

## LIVING STANDARD, QUALITY OF LIFE IN NORTH-EAST HUNGARY BASED ON A SURVEY

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### ABSTRACT

The results in the reduction of the territorial differences as the goals of regional development can be measured well by the living standard, quality of life of inhabitants and the changes in the above and the several economic indexes. The most important thing, of course, is that the opinions of those living there change in positive direction, and the image of their living place and its region is encouraging. By this way the local retaining capacity of single area units can be increased, which also concerns the questions of rural development regarding the rural regions. Following these ideas we made a questionnaire survey based on a 1000-strong sample in North-East Hungary. In the questionnaire the respondents could qualify their living places and the sub regions, counties by different factors of quality of life and they gave information about their financial possibilities and living standards. It helped to compare the sub regions of the above part of the country, and – through this - to present the differences invented by the living locally. Our short paper presents only that part of the main results, which is directly connected with judgement of liveability and quality of life of close and wide living place.

### INTRODUCTION

If rural regions, territorial heterogeneity, below-the-national-average qualification level, relatively low incomes, less good possibilities of finding a job and similar attributes and categories are mentioned when talking about the statistical regions of our country, than usually we think about Northern Hungary and the North Great Plain Regions at first. It is supported with a battery of economic statistical indexes describing the situation in North-East Hungary. The regions of this part of the country were the last (North Great Plain) and next-to-the-last position (North Hungary) by GDP per capita in 2005 and 2006, too (HCSO, 2008). We can say the same about the labour and social incomes per capita in the last years (HCSO, 2006) and the number of registered corporations and unincorporated

enterprises per 1000 capita, too (HCSO, 2008). The only difference is that the North Great Plain Region preceded the North Hungarian Region. The situation is not better if we evaluate the sub regions assigned from 1<sup>st</sup> of January of 2007 based on the government resolution No. 240/2006 (XI.30.). 80% of sub regions in North-East Hungary got disadvantaged category and the 47,9% of all disadvantaged and 63,8% of most disadvantaged sub regions in Hungary are here (HCSO, 2008). We do not get more favourable picture, if we examine the state of development of sub regions based on the parliamentary resolution No. 67/2007 (VI. 28.) (Figure 1.), since it is obvious, that most of the sub regions in the examined region are in the last two categories of state of development – backward, stagnating – by the complex index scores of development (HCSO, 2007). All in all the situation is not good either compared to the national situation or within the examined region and statistical sub regions. The strong backwardness and the obvious heterogeneity do not guarantee improving living standard and quality of life of those living there, even it may cause the reduction of that in long-term and the backwardness from the national average. And this was the main reason why we chose North-East Hungary for an analysis of life quality.

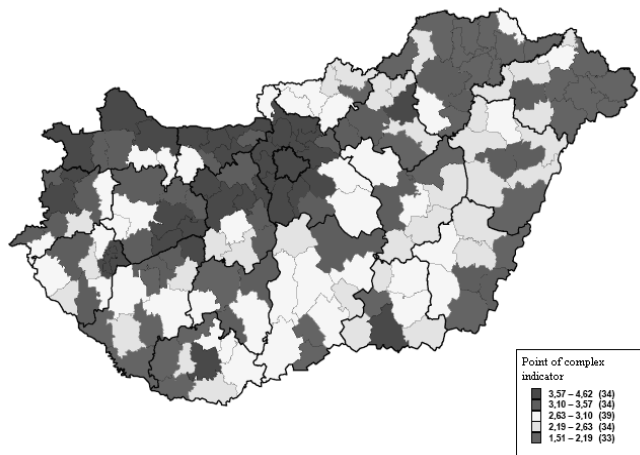


Figure 1. The state of development of sub regions

Source: HCSO, 2007

## MATERIAL AND METHODS

### *Questionnaire survey, questionnaire*

The above mentioned questionnaire survey was realized in North-East Hungary, in April, May and June, 2008. It covered two statistical regions (North Hungarian and North Great Plain Regions), six counties there (Heves, Borsod-Abaúj-Zemplén, Nógrád, Jász-Nagykun-Szolnok, Hajdú-Bihar és Szabolcs-Szatmár-Bereg) and 55 subregions inside

the counties. The population of this region meant the basic multitude, the element number (N) of the sample chosen accidentally was 989. There were 18 domain and 8 personal questions in the applied standard questionnaire, all of them was direct regarding questioning. We used open, closed and scaled questions (Lehota, 2001). There was only one clearly opened question concerning the living place, so the evaluation of this was not a problem, because its main role was controlling the ranking of settlement, settlement category and classifying settlements into sub regions. It could be solved with the help of settlement data in Place Name Book of The Hungarian Republic (HCSO, 2008).

The domain questions in the questionnaire could basically be divided into two groups: the classification of living place and its region by liveability and possibility of job and income level. The type of all questions concerning the qualification of living place and its closer and wider environment is semantic differential scale grouped into interval scale. The qualify the given area unit should have been qualified in a range between 1 and 5 according to the given aspects (Table 1.).

Table 1. Aspects of classification in questionnaire by area levels

County	Subregion	Settlement
<ul style="list-style-type: none"> <li>• Easy approachable</li> <li>• Successful and rich</li> <li>• Capable of development</li> <li>• Full with possibilities</li> <li>• Popular by investments</li> <li>• Visited by tourists with pleasure</li> <li>• Suitable area for the successful entrepreneur activity</li> <li>• Orderly, clean</li> </ul>	<ul style="list-style-type: none"> <li>• Economic position</li> <li>• Unemployment</li> <li>• Infrastructure</li> <li>• Demography</li> <li>• Qualification</li> <li>• Possibilities of the entrepreneur activities</li> <li>• Healthy liveable environment</li> <li>• Complex developed position</li> </ul>	<ul style="list-style-type: none"> <li>• Possibilities of job</li> <li>• Average level of incomes</li> <li>• Level of public education</li> <li>• Level of health care services</li> <li>• Level of public administration</li> <li>• Sport possibilities</li> <li>• Cultural possibilities</li> <li>• Other free time possibilities</li> <li>• Public security</li> <li>• Local public transport</li> <li>• Intercity public transport</li> <li>• Condition of public roads</li> <li>• Communal infrastructure</li> <li>• Cityscape, public sanitation</li> <li>• Natural environment</li> </ul>

Source: own edit, 2008

We used this type of question coming from psychology in this case, because it is suitable for examining the opinions and behaviour of consumers and measuring the attitude (Lehota, 2001). Besides the words with opposite meaning on the two endpoint of the scale have the attribute of general intelligibility, and by this way the direction and intensity of attitude can also be measured (Molnár, 1995). And why it is important in a regional analysis? Why do we cover this in the analysis of questionnaire structure? There is only one reason and it is that identity connected to the area can be measured by the measuring of attitude indirectly. And by this way we can get some information about the local retaining capacity of the given regions.

### *Level of representation*

The survey can be regarded as representative in the case of North-East Hungary as undivided area unit. The 989-strong element number of the sample chosen accidentally is near to 1000-strong largeness of sample, which is suitable to make a country-wide and representative survey in the event of 95,5% level of authenticity accepted and used in the case of social sciences (Lehota, 2001). Besides we reached 210 settlements from the possible 999 in the part of country under consideration, it means 21,02% access ratio. If we further divide it by rank of settlements, than all the six county seat towns, every second city/town and every sixth village can be found there. The proportion of single ranks of settlements is in Figure 2.

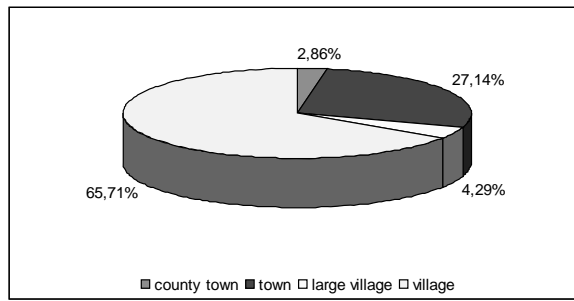


Figure 2. The division of settlements reached in the survey by rank

Source: own edit, 2008

We examined the settlements reached in the survey by settlement-categories too. It is important to note, that the categories are meant only by population number, and not in the complex way described by Pál Beluszky (2003) in his analyses, where the single groups are categories of number of population (largeness), functionality and settlement-hierarchy. We took out the two latter from consideration, because the research of settlement hierarchy was not among our work's main goals. The eight categories of settlements we made on the basis of more research and grouping, as well as joint use of these. After we studied - among other things - the HCSO's grouping by the size of population (Beluszky, 2003), the settlement-dimensions which are typical of the national structure of settlements (Beluszky, 2003), characteristics of formation of settlement-network (Süli-Zakar, 2003), the different directions of categories of towns and cities (Pál, 2001) too, we chose the method of grouping (Kovács, 2002) as base. The settlement categories formed by this way: dwarf village (0-199 inhabitants), tiny village (200-499), small village (500-1999), big village (2000-4999), giant village (5000-9999), small town (10000-19999), middle town (20000-99999) and big city (100000-999999). It should be added that the settlements which have town rank, but do not reach the level of 10000-strong of inhabitants was grouped into the little town class. We can see the division of the settlements by rank in figure 3.

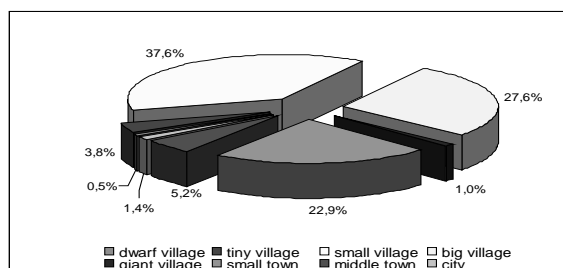


Figure 3. The division of settlements reached in the survey by type

Source: own edit, 2008

The representative level in the case of counties and sub regions should be analysed too, because of the character of some questions in the questionnaire and goals of our work. In this aspect the representative level is not appropriate by territorial distribution of population in all the case of sub regions and counties. In Figure 4 we can see that Heves, Nógrád and Jász-Nagykun-Szolnok are over-represented, while the other three counties did not reach the necessary level of representation. So it is no surprise that the 45,1%-54,9% rate supplying the suitable level of representation is not realized either, in this case it shows 71,4%-28,6% distribution. We think in spite of this that the results and the findings based on those for North-East Hungary, North Hungarian and North Great Plain Regions are authoritative in all case because of the size of element number of the sample and its random selection.

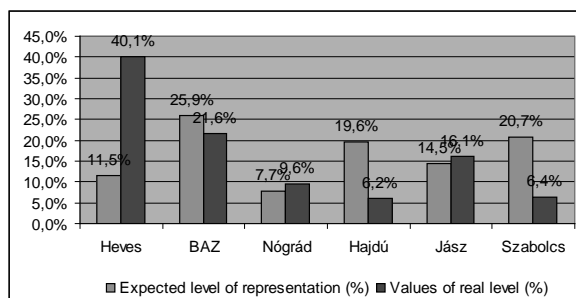


Figure 4. Level of representation by area units

Source: own edit, 2008

If we go on with the analysis of representation on the level of sub regions, we can state that out of the 55 subregions in the examined region 4 are not represented at all (Polgári, Derecske-Lértavérsi, Csengeri, Fehérgyarmati), 30 are under-represented and 21 have level of representation near to the expected level (only 1-2% difference) or over-represented. On the other hand we considered it important to tinge the classification of sub regions by the level of representation because of some professional aspects and the

weight of rates inside the sample (table 1.). On the basis of all these, it can be stated that 65,5% of sub regions in North-East Hungary are at least influential or – in better case – can be considered generally valid.

Table 2. Groups by level of representation

<b>Formed category of sub regions by the rate inside the sample and excepted level of representation</b>	<b>Sub regions (pc)</b>
Non represented (NR)	4
Under represented and absolutely unsuitable for drawing conclusions (UR <sub>au</sub> )	15
Under represented, but it can be influential based on its rate inside the sample (UR <sub>i</sub> )	9
Under represented, but its rate inside the sample is significant (UR <sub>s</sub> )	6
Represented (only 1-2% difference) (R)	5
Over represented (OR)	16
Altogether:	55

Source: own edit, 2008

### *Index of liveability*

We formed three indexes of liveability from the values given as answers based on three questions and formed a complex index of liveability based on the averaged averages of values by every single factor. So we took every single factor into account with the same weight, because the personal standards, value judgements and after all the personal preference of factors of quality of life. Moreover the soft factors are more and more important in judgement of single regions by economic aspects (Piskóti, 2002), we can take them into account with less weight neither.

The above mentioned three indexes are the index of liveability of county (ILC), index of liveability of settlement (ILS), relative index of liveability of sub region (RILS). The names of indices refer to the area units marked in the questions and the last one got the relative attribute because the question asked to judge the given sub region compared to other sub regions. The simple arithmetic mean of these three indices gave the complex index of liveability (CIL) of single area units. While the category or category value as indicator of state of development of the given region was not taken into account, we thought it is practical to use a modified complex index of liveability (MCIL): the complex index of liveability was modified by the value of category of development.

## RESULTS

36,7% of respondents is man, and 63,3% is woman inside the sample. Nearly half of them is under 30 (figure 5.), and almost one fifth is student (figure 6.). Most of the persons involved in the sample get secondary qualification (figure 7.), more than one third works

in the competitive sector (figure 8.) and almost 50% lives in towns, inside this mostly in small and middle town (figure 9-10.). The distribution of respondents by counties was formed in accordance with the territorial distribution of settlements, so by this way most of them is from Heves and Borsod counties (figure 11).

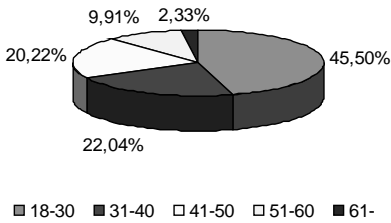


Figure 5. Respondents by age group

Source: own edit (N=989), 2008

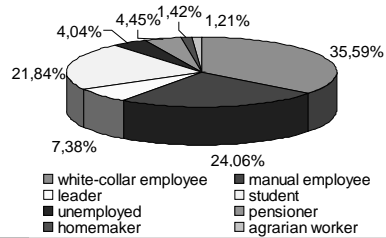


Figure 6. Respondents by profession

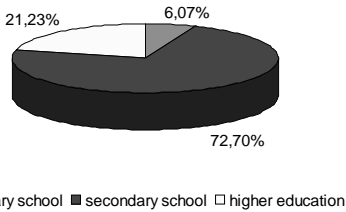


Figure 7. Respondents by qualification

Source: own edit (N=989), 2008

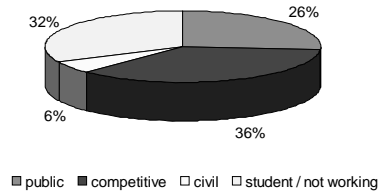


Figure 8. Respondents by sector

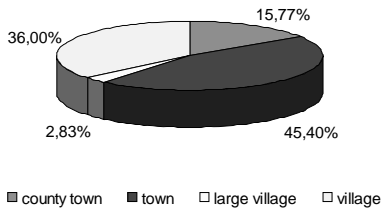


Figure 9. Respondents by rank of the living places

Source: own edit (N=989), 2008

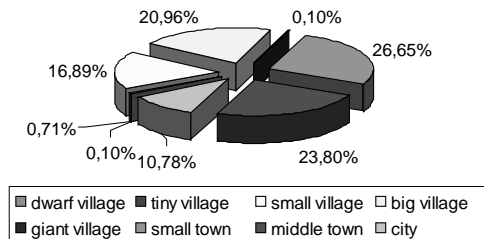


Figure 10. Respondents by sector

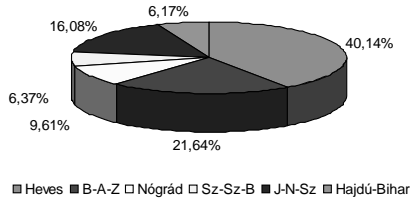


Figure 11. Respondents by county

Source: own edit (N=989), 2008

It is worth to examine the indexes formed by the classification of different area units (county, sub region, settlement) by mentioned factors of life quality not only on the level of sub regions, while the different geographical levels exercise mutual influence in view of economic and social processes. By this way the image of higher regional level influence the image of the closer are unit and inversely. Therefore it's justified to examine the complex index of liveability among the other indexes on the level of North-East Hungary and counties (figure 12.). We can determine it by the average values of regions in question (table 3.).

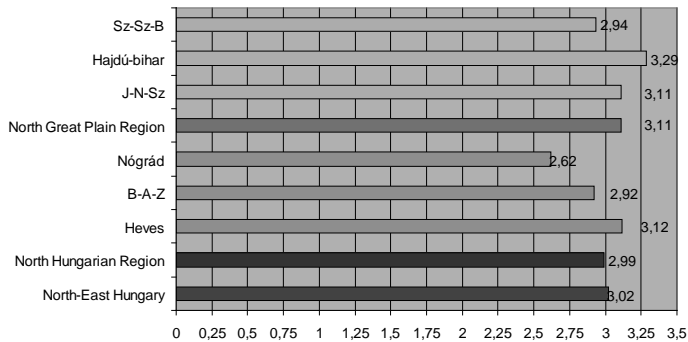


Figure 12. Complex index of liveability on different territorial levels

Source: own edit, 2008

Table 3. Average values of scores given for viewpoints of quality of life on the different regional level in the survey

Variables	North-East Hungary		North Hungarian Region		North Gret Plain Region		Heves County		Borsod-Abaúj-Zemplén County	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
KOME01	3.9009	0.9971	3.9547	1.0359	3.7668	0.8805	4.0856	0.9362	4.0000	1.0790
SIKG01	2.5895	0.9129	2.5212	0.9165	2.7597	0.8826	2.8388	0.7909	2.2336	0.9047
FEJL01	3.1122	0.9146	3.0666	0.9437	3.2261	0.8284	3.2872	0.8722	2.9252	0.9465
LEHE01	2.8301	1.0098	2.8116	1.0300	2.8763	0.9577	2.9975	0.9911	2.6869	1.0256



Variables	North-East Hungary		North Hungarian Region		North Gret Plain Region		Heves County		Borsod-Abaúj-Zemplén County	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
BERU01	2.7300	0.9496	2.6884	0.9494	2.8339	0.9438	2.8589	0.9322	2.6542	0.9305
TURL01	3.2821	1.1348	3.3924	1.1659	3.0071	1.0035	3.4484	1.2187	3.3925	1.0813
SIVA01	2.9232	0.9513	2.8584	0.9467	3.0848	0.9452	3.0479	0.8962	2.7290	0.9600
REND01	3.1375	0.9519	3.0751	0.9886	3.2933	0.8351	3.1486	0.9538	3.0327	1.0676
MULE02	2.4065	0.9611	2.3697	0.9679	2.4982	0.9392	2.6272	0.9332	2.1869	0.9155
AJOV02	2.4681	0.8334	2.4448	0.8575	2.5265	0.7685	2.6650	0.7857	2.1963	0.8980
KOKT02	3.3104	0.8653	3.2635	0.8792	3.4276	0.8192	3.3426	0.8811	3.2570	0.8582
EUSZ02	2.8938	0.8816	2.8102	0.8885	3.1025	0.8295	2.8186	0.8659	2.9159	0.9154
HIVU02	3.0688	0.8732	3.0113	0.8719	3.2120	0.8615	2.9698	0.8493	3.1075	0.8681
SPOR02	3.0839	1.0319	3.0496	1.0634	3.1696	0.9450	3.0655	1.0898	3.1355	1.0639
KULT02	3.0273	1.0677	2.9887	1.0889	3.1237	1.0082	2.9043	1.0569	3.3037	1.0904
ESZA02	3.0061	1.0338	2.9745	1.0623	3.0848	0.9564	2.9446	1.0927	3.1402	1.0341
KOZB02	3.0192	1.0650	2.8980	1.0670	3.3216	0.9995	2.9446	1.0622	2.8692	1.0578
HETO02	2.8868	1.1209	2.8499	1.1486	2.9788	1.0449	2.9622	1.1174	2.8458	1.1667
HKTO02	3.1163	1.0139	3.0567	1.0408	3.2650	0.9285	3.2771	0.9607	2.9112	1.0688
KOZU02	2.4934	0.9874	2.4533	1.0042	2.5936	0.9383	2.4761	1.0013	2.6168	1.0084
KINF02	3.7209	0.8660	3.7011	0.9038	3.7703	0.7628	3.7305	0.8935	3.6916	0.8977
TELK02	3.2841	0.8789	3.2125	0.9134	3.4629	0.7588	3.2242	0.9253	3.2290	0.8928
TEKO02	3.4863	0.8811	3.4618	0.8972	3.5477	0.8382	3.4232	0.9360	3.4720	0.8703
GAHE03	2.7108	0.8697	2.6572	0.8937	2.8445	0.7926	2.9320	0.8121	2.4065	0.8924
MUNE03	2.4894	0.9314	2.4391	0.9422	2.6148	0.8933	2.7179	0.8294	2.1355	0.9716
INFR03	3.4732	0.8646	3.4618	0.9003	3.5018	0.7690	3.5164	0.8749	3.4252	0.9201
NEPH03	2.8665	0.9223	2.8513	0.9508	2.9046	0.8472	3.0957	0.8651	2.6075	0.9715
SZAK03	3.1244	0.7673	3.1020	0.7688	3.1802	0.7622	3.2141	0.7399	3.0421	0.8009
VATE03	2.8584	0.8597	2.8059	0.8559	2.9894	0.8567	2.9244	0.8222	2.7383	0.8649
EEKO03	3.3953	0.8323	3.3555	0.8453	3.4947	0.7917	3.3627	0.8701	3.2991	0.7898
KOMF03	3.0091	0.7575	2.9632	0.7783	3.1237	0.6911	3.1234	0.7194	2.8084	0.8198

Source: own edit, 2008

Variables: KÖME01 – Easily approachable; SIKG01 – Successful and rich; FEJL01 – Capable of development; LEHE01 – Full with possibilities; BERU01 – Popular by investments; TURL01 – Visited by tourists with pleasure; SIVA01 – Suitable area for the successful entrepreneur activity; REND01 – Orderly and clean; MULE02 – Possibilities of job; AJOV02 – Average level of incomes; KOKT02 – Level of public education; EUSZ02 – Level of health care services; HIVU02 – Level of public administration; SPOR02 – Sport possibilities; KULT02 – Cultural possibilities; ESZA02 – Other free time possibilities; KOZB02 – Public security; HETO02 – Local public transport; HKTO02 – Intercity public transport; KOZU02 – Condition of public roads; KINF02 – Communal infrastructure; TELK02 – Cityscape, public sanitation; TEKO02 – Natural environment; GAHE03 – Economic position; MUNE03 – Unemployment; INFR03 – Infrastructure; NEPH03 – Demography; SZAK03 – Qualification; VATE03 – Possibilities of the entrepreneur activities; EEKT03 – Healthy liveable environment; KOMFH03 – Complex developed position

Table 3. (cont.) Average values of scores given for viewpoints of quality of life on the different regional level in the survey

Variables	Nógrád County		Jász-Nagykun-Szolnok County		Hajdú-Bihar County		Szabolcs-Szatmár-Bereg County	
	Average	Spread	Average	Spread	Average	Spread	Average	Spread
KOME01	3.3053	1.1020	3.7421	0.7481	4.0984	0.8700	3.5079	1.0906
SIKG01	1.8421	0.8545	2.7484	0.8111	3.0820	0.9712	2.4762	0.8773
FEJL01	2.4632	0.9087	3.2013	0.7185	3.5082	0.9768	3.0159	0.8705
LEHE01	2.3158	1.0028	2.8239	0.8754	3.1475	1.0776	2.7460	0.9995
BERU01	2.0526	0.7769	2.7484	0.8928	3.0656	1.0307	2.8254	0.9595
TURL01	3.1579	1.1043	2.7673	0.9359	3.6230	0.9860	3.0159	0.9417
SIVA01	2.3579	0.8982	3.1195	0.9026	3.2787	1.0349	2.8095	0.9133
REND01	2.8632	0.9180	3.4025	0.8044	3.2787	0.8969	3.0317	0.8026
MULE02	1.7053	0.8105	2.5472	0.8765	2.6557	1.0146	2.2222	0.9746
AJOV02	2.0842	0.7809	2.6478	0.7039	2.5410	0.8281	2.2063	0.7861
KOKT02	2.9474	0.8551	3.4214	0.8143	3.6393	0.8570	3.2381	0.7559
EUSZ02	2.5368	0.8729	3.0503	0.7859	3.3279	0.8892	3.0159	0.8518
HIVU02	2.9684	0.9615	3.1887	0.8357	3.2295	0.8640	3.2540	0.9327
SPOR02	2.7895	0.9097	3.1132	0.8929	3.2459	1.0748	3.2381	0.9455
KULT02	2.6316	1.0524	2.9686	0.9441	3.5246	1.0894	3.1270	0.9918
ESZA02	2.7263	0.9390	3.0126	0.9208	3.2459	1.0433	3.1111	0.9523
KOZB02	2.7684	1.1056	3.4025	1.0857	3.3934	0.7806	3.0476	0.9233
HETO02	2.3895	1.1326	2.9119	1.0212	3.0328	1.0796	3.0952	1.0733
HKTO02	2.4632	1.0191	3.2956	0.9040	3.3607	0.9315	3.0952	0.9790
KOZU02	1.9895	0.8690	2.5975	0.9621	2.7049	0.9191	2.4762	0.8955
KINF02	3.6000	0.9609	3.7358	0.7668	4.0000	0.7303	3.6349	0.7471
TELK02	3.1263	0.9137	3.5346	0.7359	3.5082	0.7664	3.2381	0.7770
TEKO02	3.6000	0.7773	3.6289	0.8310	3.5902	0.7827	3.3016	0.8732
GAHE03	2.0737	0.7752	2.8616	0.7333	3.0328	0.8360	2.6190	0.8506
MUNE03	1.9579	0.9216	2.7170	0.8201	2.7213	0.9333	2.2540	0.9498
INFR03	3.3158	0.9483	3.5597	0.6898	3.6885	0.7862	3.1746	0.8527
NEPH03	2.3789	0.9360	2.8428	0.7918	3.2131	0.8586	2.7619	0.9108
SZAK03	2.7684	0.7064	3.1824	0.6922	3.4098	0.8037	2.9524	0.8314
VATE03	2.4632	0.8729	3.0440	0.8062	3.0000	0.8563	2.8413	0.9706
EEKO03	3.4526	0.8601	3.5912	0.7973	3.3934	0.7366	3.3492	0.8064
KOMF03	2.6421	0.7568	3.1635	0.6352	3.2459	0.7672	2.9048	0.7120

Source: own edit, 2008

Variables: KÖME01 – Easily approachable; SIKG01 – Successful and rich; FEJL01 – Capable of development; LEHE01 – Full with possibilities; BERU01 – Popular by investments; TURL01 – Visited by tourists with pleasure; SIVA01 – Suitable area for the successful entrepreneur activity; REND01 – Orderly and clean; MULE02 – Possibilities of job; AJOV02 – Average level of incomes; KOKT02 – Level of public education; EUSZ02 – Level of health care services; HIVU02 – Level of public administration;

SPOR02 – Sport possibilities; KULT02 – Cultural possibilities; ESZA02 – Other free time possibilities; KOZB02 – Public security; HETO02 – Local public transport; HKTO02 – Intercity public transport; KOZU02 – Condition of public roads; KINF02 – Communal infrastructure; TELK02 – Cityscape, public sanitation; TEKO02 – Natural environment; GAHE03 – Economic position; MUNE03 – Unemployment; INFR03 – Infrastructure; NEPH03 – Demography; SZAK03 – Qualification; VATE03 – Possibilities of the entrepreneur activities; EEKT03 – Healthy liveable environment; KOMFH03 – Complex developed position

Table 4. Judgement of liveability of sub region by the indexes by results of questionnaire

	Sub region	CIL		Subregion	SSD		Subregion	MCIL
1.	Sátoraljaújhelyi*	3,6519	1.	Gyöngyösi	4	1.	Debreceni	3,7791
2.	Debreceni	3,5581		Egri	4	2.	Egri	3,7091
3.	Vásárosnaményi*	3,4639		Debreceni	4	3.	Gyöngyösi	3,6854
4.	Egri	3,4182		Hajdúszoboszlói**	4	4.	Hajdúszoboszlói**	3,6088
5.	Gyöngyösi	3,3707		Jászberényi	4	5.	Jászberényi	3,5885
6.	Tiszaújvárosi	3,3187		Nyíregyházai	4	6.	Nyíregyházai	3,5649
7.	Mezőtúri	3,2746	2.	Bélapátfalvai	3	7.	Sátoraljaújhelyi*	3,3259
8.	Hajdúböszörményi*	3,2236		Hatvani	3	8.	Vásárosnaményi*	3,2319
9.	Hajdúszoboszlói**	3,2176		Pétervásárai	3	9.	Tiszaújvárosi	3,1593
10.	Ibrány-Nagyhalászi*	3,2028		Abaúj-Hegyközi*	3	10.	Hajdúböszörményi*	3,1118
11.	Nyírbátori*	3,2014		Mezőkövesdi	3	11.	Ibrány-Nagyhalászi*	3,1014
12.	Szerencsi	3,1797		Miskolci	3	12.	Nyírbátori*	3,1007
13.	Jászberényi	3,1769		Sátoraljaújhelyi*	3	13.	Szerencsi	3,0899
14.	Pétervásárai	3,1646		Szerencsi	3	14.	Pétervásárai	3,0823
15.	Hajdúhadházi**	3,1302		Tiszaújvárosi	3	15.	Hajdúhadházi**	3,0651
16.	Nyíregyházai	3,1298		Tokaji	3	16.	Tokaji	3,0477
17.	Balmazújvárosi**	3,1219		Balassagyarmati**	3	17.	Miskolci	2,9830
18.	Sárospataki	3,1073		Hajdúböszörményi*	3	18.	Hatvani	2,9783
19.	Tokaji	3,0955		Hajdúhadházi**	3	19.	Püspökladányi**	2,9706
20.	Bodrogközi*	3,0417		Püspökladányi**	3	20.	Mezőkövesdi	2,9614
21.	Nagykállói*	3,0014		Szolnoki	3	21.	Szolnoki	2,9535
22.	Miskolci	2,9661		Ibrány-Nagyhalászi*	3	22.	Kisvárdai*	2,9222
23.	Hatvani	2,9565		Kisvárdai*	3	23.	Balassagyarmati**	2,9053
24.	Püspökladányi**	2,9413		Nyírbátori*	3	24.	Bélapátfalvai	2,8921
25.	Mezőkövesdi	2,9228		Vásárosnaményi*	3	25.	Abaúj-Hegyközi*	2,7556
26.	Szolnoki	2,9071	3.	Füzesabonyi	2	26.	Mezőtúri	2,6373
27.	Sziksói**	2,8822		Hevesi	2	27.	Balmazújvárosi**	2,5609
28.	Tiszafüredi*	2,8694		Bodrogközi*	2	28.	Sárospataki	2,5537
29.	Füzesabonyi	2,8550		Edelényi	2	29.	Bodrogközi*	2,5208
30.	Kisvárdai*	2,8444		Kazincbarcikai	2	30.	Nagykállói*	2,5007
31.	Salgótarjáni	2,8340		Mezőcsáti	2	31.	Sziksói**	2,4411
32.	Balassagyarmati**	2,8106		Ózdi	2	32.	Füzesabonyi	2,4275

	Sub region	CIL		Subregion	SSD		Subregion	MCIL
33.	Baktalórántházai**	2,8006		Sárospataki	2	33.	Salgótarjáni	2,4170
34.	Hevesi	2,7972		Sziksói**	2	34.	Hevesi	2,3986
35.	Bélapátfalvai	2,7842		Bátonyterenyei	2	35.	Berettyóújfalui*	2,3602
36.	Berettyóújfalui*	2,7204		Pásztói	2	36.	Törökszentmiklósi*	2,3593
37.	Törökszentmiklósi*	2,7185		Salgótarjáni	2	37.	Ózdi	2,3334
38.	Ózdi	2,6669		Szécsényi	2	38.	Kazincbarcikai	2,3071
39.	Kazincbarcikai	2,6141		Balmazújvárosi**	2	39.	Karcagi	2,3041
40.	Karcagi	2,6081		Berettyóújfalui*	2	40.	Pásztói	2,3038
41.	Pásztói	2,6076		Karcagi	2	41.	Szécsényi	2,2414
42.	Abaúj-Hegyközi**	2,5111		Kunszentmártoni*	2	42.	Mezőcsáti	2,2386
43.	Szécsényi	2,4828		Mezőtúri	2	43.	Edelényi	2,2076
44.	Mezőcsáti	2,4772		Törökszentmiklósi*	2	44.	Bátonyterenyei	2,1340
45.	Encsi**	2,4600		Nagykálói*	2	45.	Kunszentmártoni*	2,0694
46.	Edelényi	2,4152	4.	Encsi**	1	46.	Tiszafüredi*	1,9347
47.	Bátonyterenyei	2,2681		Rétságai*	1	47.	Baktalórántházai**	1,9003
48.	Mátészalkai**	2,2079		Tiszafüredi*	1	48.	Encsi**	1,7300
49.	Kunszentmártoni*	2,1389		Baktalórántházai**	1	49.	Mátészalkai**	1,6040
50.	Rétságai*	1,8417		Mátészalkai**	1	50.	Rétságai*	1,4208
51.	Tiszavasvári*	1,7870		Tiszavasvári*	1	51.	Tiszavasvári*	1,3935

Source: own edit, 2008

Legend: \* Under represented and absolutely unsuitable for drawing conclusions ( $UR_{un}$ )

\*\* Under represented, but it can be influential based on its rate inside the sample ( $UR_i$ )

As it is obvious from Figure 12., the closer and wider living place is judged a little bit better by those living in North Great Plain Region than in the neighbouring region. The outstanding value of Hajdú-Bihar stands primarily in the background of this. The above values reflect the facts in accordance with the generally known economic statistics, that the position of Szabolcs-Szatmár-Bereg, Nógrád és Borsod counties is not so good. It is true that in this case Nógrád is the place, which presents considerable backwardness among the other counties in the examined region.

On the level of sub regions the spread of indexes determined in the case of every single sub regions is very small, so the differences between them are negligible. So we could define mostly the same rank based on the indexes of liveability of county, sub region, settlement and complex index of liveability. In spite of this we define the rank of liveability of sub regions by the help of the complex index of liveability (CIL) and the complex index of liveability (MCIL) modified by score of state of development (SSD) (Table 4.). The modified value was needed because of the interest of eliminating of deforming effects, which is perceptible through the comparing of two ranks. In spite of this it was not successful completely owing to the under-representation of several sub regions, too. By this way the results can be explained only with reservations.

If we check the table including the rank, we can see that there is no sub region with value 5 (dynamic developing) based on the values given by the respondents in spite of the fact that we used the average value and modus together to define the final category of development of subregions. We can meet only developing (4), closing up (3), stagnating (2) and lagging (1) categories. It is also obvious, that only half of the sub regions of county seat towns got into the developing group, and the Szolnok, Miskolc and Salgótarján sub regions did not get there, the latter one was even ranked into the stagnating. Beside the sub regions of county towns the Jászberény, Gyöngyös and Hajdúszoboszló sub regions got into the developing rank, but it is true, this latter one is under represented, so it can be handled partly with reservations. Almost half of the sub regions examined in detail – represented in some form – went into the group of stagnating and lagging sub regions (figure 13.).



Figure 13. Grouping of state of development of sub regions based on answers of respondents

Source: own edit, 2008

The distribution of sub regions based on state of development is strongly similar to the distribution by the modified complex index of liveability (figure 14.). Of course there are some little differences.



Figure 14. The modified complex index of liveability of sub regions

Note: subregions ranked into the category of 0-0,799 are not represented

Source: own edit, 2008

If we make a comparison between the classifications based on the parliamentary resolution No. 67/2007. (VI. 28.) and the grouping based on the survey, than we can find several differences in spite of the fact that the two results are similar. For example, the Eger subregion ranked into the highest class (dynamic developing) by the resolution, but it got into the developing group based on the results of the survey. Over and above, while the Miskolc, Tiszaújváros, Szolnok, Hatvan, Gyöngyös, Nyíregyháza, Debrecen and Hajdúszoboszló sub regions got developing label from HCSO, the inhabitants valued similarly only in case of the last five. The others regarded them as closing up sub regions. On other hand, the inhabitants of Jászberény sub region see their position better than it is reflected by the economic statistics. Other interesting differences cannot be mentioned, because the sub regions ranked into the lagging, stagnating and closing up classes are mostly the same like in the HCSO grouping. Besides, none of them gives reason to be optimistic, the liveability indices either.

## CONCLUSIONS

In conclusion we can see on the basis of the above, that the region is very heterogeneous not only by economic-social indices and their values, but by the evaluation of the inhabitants, too. The inhabitants in the sub regions of county towns – although not uniformly - or in sub regions with a bigger potential of tourism or located relatively near to Budapest usually evaluated their situation more positively. It is understandable, because the economic power of county towns, and the possibilities provided by them move the level of liveability of the given area unit and living standard into a positive direction. Think about the possibilities of jobs, wages, public transport, services, environment, etc. Having this in mind, it is not so surprising that the evaluation of Miskolc, Salgótarján and Szolnok sub regions is different from the other sub regions of county towns, in spite of the recent positive changes in the mentioned areas.

Our other important statement based on the cartograms and values of indexes is that – although we underline, that our statement should be handled with reservations due to the different level of representation – the attitude connected to the quality of life and state of development does not necessarily follow the facts supported by statistic indexes and economic numbers. Not the world of numbers, but the daily personal experiences influence those living in the given region. We have to calculate with several elements of preference, personal value judgement and factors which are not measurable by the economic and social statistics. We can influence these only indirectly, with social sensitivity and respecting the communal norms. And to be honest, in the spell of economic effectiveness, profit and market it is not a simple exercise, but this region is waiting for this - among some other things.

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