Village Types of Hungary]. Budapest, MTA Földrajztudományi Kutatóintézet.

Beluszky, P. – Sikos T., T. 2007: *Változó falvaink (Magyarország falutípusai az ezredfordulón)* [Our Changing Villages: Village Types of Hungary at the Turn of the Millennium]. Budapest, MTA Társadalomkutató Központ.

Bőhm, A. 1995: A magyar falu társadalma a rendszerváltás után [The Society of Hungarian Villages After the Change of Regime]. – Kovács, T. (ed.): *A mezőgazdaságtól a vidékfejlesztésig. III. Falukonferencia* (conference paper). Pécs, MTA Regionális Kutatások Központja.

Buday-Sántha, A. 2001: *Agrárpolitika – vidékpolitika* [Agricultural Policy – Rural Policy]. Budapest–Pécs, Dialóg Campus Kiadó.

Enyedi, Gy. 1980: *Falvaink sorsa* [The Fate of Our Villages]. Budapest, Magvető Kiadó.

Erdei, F. nd.: *Magyar falu* [The Hungarian Village]. Budapest, Akadémiai Kiadó. 1974. (Erdei Ferenc Összegyűjtött Művei)

Kovács, K. 1987: Falutípusok a Dunántúlon [Village Types in Transdanubia]. – Degré, Antal – Foki, Ibolya (ed.): *A dél-dunántúli aprófalvak és szórványok település- és társadalomtörténete.* Zalaegerszeg, Zala Megyei Levéltár, pp. 33–44.

Kovács, T. (ed.) 2000: *Törpefalvak a településrendszerben* [Microvillages in the Settlement System]. Budapest, KSH.

Perczel, K. – Gerle, Gy. 1966: *Regionális tervezés és a magyar településhálózat* [Regional Planning and the Hungarian Settlement Neztwork]. Budapest, Akadémiai Kiadó.

Sikos T., T. (ed.) 1984: *Matematikai és statisztikai módszerek alkalmazási lehetőségei a területi kutatásokban* [The Applicability of Mathematical and Statistical Methods in Regional Studies]. Budapest, Akadémiai Kiadó. (Földrajzi Tanulmányok, 19.)

Szilágyi, M. 2005: Bevezetésként: az utóparaszti hagyományokról [Introduction: On Post-peasant Traditions]. In: Schwarz, Gy. – Szarvas, Zs. – Szilágyi, M. (eds.): *Utóparaszti hagyományok és modernizációs törekvések a magyar vidéken.* Budapest, MTA Néprajzi Kutatóintézet–MTA Társadalomkutató Központ.

Thirring, L. 1963: *Magyarország népessége 1869–1949 között* [Population in Hungary Between 1869–1949]. Budapest, KSH.

Timár, J. – Váradi, M. M. 2000: A szuburbanizáció egyenlőtlen területi fejlődése az 1990-es évek Magyarországán [Differences in the Spatial Development of Suburbanization in Hungary in the 1990s] In: Horváth, Gy. – Rechnitzer, J. (eds.): *Magyarország területi szerkezete és folyamatai az ezredfordulón.* Pécs, MTA Regionális Kutatások Központja.

Valuch, T. 2001: *Magyarország társadalomtörténete a XX. század második felében* [The Social History of Hungary in the Second Half of the 20th Century]. Budapest, Osiris Kiadó.