

A detailed map of the Slovak Republic, showing its administrative boundaries and various regions. The map is overlaid with several colored areas: a large green hatched area covering most of the country, a red hatched area in the western part, and a blue hatched area in the southern part. Major cities like Bratislava, Košice, and Žilina are visible. The text is centered over the map.

# **NATIONAL REPORT FOR THE PREPARATION OF THE MOSCOW CEMAT DECLARATION**

## **The Slovak Republic**

Bratislava, November 2009

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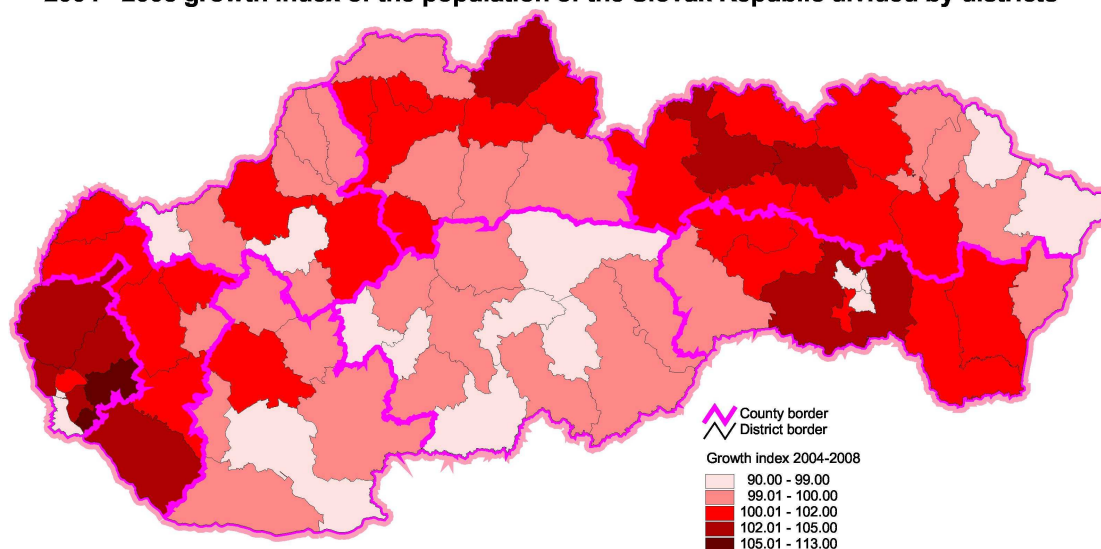
# 1. Global evolution of territorial structures and imbalances over the past five years

## *Demographic evolution*

- **Main regions/areas characterised by densification (population growth, migration)**

As of 31<sup>st</sup> December 2008, the Slovak Republic reached a population of 5 412 254, which compared to 2004 (31<sup>st</sup> December 2004), translates into an increase of 27 432 people. 57 360 children were born in 2008, an increase of 3 613 from 2004; whereas 53 164 people died in 2008, which was 1 312 more than in 2004). Natural population growth thus totalled 4 196 people. Slovakia gained 7 060 people through foreign migration. 8765 people immigrated while 1 705 people emigrated. Hence, the total population growth of the Slovak Republic amounted to a population of 11 256, which meant an increase of 6 487 people since 2004. Population growth rates in the Slovak Republic between 2004 and 2008 totalled 0.51 %, whereas the population growth index of the Slovak Republic within the observed period amounted to 100.51, which makes the country belong to a stationary type. On the regional level of Slovakia, Bratislava county recorded the most substantial population growth between 2004 and 2008 (15 446 people, growth index 102.57), followed by Prešov county (7 210 people, growth index 100.90), Trnava county (6 736 people, growth index 101.22), Košice county (5 001 people, growth index 100.65) and Žilina county (2 218 people, growth index 100.32). Three counties – Banská Bystrica county, Nitra county and Trenčín county – have recorded a decrease in the population, which is indicated by their growth index figures being reduced to below 100. Bratislava county is the most densely populated county, and its population density (300 inhabitants/km<sup>2</sup>) sets it clearly apart from the cluster of remaining counties. As for development of natural movements, Prešov county, Košice county and Žilina county are all characterized by continual natural population growth; whereas Trnava county, Trenčín county, Nitra county and Banská Bystrica county have recorded, within the duration of the whole monitored period, a decrease in natural population. Bratislava county is a third category, in which natural population decrease began a weakening trend in 2004, only to have that natural population decrease restored again in 2006. Regarding the population movements, Bratislava and Trnava counties are among those whose population grew the most between 2004 and 2008. These counties were able, despite their negative natural population growths, to increase the number of their inhabitants; and these counties have a distinctly positive migration balance. In 2008, Trenčín county joined the above-described group. While Nitra county also recorded positive migration balance, it could not compensate for its losses from negative population growth. Žilina county recorded gains from natural movements and beginning in 2005, also from migration. Banská Bystrica county has recorded losses from both types of population movements. In Košice and Prešov counties, losses caused by emigrated population are compensated by natural population growth. In 2008, with the sole exception of Banská Bystrica and Nitra counties, all other counties have recorded total population growth.

### 2004 - 2008 growth index of the population of the Slovak Republic divided by districts



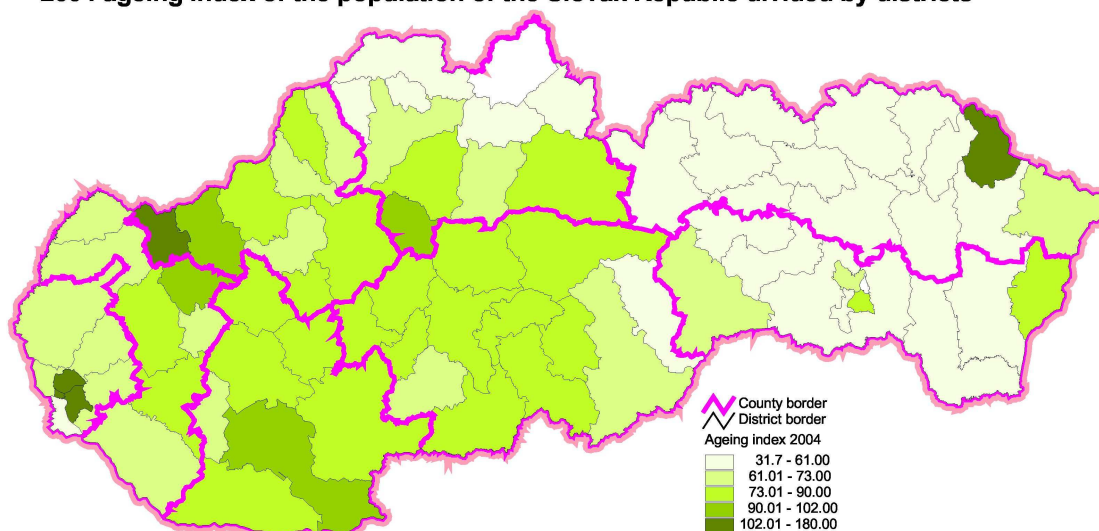
- **Main regions/areas affected or likely to be affected by strong population ageing and/or decline (emigration)**

As for the population age structure, it might be evaluated that the age composition is more favourable in the eastern parts of the Slovak Republic and the outermost northern part of Central Slovakia. The process of population aging, now typical for the general Slovak population, does not take its course in all counties with equal intensity. The most intensive aging is visible in Bratislava county, followed by Trenčín county and Nitra county, in which the ratio of pre-productive and post-productive population segments are becoming almost equal; and it is reasonable to assume that within a short time frame (in the short run), a reversion of values will occur, i.e. the post-productive population segment will surpass the pre-productive population segment. These counties also exhibit the highest median age (almost 40 years). The aging process progresses at the slowest pace in Prešov county, where the difference between ratios of pre-productive and post-productive population segments presents more than 8 points in favour of 0-14 years age group. Median age in Prešov county is 36 years. Median age of the Slovak population climbed to 38.8 years, reaching an all-time high. Compared to 2004, there has been a drop in the child population segment (0-14 years) apparent in all counties; and there has been an increase in the proportion of people (within the whole population) in their productive and post-productive age. The aging index (Sauvy index), which directly addresses the aging process, has a long term increasing trend, both in Slovakia as a whole and all of its counties separately.

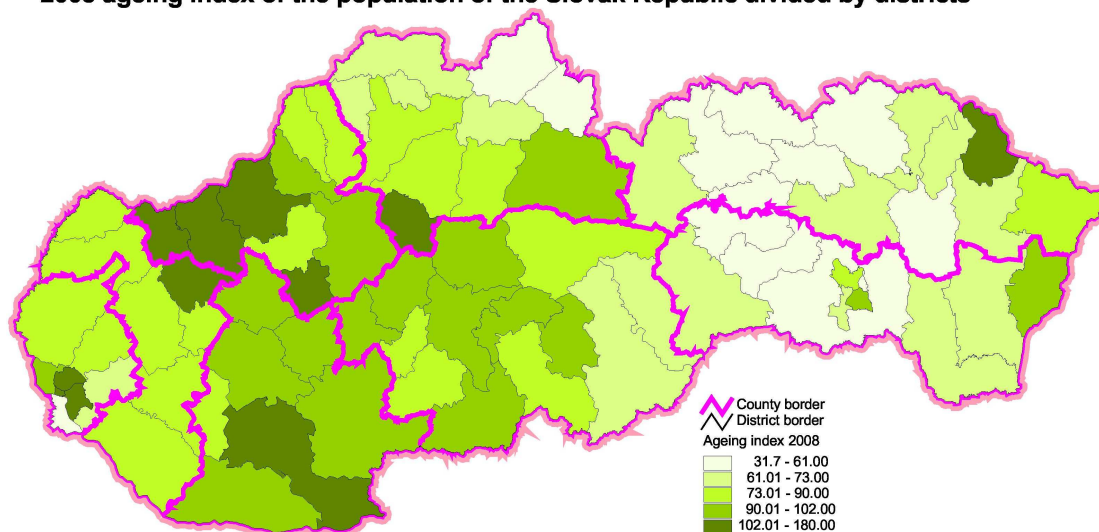
	SR	Bratislava county	Trnava county	Trenčín county	Nitra county	Žilina county	Banská Bystrica county	Prešov county	Košice county	
<b>Age group</b>	<b>Year 2004 (%)</b>									
0-14	17,07	13,51	15,80	15,66	15,40	18,39	16,46	20,82	18,82	
15-64	71,31	74,35	72,65	71,95	71,71	70,52	71,39	68,81	70,34	
65+	11,62	12,14	11,55	12,39	12,89	11,09	12,15	10,37	10,84	
<b>Age group</b>	<b>Year 2008 (%)</b>									
0-14	15,45	12,88	14,08	13,62	13,82	16,39	14,94	18,76	17,53	
15-64	72,46	74,53	73,70	73,29	72,84	72,14	72,39	70,57	71,25	
65+	12,09	12,59	12,22	13,09	13,34	11,47	12,67	10,67	11,22	
<b>Mean age</b>	<b>Year 2004 (Years)</b>									
Total	37,13	39,06	37,66	38,02	38,45	36,26	37,72	34,78	36,01	
<b>Mean age</b>	<b>Year 2008 (Years)</b>									
Total	38,25	39,86	38,90	39,38	39,58	37,46	38,85	35,95	37,02	
<b>Ageing index</b>	<b>Year 2004 (the number of persons 65+ per 100 persons aged from 0 to 14)</b>									
Total	68,12	89,91	73,13	79,10	83,67	60,30	73,85	49,79	57,60	
<b>Ageing index</b>	<b>Year 2008 (the number of persons 65+ per 100 persons aged from 0 to 14)</b>									
Total	78,26	97,67	86,85	96,15	96,54	69,95	84,80	56,89	64,04	

Source: Statistical Office of the Slovak Republic

### 2004 ageing index of the population of the Slovak Republic divided by districts



### 2008 ageing index of the population of the Slovak Republic divided by districts



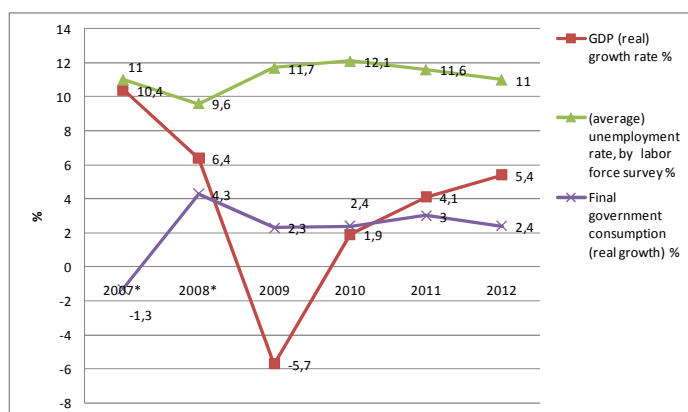
## Economic evolution

In 2008, the Slovak economy was the fastest growing among the members of OECD and EU 27. Its growth had been accelerated with no threats to the macroeconomic stability until 2000, and while recording its peak in 2007, the dynamics of the economic growth have been declining since 2008. Currently, the global economy is facing the worst recession since the end of WWII. Since the second half of 2008, the Slovak economy has been experiencing a synchronized decline of economic activities, an increase in unemployment and public administration expenditures.<sup>1</sup>

Slovakia's economy is extremely small and open (87% of GDP generated by export), which is mostly affected by the economic crises by means of foreign trade and via downturn in confidence regarding restoration of positive economic development. The Slovak financial sector has been affected by the financial crisis only marginally; hence the feeling of the economic recession has only been marginal. Slow-downs in the economic activities of countries, in which Slovakia's most important trading partners reside, have been reflected in Slovakia manifesting the full effects of the fallout from the global economic recession.

The development of the Slovak economy will be tied closely to the development of the economies of other EU member states, particularly to those of Germany and the Czech Republic. Export-wise, Germany is our key trading partner and should this year, according to the predictions of European Commission, experience a 5.4% contraction in their GDP.

It is being assumed that 2010 holds the potential for a revival of the economic performance and gradual consolidation of the public finance deficit. With a gradual revival of economic growth and especially the strengthening of foreign demand, the unemployment rate should be progressively declining. Yet again there should be new jobs created in the economy. The following chart offers a summarization of the development predictions up to the year 2010.



Prognosis of selected macroeconomic indicators development in SR, source: MF SR, 09/09

<sup>1</sup> Source: EC prognosis, [http://ec.europa.eu/economy\\_finance/publications/publication13290\\_en.pdf](http://ec.europa.eu/economy_finance/publications/publication13290_en.pdf)

- **Main regions characterised by significant economic development (Gross domestic product – GDP, employment)**

From the viewpoint of economic performance and employment, the key region<sup>2</sup> is Bratislava county, esp. the whole Bratislava-Trnava settlement core area with Bratislava city as its centre. Bratislava county's position is determined mostly by the status of Bratislava city, which is the administrative, economic and cultural centre of the Slovak Republic; while it is further highlighted by its geographical location and relations with neighbouring developed settlement agglomerations (Vienna agglomeration and economically developed regions of north-western Hungary) along with the very position of Bratislava city, which is seated on a crossroad of important corridors to the EU.

Considering its position, relative to the EU, Bratislava county is a significant region foremost because of its economic performance<sup>3</sup>, growth dynamics, employment and unemployment rates. In the above-stated indicators Bratislava county has achieved figures above the average of the OECD countries. Bratislava county's areas for improvement are, within the international context, mostly in work productivity and innovative performance.

Within Slovakia, Bratislava county has assumed a dominant position in GDP generation, work productivity, employment and innovative performance, all of which are well exemplified by the volume of patents, expenditures on research and development and employment in high-tech industrial segments. Industrial subjects are clustered mostly in the area of Bratislava county and in the region of Záhorie. As for the sector structure of the industrial base, the following prevails: automotive industry, chemical industry, electrical engineering and food-processing industry. The industrial activities of the remaining counties (not in proximity to Bratislava) are primarily based on utilization of local resources (manufacture of building materials, processing of vegetables, fruit, particularly grapevine and wood). Through a radical transformation of agriculture and industry, a massive advancement in the sector of services has been achieved and in 2006 employed 78% of the labour market.

From a quantitative and qualitative viewpoint, Bratislava county is the most significant settlement agglomeration in the Slovak Republic. Production potential of the region, due mostly to the key position of services and diversified industrial production with a dominant position in the innovative sectors of the automotive industry and electrical engineering, has met all the conditions necessary to successfully deal with the changes brought on by the cyclical or shock effects of the global economy's development as well as by the various impacts of the economic transformation on the national economy.

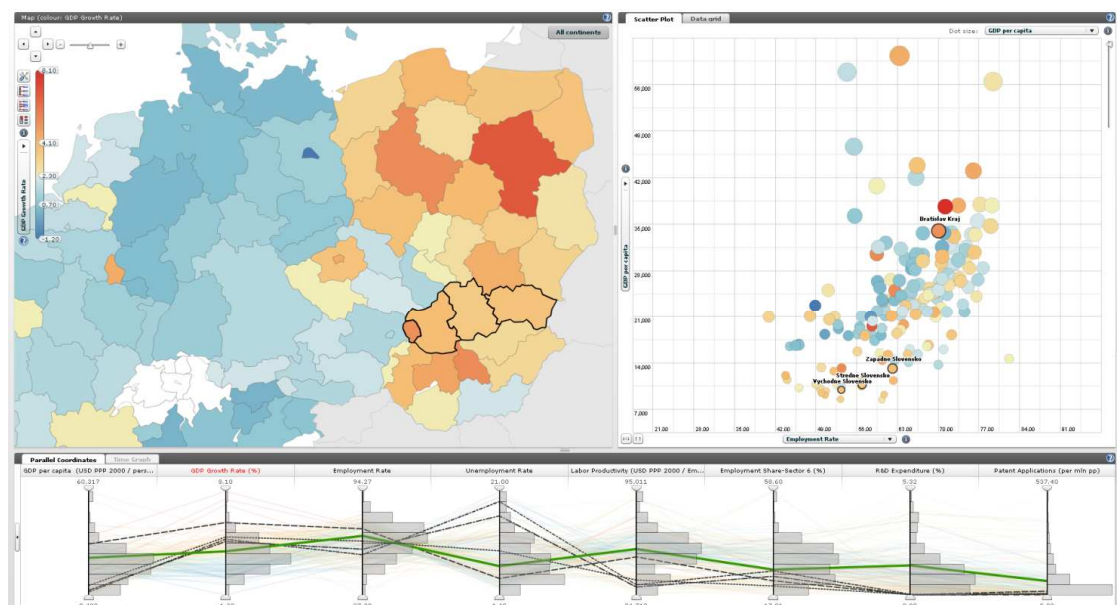
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<sup>2</sup> According to the NUTS2 classification

<sup>3</sup> Expressed by means of GDP per capita in purchasing power parity



Selected structural indicators of the regional development in the SR as of 2006, source: OECD



- **Main regions where the knowledge economy is concentrated and developing**

While the region of Bratislava county belongs among the richest regions in the EU, Eastern Slovakia belongs among the poorest in the EU. It is a region that is affected the most by conversion and major structural problems of both the SR and EU.

The unemployment in Slovakia increases from the west to the east, with the highest figures recorded in the eastern most regions of Slovakia. Unemployment remains the key factor to the poverty and social exclusion of citizens. The main cause can be seen as an imbalance between supply and demand within the labour market, which is being affected by the demographic development, insufficient number of newly-created jobs, elasticity and quality of lifelong education, along with the functioning of the labour market alone. Even young citizens who have attained a secondary school education have problems getting integrated into the work process.

When compared to the overall Slovak average, Eastern Slovakia has been achieving comparably worse structural indicator results. Economic performance and work productivity of the region belong among the lowest in the EU. This situation is a mere reflection of a long-term tendency of energy-demanding production, as well as high demands of production placed on work. There is a lack of investment into research and development, innovative processes, education, informatization, etc., which would increase economic performance as well as production efficiency. So far, positive impacts have been mostly exogenous in nature, resulting from positive FDI effects.

Economic performance of *Slovakia – East* is well below the EU average, and also falls below the overall average of the Slovak Republic. Economic performance of the Eastern Slovakia region grows at the same pace as the economic performance of the Slovak Republic. That means that without additional development stimuli, it will never reach the average of the SR and the regional differences will be lingering.

State subsidies and other public administration priority investments aimed at regions which are lagging-behind, only began to be implemented more intensively in 2006. Consequently, their effects will not be felt for a longer time.

- **Main regions benefiting from the development of the residential (retirees) and tourist economy**

The pace of housing development corresponds to the condition of the economy, which determines the value of grants and loans, as well as the real income of each individual or family. The Slovak Republic has been recording continual growth of finished residential units since 1993, reaching an all-time high in 2008. Intensity of the housing development, which can be expressed as number of finished residential units per 1000 inhabitants, reached 3.18 in 2008. Despite the fact that it is the highest figure ever recorded in the SR<sup>4</sup>, the intensity of this housing development still does not reach the levels of most of the EU member states<sup>5</sup>.

Development of the number of dwellings approved by house inspection and intensity of housing development, source: ŠÚ SR

County	Number of dwellings approved by house inspection				Intensity of housing development			
	2005	2006	2007	2008	2005	2006	2007	2008
Banská Bystrica	772	926	934	1 002	1.3	1.5	1.5	1.6
Bratislava	4 673	4 307	5 726	5 563	8.4	7.8	10.3	9.9
Košice	944	799	1 029	1 270	1.6	1.3	1.7	2.1
Nitra	1 087	1 352	1 267	1 427	1.5	1.9	1.8	2.0
Trenčín	1 575	1 247	1 148	1 470	2.3	1.8	1.7	2.1
Trnava	2 055	2 646	2 688	2 739	3.1	4.0	4.1	4.2
Prešov	1 760	1 352	1 711	1 575	2.2	1.7	2.1	2.0
Žilina	1 997	1 815	1 970	2 138	2.6	2.3	2.5	2.8
SR overall	14 863	14 444	16 473	17 184	2.8	2.7	3.0	3.2

From the viewpoint of regional divisions, it can be observed, similarly as in the previous years, that the most residential units built were in Bratislava county (5 563 dwellings), which amounts to almost one third (32.37%) out of the total number of dwellings built. The second highest number was recorded in Trnava county, with 2 739 dwellings being built (15.94%), followed by Žilina county with 2 138 dwellings built (12.44%). On the other side of the spectrum, the least number of built residential units was in 2008 recorded in Banská Bystrica county, with 1 002 dwellings (5.83%), and in Košice county with 1 270 dwellings built (7.39%).

Between 2005 and 2008, Bratislava county and Trnava county profited most from the growth of newly-built residential units. These counties recorded both the highest

<sup>4</sup> The lowest figure was recorded in 1995, when only 1.15 dwellings per 1000 inhabitants were built

<sup>5</sup> According to the Housing statistics in the European Union 2005/2006 publication, the stated indicator in 2004 totalled to 4.0 in Holland, 4.9 in Denmark, 5.2 in Austria, 5.8 in Finland, 6.0 in France, 12.6 in Spain and even 19.0 in Ireland. In V4 countries, housing development intensity amounted to 2.8 in Poland, 3.2 in the Czech Republic and 4.3 in Hungary.

number of newly-built dwellings and the highest aggregate values of housing development intensity. Within the monitored period, the number of newly-built dwellings per 1000 inhabitants increased, on average, by 1.5 (Bratislava county) and 1.1 (Trnava county). Development in the region of Bratislava county is determined mostly by its high economic growth and increasing purchasing power of the inhabitants either living or working in the region. The development in the Trnava region is determined, apart from the effects of economic growth, by its population decrease in the monitored period (- 3 422). Regions of Trenčín and Prešov counties were among the ones least profiting from housing development in the observed period—as both recorded a drop in number of newly-built dwellings per 1000 inhabitants by 0.2 points. In the case of Prešov county, the decline in housing development intensity was caused by weak economic performance and capitalization of households; as well as by a growth in population (5 359) within the observed period.

Geographic location and natural conditions of the Slovak Republic are favourable for the development of tourism. However, its potential is being utilized insufficiently. Although the active tourism revenues of the SR are growing, the percentage of tourists with multiple-day stays is dropping at the same time. Slovakia is only a transit country, not a target destination, for 97% of foreign tourists. As for the development of tourist traffic, the Slovak Republic falls behind its neighbouring countries. Economic activities of tourism only contribute to the GDP by approximately 6%, which is about the world average. Between 2006 and 2008, following a previous stagnation and decline, the number of tourism-related overnight stays in accommodation facilities grew, as well as the capacity of the accommodation facilities themselves. Such development was caused by strong economic growth and strengthened purchasing power of domestic tourists. 2009 will bring a substantial drop in tourist economy. Capacity utilization of hotels sharply declined, not even being affected by a current drop in accommodation prices—surprisingly also in Bratislava, which has always faced an excess pressure of demand.

A survey performed by Slovak Agency for Tourism<sup>6</sup> shows that, despite significant general decline, therapeutic spas have been hurt least from the fallout generated by the economic crisis. While other segments recorded decreases below 10%, the spa segment managed to keep its decline at 10%. Travel agencies also experienced negative fallout somewhat less intensively. The most significant negative impacts are visible at restaurants and dining facilities, boarding houses and hotels up to three stars. A majority of respondents (80%) have experienced fallout between the levels of perceptible and very strong (above 20% decline). Some respondents reported a decline above 70%, which in operational terms can be considered as a termination of their business.

From the point of view of regional divisions within the SR, fallout from the economic crisis in the tourism segment can be estimated based on the results of the survey shown below, the structure of tourist facilities and overall economic performance. The region of Prešov county, which is the poorest and least economically performing region, has the highest number of accommodation facilities struck by the recession. The second region that is affected by a drop in tourism revenues will most likely be the region of Žilina county. This region has clusters of significant accommodation and restaurant facilities which typically are threatened most by the recession (hotels up to 3 stars, restaurants and boarding houses).

<sup>6</sup> Source: [http://new.sacr.sk/fileadmin/user\\_upload/Prieskumy/Prieskum\\_dopadov\\_HK-final-2009.pdf](http://new.sacr.sk/fileadmin/user_upload/Prieskumy/Prieskum_dopadov_HK-final-2009.pdf)

Selected indicators of development in the SR, source: ŠÚ SR

County	Facility type	Number of overnight stays of visitors in accomm. facilities					Number of accommodation facilities				
		2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Bratislava	Hotels	1 010 980	1 111 332	1 152 269	1 153 349	1 210 882	67	71	76	88	88
	Boarding Houses	96 193	99 634	103 167	88 692	62 994	25	26	27	31	33
	Camping	73 779	63 829	51 645	35 945	43 202	4	4	3	3	3
Trnava	Hotels	928 452	914 400	894 811	885 561	911 570	43	39	41	71	69
	Boarding Houses	40 365	55 482	54 905	67 149	94 704	27	27	27	47	49
	Camping	36 943	33 437	28 135	28 613	27 786	9	9	9	10	11
Trenčín	Hotels	229 058	235 509	228 082	251 030	302 376	42	42	41	49	54
	Boarding Houses	66 986	68 571	60 544	85 932	118 373	37	32	31	60	65
	Camping	34 975	29 783	33 220	27 225	25 464	7	7	6	7	6
Nitra	Hotels	222 685	216 718	203 267	210 837	273 593	29	32	34	38	43
	Boarding Houses	47 865	79 354	135 439	155 382	170 658	32	38	51	78	86
	Camping	128 608	80 675	87 599	68 003	53 694	9	7	6	6	6
Žilina	Hotels	866 780	960 586	1 033 427	1 011 316	1 050 747	86	86	85	107	115
	Boarding Houses	277 352	291 270	337 656	388 378	406 067	107	113	121	200	201
	Camping	110 047	94 665	101 414	101 974	85 011	15	14	14	15	15
Banská Bystrica	Hotels	841 546	753 733	750 423	729 088	788 086	71	68	65	69	70
	Boarding Houses	122 076	114 409	130 572	159 360	185 980	58	51	61	81	89
	Camping	32 903	32 599	30 316	31 597	31 161	6	6	6	7	6
Prešov	Hotels	1 496 683	1 400 946	1 418 406	1 435 826	1 443 896	87	91	96	105	103
	Boarding Houses	171 079	182 669	205 115	248 504	263 078	82	82	82	114	132
	Camping	50 926	42 154	22 190	35 841	29 003	9	9	8	10	9
Košice	Hotels	248 950	291 499	290 899	295 573	281 892	45	49	47	51	54
	Boarding Houses	49 313	56 620	54 754	67 077	97 412	35	38	37	60	62
	Camping	74 165	57 058	57 351	57 074	52 233	16	17	17	13	14

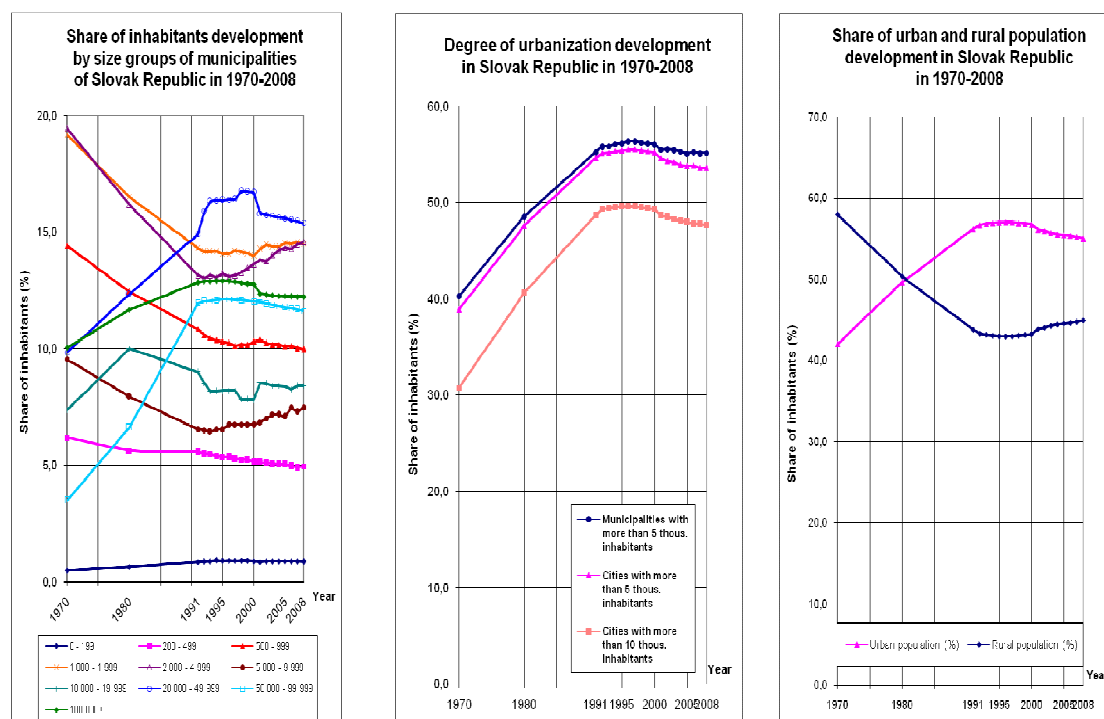
### ***Significant evolutions in the settlement system***

- **Growth or decline of towns and cities by size categories and by location**

Out of the total sum of 2 891 municipalities (not including 17 city districts in the capitol of Bratislava and 22 more in Košice), there are presently 138 municipalities with the status of a city in the Slovak Republic. In 2008, the Slovak cities were home to 2 978 401 inhabitants, while in 1970 this was 1 904 967 inhabitants. The rural areas, i.e. all remaining municipalities, which do not possess the status of cities, are currently home to 2 433 853 inhabitants, whereas in 1970 this figure totalled to 2 632 323 inhabitants. The share of urban inhabitants, considering the past long-run development, has been growing from 42.0 % in 1970, to 49.6 % in 1980 and finally to 56.2 % in 1991. During 1992-2000, the share of urban inhabitants had been stagnating between 56.7 % and 57.0 %, recording an all time high of 57.0 % in 1997.

Since then, there is a visible continual decline in the share of urban inhabitants until 2008 by 2 percentage points, i.e. reaching 55.0%. The share of rural inhabitants indicates an opposing tendency in its development between 1970 and 2008, as the rural inhabitants share dropped from 58.0 % in 1970 to 50.4 % in 1980 and even to 43.8 % by the year 1991. Again from 1992-2000, the share of rural inhabitants stagnated between 43.0 % and 43.3 %, recording an all time low in 1997. Most recently, there has been a slight increase apparent in the portion of rural inhabitants reaching 45.0 % in 2008. Municipalities, and possibly cities in the size category of 20 000 or higher, were home to 39.2 % of the total population of the Slovak Republic and 71.3% of urban inhabitants.

As for the ratio of inhabitants in municipalities of 5 000 or more (size category), and in cities of 10 000 or more (size category), it can be summarized that both of them manifest equal tendencies – strong growth from 1970 till 1991, followed by a 1992-2000 stagnation period, with all-time highs recorded in years 1996 and 1997, and a subsequent decline all the way until 2008. The share of inhabitants living in municipalities of 5000 or more, out of the total population of the Slovak Republic, amounted to 55.1 % in 2008; whereas the share of inhabitants living in cities (municipalities with the status of a city) of 5000 and more amounted to 53.6 %, and cities having over 10 000 or more were home to 47.6% inhabitants of the total population of the SR in 2008.

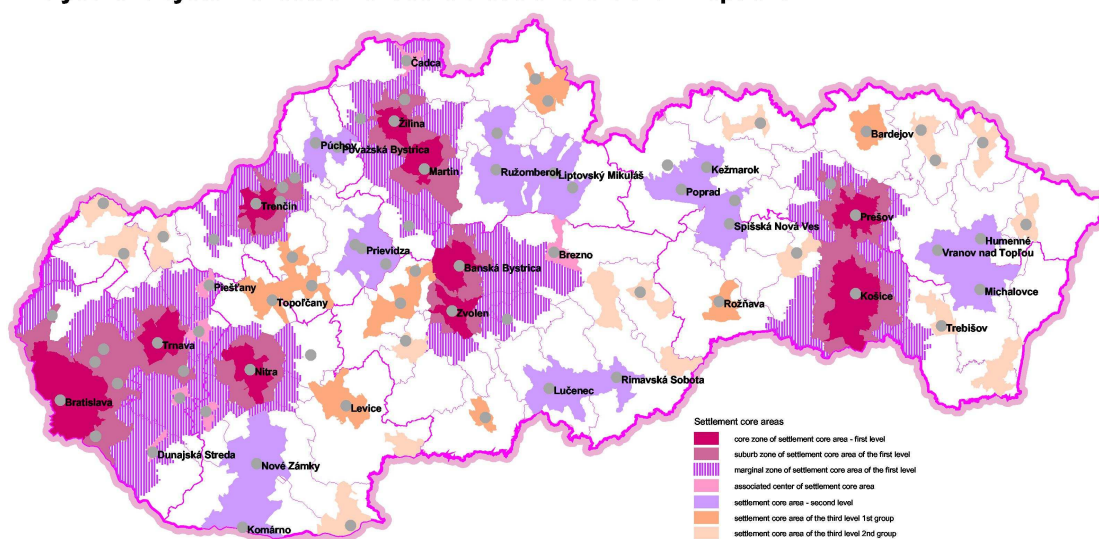


- **Areas with significant progress in suburbanisation**

Suburbanization is being perceived as a complex process, which lies in the urban spread of a city into green space, and from an evolutionary perspective, it represents the second phase of urbanization development in any given region of a city. Agglomerations in Slovakia have emerged mostly in fringe areas of the largest and most significant cities, which at the same time serve as county seats of the counties in which they sit. In national territorial planning document *Conception of Spatial Development of Slovakia 2001*, these are being referred to as settlement core areas

of the first level. In particular, there are territories surrounding the city of Bratislava with interurban relation to the city of Trnava, and Košice with relation to Prešov, which form the largest and most significant agglomerations in the Slovak Republic. Furthermore in this level, there are agglomerations with bipolar centres as evident in areas around the city of Banská Bystrica together with Zvolen centre, Žilina together with Martin centre and agglomerations with single core city as seen in areas around the cities of Nitra and Trenčín. Besides, the settlement core areas of the second level also encompass agglomerations of lesser extent, which essentially possess two or three core cities and were formed in territories around the cities of Liptovský Mikuláš – Ružomberok – Dolný Kubín, Lučenec – Rimavská Sobota, Michalovce – Vranov – Humenné, Nové Zámky – Komárno, Poprad – Spišská Nová Ves, Považská Bystrica – Púchov and also around the city of Prievidza with only a single core city.

### Polycentric system of settlement core areas of the Slovak Republic



Following a dynamic growth phase and concentration of population from rural into central urban areas, which was typical to all cities preceding 1990, stagnation persisted throughout the 90's. At this time, the largest cities exhibit a gradual diffusion within their agglomeration spaces from mostly the higher-income bracket of the population into the suburbs, accompanied by new constructions of family houses. Also, entrepreneurial activities are being diluted too, along with an intensification of recreational activities, strip constructions of commercial centres past the major transportation infrastructures, and the establishing of industrial parks, new warehouse areas, etc. Within the last couple of years, the settlement of the SR, and especially then the urban agglomerations, evidently exhibit the processes of suburbanization; whereas the urban agglomerations show evidence of so-called concentrated deconcentration, i.e. the inflow of dwellers and activities from other areas. Suburbanization within the vicinity of the largest cities is exhibited mostly by the growth of the most attractive municipalities within the suburbs, in relation to its accessibility to the city centre, and to the quality of its living environment which is mainly characterized by the surrounding natural environment. The ongoing suburbanization process does not fundamentally take the form of an extensive, spatially homogeneous, urbanised, new formation. Relocated urban functions are concentrated mostly along already existing motorway routes. Besides prestigious dwelling-places, facilities and services; suburbs are getting large warehouses, logistic centres, shopping centres, and service businesses, all of which are later becoming a

major problem when it comes to overall residential environmental quality improvement. Rural communities in suburbanization areas of cities, due to certain suburbanization processes, improve their technical and social infrastructure and generate new jobs directly in their communities. Suburbanization development on the fringes of cities, consequently brought a division of residential labour, and an increased requirement on transportation systems which were not prepared to face such a strain. Transport system development of public and individual transportation is considerably lagging behind the current needs and expected development trends. This causes excessive time demands on accessibility of urban centres, as well as other negative effects caused by transportation. The suburbanization trends exhibited themselves most vividly in relation to two of the largest cities—Bratislava and Košice, and their suburbs, to which migration losses of both cities are mostly directed. In their suburbs, a major increase in suburbanization process intensity has only been visible since after the year 2000. Using the example of these two cities, one can observe two types of suburbanization processes—suburbanization oriented from the fringes of the central urban area, which is essentially formed by parts of the city's original independent municipalities; and suburbanization oriented to immediate but also more remote suburbs. Mostly in the case of Bratislava city, the suburbanization trends manifest themselves also in the cities within its vicinity, which are separate urban formations, and thus intensive agglomerative relationships are being evolved.

Suburbanization processes are exhibited in various intensities around all county capitals of the Slovak Republic, as well as they can be observed around cities whose population exceeds 50 000.<sup>7</sup>

- **Depopulation /densification of inner-city areas**

Settlement development of the Slovak Republic was characterized by strong urbanization and concentration processes until 1990. These occurred at the expense of smaller and mostly rural municipalities. Concentration development ceased after 1990. Settlement development was at that point, virtually exhibited by the growth stagnation in larger cities and in the moderate growth of rural municipalities, particularly those in the suburbs of those cities. Concentration of the population into their respective settlement types was also strongly influenced by population development which changed after 1990 from progressive, to stagnating and even towards degression.

Today, the portion of the rural population<sup>8</sup> of the SR amounts to 39.9 %. In 2003, rural municipalities comprised 87.9 % of the overall settlements in the Slovak Republic. More than two thirds (66.6 %) of the settlements were comprised of municipalities of 1000 inhabitants or less, while in 2004 this figure totalled 67.3 %. Contemporary development of the population divisions based on the size categories of the municipalities, shows an ongoing continual decline in the portion of the population in the smallest rural settlements of 1 000 inhabitants or less (as of 1950, one third of the total population lived in these municipalities, while as of 2004 it was only 16.1% and today the figure has shrunk to only 15.8%). Also, it further shows a mild population increase in the size category from 1 000 to 1 999 inhabitants (from 14.4 % to 14.5 % as of 2008), as well as in larger rural settlements which have between 2 000 and 4 999 inhabitants (as of 2004, 14.2% of the total SR population lived in municipalities of this size category, in 2008 it was 14.6%) and in smaller

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<sup>7</sup> Settlement of the Slovak Republic is specific by the fact that it is comprised by app. 2 900 municipalities; while there are only 11 cities with number of inhabitants above 50 000 and 84% of the municipalities has less than 2 000 inhabitants.

<sup>8</sup> On local level NUTS-V a municipality is considered as rural municipality with a settlement density lower than 150 inhabitants per km<sup>2</sup>

urban settlements ranging from 5 000 and 19 999 inhabitants (as of 2004, 15.6% of the population lived in municipalities of this size category, in 2008 it was 15.9%). A decline in a portion of the population has been exhibited in larger cities of 20 000 to 49 999 inhabitants (the corresponding portion of the population declined from 15.6% in 2004 to 15.4 in 2008), while weaker growth dynamics later appeared also in large cities and metropolitan areas. In the size category of 50 000 to 99 999 inhabitants, to which nine Slovak cities belong, this proportion of the population dropped from 11.8% in 2004 to 11.6 % in 2008; and in the size category of settlements over 100 000 inhabitants, in which there are only two cities in the SR – capital city Bratislava and Košice, this portion of the population dropped from 12.3 % in 2004 to 12.2 %. Thus, recently there has been an evident loss of population in the smallest rural settlements and large urban settlements (an effect of suburbanization) whereas the portion of the population in larger rural settlements and smaller cities grows. Generally, a conclusion can be drawn that whereas the growth evidently stagnates in the larger cities, there is mild increase in population (densification) evident in their hinterlands—particularly then in their agglomeration spaces.

### ***Significant evolutions of the rural areas:***

- **Rural areas characterised by economic revival versus rural areas characterised by decline and desertification**

The definition of rural areas is set within EC – AD ARD and Eurostat, based on which local units (e.g. municipalities) are identified as rural if their population density is below 150 inhabitants per square kilometre. 86% of the total area of the Slovak Republic is rural in nature. Based on SO SR data on the level of self-governing regions (NUTS), the Slovak Republic has two distinctive rural regions with more than 50% of the total SR population living in rural municipalities – Banská Bystrica county (52.2%) and Nitra county (51.3%). Five counties belong to a group of the remaining rural regions, in which 15-50% of their population lives in rural municipalities –Trnava county (45.6%), Prešov county (42.9%), Žilina county (40.1%), Košice county (39.3%) a Trenčín county (36.1%). Bratislava county is mostly an urban region with less than 15% of the total population living in rural municipalities (13.4%).



## Development of the agricultural production in mil. EUR, source: Eurostat

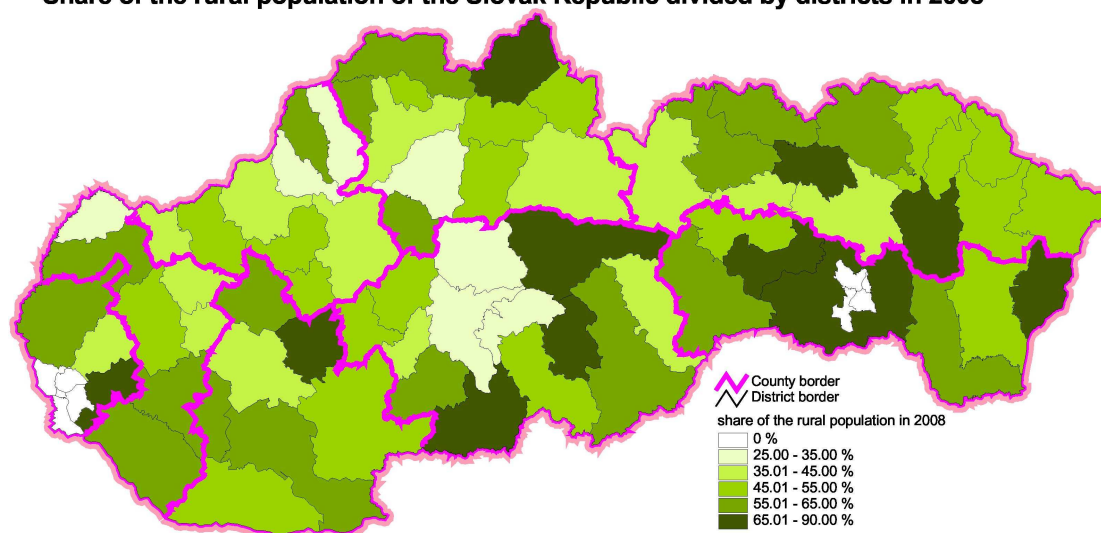
Region	Production sector	2005	2006	2007	2008
SK01- Bratislava	agricultural goods output	74.08	78.69	87.62	116.32
	agricultural services output	9.17	9.72	3.94	8.65
	animal output	31.75	29.92	33.19	51.63
	other non-separable secondary activities (goods and services)	7.2	9.2	3.67	13.56
	secondary activities (inseparable)	7.59	9.77	4.38	14.2
SK02-Western Slovakia	agricultural goods output	914.72	944.65	1109.79	1263.74
	agricultural services output	42.44	41.9	49.98	69.48
	animal output	422.88	441.49	527.43	555.76
	other non-separable secondary activities (goods and services)	47.98	71.04	46.57	49.04
	secondary activities (inseparable)	56.37	76.31	55.6	55.88
SK03-Central Slovakia	agricultural goods output	266.09	281.1	317.36	377.61
	agricultural services output	9.32	8.3	14.36	13.88
	animal output	168.62	169.54	182.15	239.1
	other non-separable secondary activities (goods and services)	17.5	21.2	13.38	19.35
	secondary activities (inseparable)	19.92	22.85	15.97	21.22
SK04-Eastern Slovakia	agricultural goods output	263.32	269.35	326.01	388.93
	agricultural services output	8.73	9.61	14.54	9.97
	animal output	142.27	139.9	146.71	191.61
	other non-separable secondary activities (goods and services)	18.37	15.61	13.55	13.83
	secondary activities (inseparable)	21.32	18.16	16.18	15.86

Positive effects of the economic growth of the SR have been in recent years mostly apparent in urban centres at the expense of smaller settlements and rural areas. Even though the share by which agriculture and forestry contribute to the economic performance has been strongly reduced, it remains the key production area for rural regions. Substantial structural changes in the agricultural and forestry sector in the rural areas, characterized by a gradual decline in their performance, were not accompanied by a creation of new sources of economic growth based on diversification, innovations and public administration expenditures. This has resulted in making the rural area's inhabitants to be among the most affected by the fallout of the economic crisis, as well as to the lingering economic transformation problems.

Based on Eurostat data, which characterizes the structure of agricultural production on the NUTS2 level, it can be observed that the region of Bratislava county is the most profitable from the economic growth and, at the same time, is the least affected by the economic crisis. From 2003-2008 there has been a gradual annual growth of traditional agricultural production recorded (livestock production, vegetable production, agricultural services) and the production of secondary agricultural sectors has also been growing too. Secondary agricultural sectors are composed of supplementary services (mostly food processing) and services of other affiliated activities (further unspecified). This part of production reflects the ability of the agricultural sector to diversify its traditional activities into activities with a higher-added value and more of a demand on innovation.

On the other hand, the region of Eastern Slovakia is the weakest region, least able to effectively utilize both the present economic growth and its own potential to increase the performance and effectiveness of their agricultural production. Also, the region of Eastern Slovakia was the only one that recorded a decline in the production of secondary sectors of agriculture—despite the continual growth of traditional agricultural production in the period 2003-2008, which was achieved by all regions of the SR.

#### Share of the rural population of the Slovak Republic divided by districts in 2008



- **Factors behind the economic diversification of rural areas (metropolitan influence; production of renewable energy, residential and tourist economy, stronger demand for agricultural products)**

There are significant regional disparities among the rural areas of the SR in regards to economic performance, structure and the effectiveness of their production, as well as the migration of the population related to the attractiveness of the region. Preconditions for boosting the economic growth of rural areas and factors of their different development could be characterized as such (similarly as it is in urban areas):

- Human resources and employment
- Infrastructure
- Agriculture

Smaller municipalities are especially unable to secure such conditions that would enable them the required living standard of their inhabitants and the production structure of employment requirements. Young people are continually migrating from rural areas as a consequence of the opened European labour market. While at the same time, due to the shape of the population curve, there has been a decline in natality and a growth in the share of the elder population. Many municipalities are depopulating, shown evidently by the average age of households and the level and quality of the housing itself.

A distinctive barrier bars the further development of rural areas due to the inability of a timely completion of transport communications. Rural areas offer attractive

destinations for tourism as well as attractive places to live. This considerable potential is being utilized most in rural areas located in peripheral parts of rural settlements and in the vicinity of major transport corridors.

The sustainable long-term development of rural areas is closely related to the diversification of traditional and prevailing agricultural production which aims to increase the share of higher value products and services, and also by the introduction of what is known as, “multifunctional agriculture.” Multifunctional agriculture’s focus is thus to be seen as a determining factor of sustainable rural development. Peripheral parts of the settlement centres are among the rural areas with the most developed multifunctional agriculture. The remaining rural areas lack endogenous growth resources, as subsidies and supporting programmes are still the main sources of change. Due to this fact, it is paramount to rural regions to successfully procure the organizational skills necessary in order to secure the proper management of their development projects.

Among the key factors affecting rural area’s potentiality and the level of their utilization are:

- attractiveness of rural areas
- accessible innovative technologies
- available quality human resources

Municipalities must be able to provide public services in order to secure the viability of rural areas. Today, half of the budget of smaller municipalities is taken by administration expenditures (Municipal Office maintenance, salaries of mayor and local representatives, etc.). Municipalities have limited capital expenditures, preventing them from investing into their own development while at the same time finance other day-to-day self-governing functions.

### ***Progress of transnational and cross-border integration:***

- **Areas characterised by a significant increase of transnational and/or cross-border socio-economic interactions (cross-border agglomerations; transnational corridors)**

Admission of the Slovak Republic to the European Union and more importantly, the joining of the Schengen space, has affected the development of cross-border interactions. The interactions between neighbouring countries and the Slovak Republic, originally based mainly on the transportation corridors, are in some areas changing into imminent cross-border interactions on a day-to-day basis. Along the border with Poland and Hungary, new barrier-free interconnections are being created. Along those borders, which were formed by natural river barriers, new bridge interconnections are being designed and built (with Austria and Hungary).

Free cross-border movement of people allows cross-border employment in those areas which are within the vicinity of larger cities or new industrial zones located close by and over the border of neighbouring states. It relates to new work opportunities offered to Slovak citizens in Hungary and traditionally in the cross-border regions of the Czech Republic. Though within the last year, the initial development of these socio-economic interactions have been made considerably worse due in large part to the fallout of the economic recession.

Development of cross-border interactions can be observed mostly in areas near which there is an economically significant or larger city. More intensive development of socio-economic interactions in the area of the Slovak Republic can be found in the north-western parts of its territory which is a result of the construction of new

industrial activities in Žilina and Ostrava-Tešín agglomerations in the Czech Republic.

From the viewpoint of settlement and agglomerative tendencies, cross-border activities are more evident near the city of Bratislava. Aside from the interactions which have been developing since the 90s in the direction towards the agglomeration with Vienna, there are strong agglomerative impacts on Bratislava which recently have manifested, affecting its most immediate suburbs in the neighbouring states of Austria and Hungary. Such effects, besides economic interactions (i.e. work-related or business-related travels), start being evident even in the housing development of Slovakia-based investors in neighbouring Hungarian or Austrian municipalities. A natural cross-border agglomeration thus starts emerging, as brought on by the size of the city of Bratislava.

Natural development of mutual interactions emerges among the cities lying in close vicinity to each other on both sides of the border. For example Komárno – Komárom, Štúrovo – Ostrihom, Veľký Krtíš – Balašské Ďarmoty at Slovak-Hungarian border; Kráľovský Chlmec/Čierne nad Tisou – Čop at Slovak-Ukrainian border; Vysoké Tatry – Zakopane, Nowy Targ at Slovak-Polish border and Skalica/Holíč – Hodonín at Slovak-Czech border.

## **2. Territorial impacts of emerging and growing challenges and related driving forces**

- **Examples of significant territorial impacts of climate change (drought, forest fires, floods) by type of regions/areas**

### **The Slovak Republic in general**

In the course of the last 100 years, climate change in Slovakia is evident by an increase in the average annual air temperature by 1.1°C. This has also been accompanied by a decrease in the annual amount of atmospheric precipitation by 5.6% on average. Regional differences have also been recorded between the northern and southern parts of the territory. In the south, this decrease was 10 %, while in the north and north-east, a growth of 3 % was occasionally recorded during the whole century. Other climate change phenomena include a considerable decrease in the relative air humidity (up to 5 %). Overall snowpack has also decreased throughout the entire territory of Slovakia and there is a gradual drying trend occurring particularly due to the growing reality of evapotranspiration and the reduction of soil humidity, especially in the southern parts of Slovakia.

Further anticipated effects of climate change:

- Increasing number of natural disasters compared with previous decades, presumably in consequence of climate change (forest fires, hurricanes, dry periods, heat waves, etc.).
- Anticipated shifts in geographical distribution of wood species and biodiversity loss to an unprecedented extent.

### **Vulnerability areas of water resources**

From the comparison of hydrologic balance, it is evident just how sensitively the hydrologic balance and water resources react to climate development. Based on evaluation of domestic runoff distribution changes, it can be assumed that a change

in long-run average monthly runoffs is to be expected in all counties of the Slovak Republic in the following decades. All projected scenarios and time horizons indicate that there will be an increase in winter and spring runoffs and a decline in summer and autumn runoffs, particularly in the vegetative season. Areas of southern and western Slovakia will be among those most heavily impacted, where long-run average monthly runoff decline is expected to reach its peak from May until July, in some catchment basis up to 70% in the 2075 horizon. Northern areas of Slovakia will be impacted to a lesser extent.

Qualitative sensitivity and vulnerability of water resources, with respect to climate development within the territory of the Slovak Republic, can be expressed in three categories on the following generalized map.



#### Sensitivity and vulnerability of water resources in Slovakia (low, medium, high)

With respect to groundwater vulnerability in the mountains consisting of an internal crystal structure, Považský Inovec and the High and Low Tatra regions will be among the most likely impacted areas. Relatively more favourable conditions may be expected in the region of Malé Karpaty, Strážovské Vrchy and in both Veľká and Malá Fatra.

1996 – 2000 was a period marked with the vastest of floods which affected relatively small territories. This increased aquosity was accompanied by low aquosity in areas which were not affected by extreme total rainfall. There has been a decreasing tendency in long-term flow rates of Slovak rivers since 1990, except for the river Danube.

#### **Forrest fires**

Forest fires continue to remain as one of the risk factors affecting both the substance and condition of forest ecosystems within the Slovak Republic. Aside from the regular factors which influence the risk of forest fire incidences—such as adverse weather conditions and human activity—2005 was an even higher risk in the areas struck by the natural calamity of 19.11.2004 (High Tatras area), in which highly

flammable biological material resided. These locations will continue to pose a high risk for years to come<sup>9</sup>.

### **Biodiversity loss and changes in ecosystems**

With respect to ecosystems in the climatic conditions of the Slovak Republic, change in the hydrological regime remains a serious fact. Drying of the environment will be apparent mostly in later months, as the atmospheric precipitation in the second half of the vegetative season will be lower than in the same period in the past. In most of the areas at elevations above 400 m, a moisture shortage is caused in the soil profile content with low groundwater levels which is heavily influenced by the level of atmospheric precipitation.

An assessment has been carried out within the total forested area of Slovakia for the following woody plants – spruce, fir, and beech trees. From the results, it is very apparent that mostly in case of spruce and fir trees, there is a current incongruence between bioclimatic requirements and real occurrence. It has been most vehemently reflected in values of climate change conditions; as 71% of spruce areas, 82% of fir tree areas and 32% of beech areas are currently located in regions with an unsatisfactory degree of air temperature index. Water balance index signals the most apparent changes for beech in its lower boundary.

### **Climate change and urban environment**

Among the most important factors affecting urban climate are:

- size and structure of the city,
- thermal and hydrological properties of surfaces,
- manner and nature of construction,
- ratio of fixed and green areas,
- extent of human-related activities (share of transport, industry in city, etc.).

The condition of the living environment within cities currently differs from its surrounding environment in individual characteristics (temperature, humidity, atmospheric precipitations). The differences, however, will be even more intensified as result of the expected manifestations of climate change. Among the most affected in the Slovak Republic will be the largest cities (Bratislava, Košice, Prešov), cities with excessively damaged environment (e.g. Ružomberok) and cities of Southern Slovakia in general (please see the part on hydrologic regime change).

The most apparent problems related to climate change in urban areas will include:

- increased temperature – especially summer heats (and thus related health problems of particularly vulnerable population groups.
- decrease of relative air humidity
- decreased duration of snowpack
- long arid periods
- rainfall of storm nature
- windstorms, typhoons and hurricanes

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<sup>9</sup> National Strategic Plan of Rural Development for the Programming Period 2007-2013 (SR)

- **Examples of significant territorial impacts of the globalisation process and related international divisions of labour (concentration of direct foreign investments; economic-technological specialisation of areas; significant clusters; relocation of activities)**

From the viewpoint of the globalization process, the main comparative advantage of the Slovak Republic lies in its relatively low labour costs, established infrastructure, political stability and strong GDP growth. Stated advantages are the main source of attractiveness for the Slovak Republic in the eyes of foreign investors and the importance of the SR, with respect to the inflow of FDI, has grown steadily since 1998. Foreign direct investments are the engine of the Slovak economy and they have a profound effect on the transformation processes in the economy as well as on its regional innovative performance. Foreign direct investments have helped the Slovak Republic to become the largest per capita car producer and LCD producer in the world. Regarding FDI attractiveness, there are huge disparities among regions in the SR. It is mostly determined by traffic infrastructure, information and technical infrastructure and instantaneous availability of qualified labour. Among the highly attractive regions are Bratislava (70% of the foreign direct investments) as well as the whole region of Western Slovakia and the region of central Považie and Košice. Globalization contributes to a segmentation of the Slovak Republic into rich and poor regions also because of the influx of large car manufacturers (VW, Peugeot, Kia) and their subcontractors into the above-stated regions, development of industrial parks in the SR are, for example, due to the branch office deployment of IT corporations.

Status of foreign direct investments according to counties in mil. EUR, source: NBS

County	Status of FDIs in mil. EUR
Bratislava county	17 564
Trnava county	1 798
Trenčín county	1 203
Nitra county	803
Žilina county	1 588
Banská Bystrica county	505
Prešov county	221
Košice county	2 279

Based on stated facts, industrial clusters have been either recently established, or their establishment is being planned. Among the most significant (from both a regional and international perspective) belong:

- Automotive cluster – Western Slovakia, Trnava self-governing county.
- Electrical engineering cluster – Western Slovakia, Trnava self-governing county.
- Tourist traffic cluster Liptov – Žilina self-governing county. Tourism.
- IT cluster Z@ICT – Žilina, Žilina self-governing county.

- Planned machine engineering and wood processing cluster - Banská Bystrica self-governing county.
- Planned IT cluster Košice - Košice self-governing county.

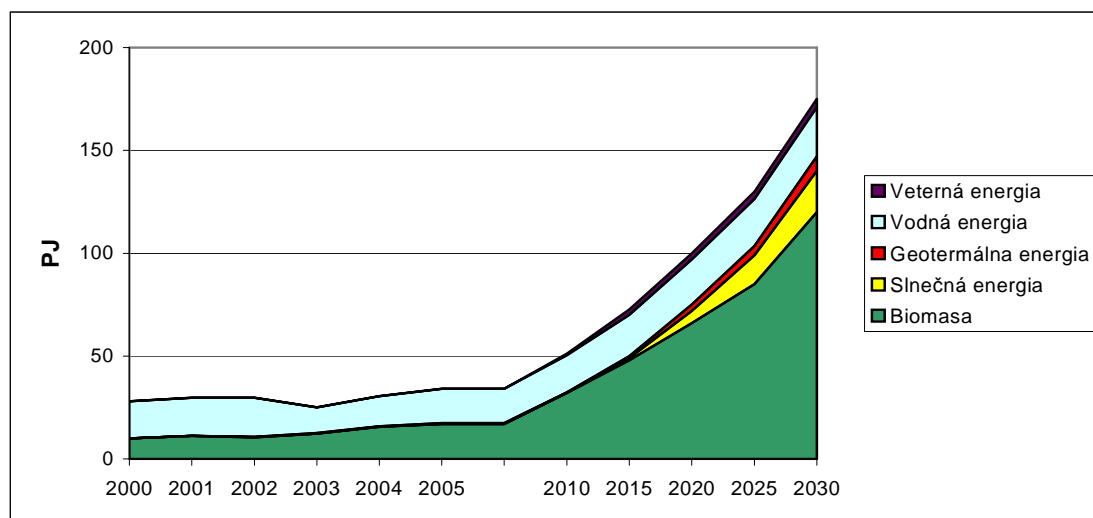
Above-stated clusters are gradually growing and they cover an ever expanding part of the supplier-customer chain. Their members are not only private corporations, but also public institutions which provide these clusters with various forms of support through which these subjects become key players for the development of each of the regions.

- **Examples of significant, territorially relevant evolution related to the changing energy paradigm (areas benefiting from the development of renewable energy; impacts on mobility of unstable energy prices; location of major investments related to the energy sector, etc)**

The National Council of the Slovak Republic Act No. 309/2009 Coll. on Support of Renewable Energy Sources and Highly Efficient Combined Production defines renewable energy resources as follows:

A renewable energy resource is not derived from fossil fuels and its potential is regenerated from natural processes or is replenished by human activities, and among renewable energy resources are:

1. hydro energy,
2. solar energy,
3. wind energy,
4. geothermal energy,
5. biomass, including all products derived from its processing,
6. biogas, waste dump gases, sewerage water treatment plant gases,
7. biomethane.



The Strategy for Higher Utilization of the Renewable Energy Sources in the Slovak Republic offers an overview of the potential renewable energy resources which can be utilized. Nation-wide, water energy is the most widely utilized renewable energy resource for electricity generation totalling over 98% of the electricity generated via a renewable energy resource. Hydro energetic potential is utilized by 57%.



According to obtainable data, hydroenergetic potential is as follows:

- Total theoretical hydroenergetic potential of the SR is 13 700 GWh/year, which is based on water passage throughput of individual rivers;
- Theoretically exploitable hydroenergetic potential of the SR is 7 500 GWh/year, where it is either not possible or planned to place technical equipment;•  
Technically exploitable hydroenergetic potential of the SR is 6 800 GWh/year, which is less than the theoretical one mostly because it does not assume full utilization of water throughput

The following table lists areas with technically exploitable hydroenergetic potential encompassing electricity generation in both small and large water power plants:

Hydrological catchemnt basin	Theoretical hydroenergetic potential		Technically exploitable hydroenergetic potential
	Total	Exploitable	
	(GWh)		(GWh)
Morava	112.6	57.7	29
Danube	3394.1	2402	2511
Váh a Malý Dunaj	5953.1	3109.9	3111
Nitra	319.5	141.3	45
Hron	1405.6	681.9	427
Ipeľ	156.8	38	34
Slaná	314.3	159.9	96
Bodva	64.6	29.7	2,7
Hornád	806.5	387.,2	162.9
Bodrog	691.6	264.4	137.6
Poprad and Dunajec	460.5	228.2	43.8
<b>SR TOTAL</b>	<b>13679.2</b>	<b>7500.2</b>	<b>6800</b>

Solar energy holds a high overall potential. With regard to financial and technological potentialities, there is a presumption that solar energy will be utilized mainly for heat generation and the heating of supply water. With no need for considerable structural changes, current photovoltaic (FV) technology is able to integrate photovoltaic generators into energy distribution grids, providing a several percent share of the total amount of annual energy consumption. As of today, utilization of technical FV potential, when compared to other technologies, is more financially demanding.

Currently, such legislative and financial tools have been developed in Slovakia that shall generally allow for higher overall utilization of this renewable energy source. With respect to heat generation and the heating of supply water for individual households (family house owners and collectives of apartment dwelling house owners), Ministry of Economy of the Slovak Republic has introduced its subvention program for solar collectors. It is further supported by Program of the higher utilization of biomass and solar energy in households and as of 1<sup>st</sup> October 2009, MESR already approved 284 applications, the value of which totaled to €288,871. This subvention initiative is intended for the whole territory of the Slovak Republic and there are no restrictions based on geographical conditions. Still, the volume of emitted solar radiation hitting Earth's surface remains a critical factor in effective utilization of applied technology.

At the same time, greater utilization of photovoltaic energy for electricity generation in Slovakia is expected as well, mostly due to the favourable legislative and economic conditions which have been adopted this year for application of above mentioned technology. Regulatory Office for Network Industries has set the purchasing price for 1 kWh of energy generated from sunlight and this price is fixed for the period of 15 years, which presents an interesting stimulus especially for those investors willing to invest into solar plants. Economic return (payoff) is expected in approximately 11 years in relation to geographical conditions. From the perspective of favorable geographical conditions, the southern regions of Slovakia are exposed to more solar radiation than the northern parts of the country. The first solar plant with installed power capacity of 3 MW will be put into service in December 2009 and it will be located in Tesárske Mlyňany in the northern part of Danube lowlands geomorphological complex.

In spite of created favorable conditions, mass utilization is in this case not expected for the following reasons—higher cost of the technology, the government must subsidize the price and it is the most costly way to generate electricity so far. This source of renewable energy is labeled as nonpermanent and heavily dependent on climatic circumstances.

Geothermal energy holds the second highest overall potential. Properties of geothermal waters in the Slovak Republic predetermine the exploitation of this energy mostly for heating and medical treatments. Technical potential is also considerably lower due to technological problems relating to the chemical composition of geothermal waters.

Generally, the exploitability of geothermal energy potential for the purposes of electricity generation in Slovakia is rather low because the temperature is ranging from 45°C to 130 °C, which is insufficient for geothermal power plant equipped with a steam turbine. At the same time, geothermal energy represents more of an alternative energy source and technically it is not a true “renewable” source. However, it is considered a valuable source and in Slovakia this energy resource is utilized mostly in agriculture (greenhouse heating), for recreational purposes or medical treatments (growing number of thermal swimming baths in Slovakia) and for house heating (e.g. there are 1240 dwellings, hospital and a retirement home heated in Galanta).

Three out of eight counties in Slovakia jointly hold 80.6% of exploitable power output of geothermal water resources. The greatest exploitable power output is to be found on the territory of Trnava county, followed by Nitra county (2<sup>nd</sup> highest) and Žilina county (3<sup>rd</sup> highest).

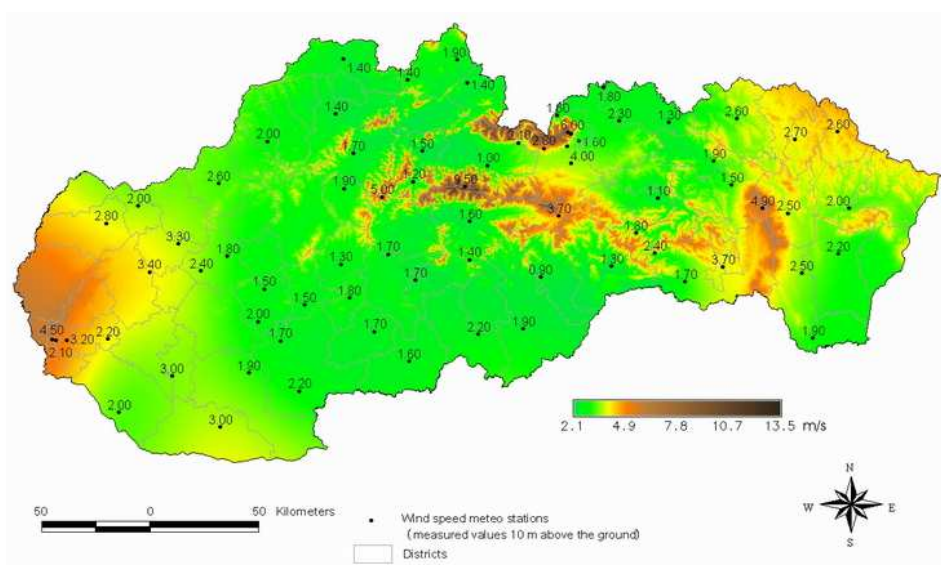
The highest technological potential is held by biomass, as it has great prospects mostly for heat generation in central heating systems, though less so in households. This is in the form of pellets, briquettes, wooden chips and straw. A relatively fast solution for increased biomass exploitation is to combust it jointly with fossil fuels in thermal power plants, as well as in the combined generation of electricity and the production of heat. In case of larger facilities, optimization of logistical cost is an important factor.

Biogas produced from agricultural biomass, biologically decomposable municipal waste and sediments from sewage water treatment plants (ČOV) can be used for the generation of electricity and production of heat. Development of biofuel utilization is dependent on legislative measures and the resolution of technological problems.

Exploitable (even technical) potential of wind energy was determined to 600 GWh in 2002. Potential was calculated based on assumption that wind turbines of the

following output will be used: 500 – 1000 kW. However, judging on experiences gained so far and technological development in turbine construction, which allowed for utilization of turbines with output as high as 2 800 kW, it can be assumed that the real exploitable potential is more than twice as high. Governmental decree was referring to turbines with output from 0.5 to 1 MW of installed power capacity, yet the upcoming projects (9 projects of Green energy Slovakia corporation) are focused on improved wind turbines with output of 2 MW. This in practice means higher exploitable potential. So far, there had been three wind parks erected in Slovakia—Cerová, the locality of Vápenková Skala, Myjava, the locality of Ostrý vrch and Skalité, the locality of Poľana (which however ceased to exist in 2008 when obsolete technology was dismantled).

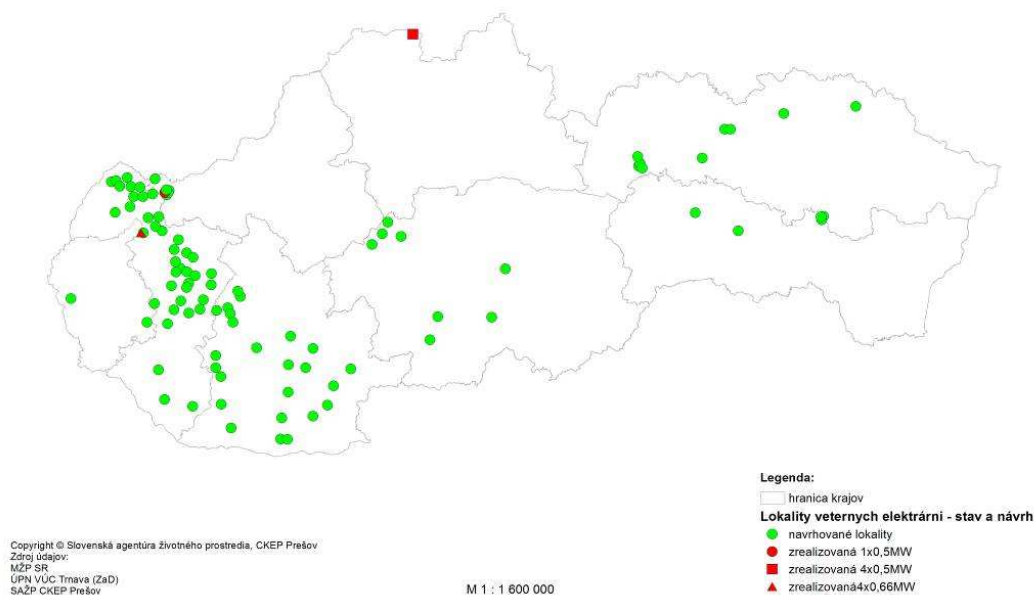
Major decisive factor in determination of suitable conditions for wind turbine installment is the average wind speed, which shall reach at least 6 mps in the elevation of 60 meters. Should the wind speed be considered as the only restricting factor, the most suitable sites would be found in western Slovakia, parts of High and Low Tatras mountain-chain and territory of Slanské vrchy. In assessment of this energy source, one has to bear in mind the other limitations as well (e.g.: interference with protected areas and others).



In 2008, the Slovak Environmental Agency prepared a map of proposed and monitored locations for wind power plants, from which it is clear that the greatest development potential for this kind of renewable energy source can be found concentrated in western Slovakia.

Despite already existing studies, Ministry of Economy of the Slovak Republic see absence of quality study, which would completely assess the suitability of locations, as the main barrier barring the further development of this renewable energy source. Investors in most cases prepare only local studies after they already selected the location for placement of wind turbines. Ministry of Economy of the SR considers wind energy as resource with lowest exploitability (only 1.6 %) according to Operational Programme Competitiveness and Economic Growth.

Navrhované a sledované lokality veterných elektrární



Proposed and monitored locations for wind power plants

- Legend:
- County borders
  - Wind power plant locations – situation and proposal:
    - Proposed locations
    - Implemented 1x0.5MW
    - Implemented 4x0.5MW
    - Implemented 1x0.66MW

- **Examples of areas affected by significant foreign immigration and/or social polarisation necessitating specific measures**

By the end of 1989, the Slovak Republic had been a country with prevailing emigration. Within the last years, however, one can observe a changing trend in migration. Even though the influx of migrants is not as substantial as it is in some other countries of Western Europe, Slovakia has a long-standing trend of immigration prevailing over emigration (according to the available official sources).

There are mostly citizens from Middle and Eastern Europe moving to the Slovak Republic, even though the portion of Asian migrants is steadily growing. Although the initial intentions of the majority of migrants (mostly illegal ones) were not to stay in Slovakia, a small portion of asylum seekers aim to stay in Slovakia, hence, integrating into the Slovak society.

In the Slovak Republic, similarly as in the majority of EU member states, the number of asylum seekers is declining. This decrease might be caused by a change in migration flows and the entry of Slovakia into the Schengen space in late 2007, eliminating all border controls and by that demanded improvement of Ukrainian border protection. The highest number of asylum seekers was recorded in 2005 – 11 395, as opposed to 2008 when 909 requests were received.

Since 1993, the Slovak Republic has granted the migrants altogether 552 asylums (by the year 10/2009). Whereas the most successful were, according to the Ministry of Interior of the SR, the applicants from Afghanistan, Iraq, Bosnia and Herzegovina, Armenia, former Yugoslavia and Angola. Ever since the Slovak Republic was

established, citizenship rights have been granted to 203 refugees (up until 2008). However, despite growing numbers of granted asylums, UNHCR would appreciate Slovakia to adopt a more welcoming asylum policy.

In the Slovak camps for awaiting asylum seekers, economic migrants outweigh the political migrants, which is the reason why the number of granted asylums is very low. There is an inflow of refugees, for whom our country is only a changing station as they move on further to the West at their earliest opportunity.

Other phenomenon which shall be pointed out is work emigration and in particular, the outflow of educated people from Slovakia. Insufficient work opportunities (unemployment of graduates is typical for Slovakia) are driving young people out, often with an obtained university diploma, to seek low-wage work abroad. Similarly, the outflow of highly qualified professionals (IT specialists, physicians) brings up a need to seek such instruments and policies that would help lessen the negative impacts on the Slovak economy.

- **Areas/regions likely to be particularly affected by the structural impacts of the economic/financial crisis (metropolitan areas, areas with significant manufacturing activities, rural areas, tourist areas etc)**

From the beginning of the monitored period (October 2008), the evolving situation can be characterized mainly by the development of the labour market. According to the National Office of Labour, Social Matters and Family (ÚPSVaR SR), the number of jobs threatened by mass lay-offs is 40 430. Out of the total number of announced layoffs, 23 739 employees have already been laid off since the beginning of the observed period. With respect to the mass layoffs, as of 1<sup>st</sup> November 2009, 16 691 employees' jobs still remain threatened.

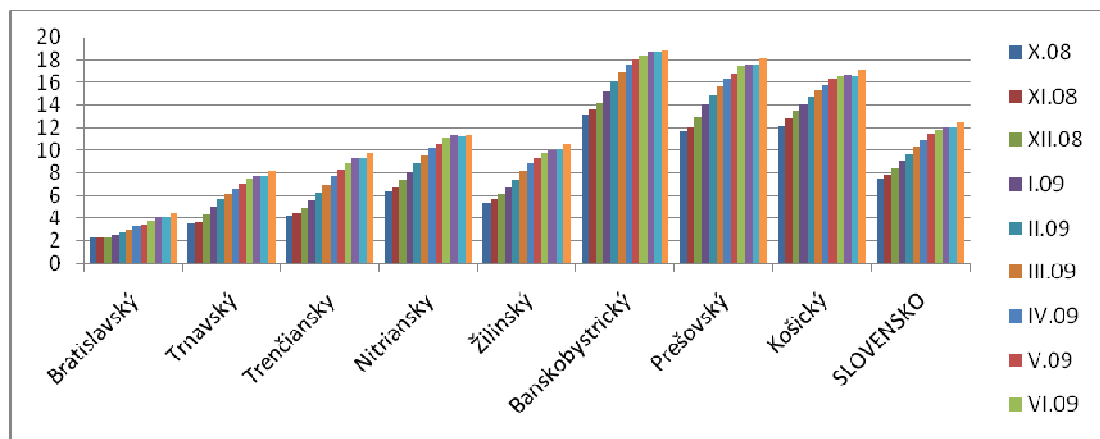
Based on the situation of the labour market which is being monitored by the Ministry of the Economy of the SR and ÚPSVaR SR, and regarding the situation of strategic investors (as of 7<sup>th</sup> November 2009) it can be assessed as follows<sup>10</sup>:

- Samsung Galanta – is currently employing a total of 2 490 workers, whereas out of the total planned number of 800 project-related job openings, the actual number of newly-created jobs by the company is 800 (fulfilment 100%). The company has modified its operations from double-shifts to extended single-shifts.
- KIA Motors Slovakia – is currently employing a total of 2 800 workers. It operates with standard double-shifts. No production shutdowns are planned.
- MOBIS Slovakia – It operates with standard double-shifts and no layoffs are planned, similarly as in KIA Motors Slovakia.
- SONY Slovakia – is currently employing 2 507 own workers and it operates with two double-shifts, each 7.5 hours in duration.
- Volkswagen Bratislava – no layoffs are planned. The company has two production lines open, the first of which operates with 8-hour double shifts, whereas the latter operates with an 8-hour single shift.
- PSA – has announced mass layoffs. The company plans to reduce its workforce by 190. In fact, 45 employees have already been laid off so far. The company operates in two standard 8-hour shifts.

<sup>10</sup> Source: <http://www.economy.gov.sk/tyzdenne-prehlady-nasledkov-krizy-za-rok-2009/128721s>

The regions of Banská Bystrica county, Prešov county and Košice county belong among the most heavily impacted as their unemployment rate growth recorded both the highest dynamics and highest absolute values. The following chart depicts a more comprehensive unemployment rate development overview.

Evolution of registered unemployment rate, source: ÚPSVAR SR



### 3. Evolution of territorially significant policies

- **Examples of intensification of comprehensive approaches with increased vertical and horizontal cooperation**

Slovak society has gone through numerous changes in its 20 years of transformation. One of the most apparently manifested changes, equally involving individuals and households, is the emerging of social polarization, where only recently there used to be a relatively homogenous society.

Changes in the socioeconomic system of the Slovak Republic were consequently logically mirrored in profound changes of social structure segmentation. Social system differentiation takes place, during which dissimilarities between individual social levels are highlighted. Values and norms are being formed reflecting our social reality and the whole process can thus be labelled as a formation of a new social structure. There is possibly the renewal and development of social categories and profession groups—such as entrepreneurs, large-scale businessmen, tradesmen, merchants, financiers and private farmers—which had been non-existent in the Slovak Republic for a period of four decades; as well as economic degradation of some social categories like the unemployed and the homeless. The effects of a market economy have brought dramatic growth of the uneven distribution of wealth. Poverty is a negative phenomenon, which is important due to its relation to the polarization of society.

While poverty in the previous period was tied to various phases of life and family cycles, categories bearing the heaviest effect on the wide-spread polarization of the society are rooted mostly in an unbalanced labour market. One can define groups which are the most threatened as being those exposed to the risks of poverty. These groups, which also tend to live in underdeveloped regions, are threatened by a form of double marginalization. Impact on the population of less-performing regions will be even higher, as it not only focuses on economic inequalities, but also via decreased

mobility, and on the limitation of access for opportunities to a unified labour market, information or education. Consequently, this might take the form of socially excluding certain parts of the Slovak population.

Politics of active inclusion might considerably strengthen, not only the advocacy of social incorporation of the most disadvantaged persons and their consequent integration into the labour market, but at the same time it may help to mitigate clannish inequalities.

As for the territorial social polarization in the Slovak Republic (horizontal polarization), clear signs of divergence and regional capacities to adapt to the pressures of economic and social transformations had been emerging already in the early 1990s. After 2000, both Western and South-Western Slovakia (with Bratislava dominating considerably) have assumed a prime position in the relatively successful mitigation of the negative fallout of the socio-economic restructuring and globalization. These are the regions that attract FDIs—regions with low unemployment rates, developing secondary and tertiary sectors and growing average wages. On the other hand, regions of Eastern and North-Eastern Slovakia (with exception areas in close vicinity to large regional centres), as well as the southern part of Central Slovakia, represent areas with deficient investments and an insufficiently diversified economy. A trend of growing inter-regional differences can be documented on the evolution of disparities in average gross wages. In 2001 the average gross wage in the poorest region of Prešov county, in Eastern Slovakia, amounted to 68% of the average gross wage recorded in Bratislava county. This figure even fell to 62% in 2007. The prevailing neo-liberal approach in the governance of the society has, on one hand allowed positive economic development of the country; however, on the other hand, a growing horizontal polarization of the society has brought up a need to mitigate negative regional impacts of such politics.

The most important approach that has emerged within the last decade of development of the Slovak Republic, with an aim to eliminate causes and mitigate effects of territorial horizontal polarization of Slovakia, are:

- various measures of the government and respective government departments favouring socially and economically weaker regions
- formation of institutional and legislative framework supporting regional development
- creation of degree of regional self-governance and gradual transfer of partial authority in areas of regional and strategic planning over to the regions
- Favouring of economically less-performing regions in the process of obtaining EU funded financial support
- Supporting mutual cooperation development of municipalities aimed at the creation of regional and micro-regional strategic partnerships with the objective to, *inter alia*, develop joint project proposals for obtaining EU financial support

- **Examples of measures and procedures leading to more sustainable forms of territorial development**

The spatial development is provided by the documents of territorial planning and regional policy on the national and regional level. These documents have a cross-sectional character. It means that individual sector plans and aims are illustrated and co-ordinated in these documents. They are processed at a national, regional and local level. Besides this, the spatial development is provided also by sector planning documents with spatial impact.

The relevant documents of territorial planning are:

- Conception of Spatial Development of Slovakia 2001 on national level and
- Territorial development of regions at the regional level

### **The Conception of Territorial Development of Slovakia 2001:**

The Conception of the Territorial Development of Slovakia 2001 (hereinafter referred to as KURS 2001) is, in accordance with the spatial planning act, a nationwide strategic spatial development material. The SR Government approved it through its resolution and its obligatory part was by a governmental order of the SR.

Slovak Spatial Development Perspective 2001 expresses the main goals of the Slovak Republic territorial development and their priorities in European and national contexts. At its conceptual level, it expresses recommendations for the arrangement and structure hierarchy of settlement and settlement nodes and economic agglomerations in international and national connections, such as the development suggestion of the main Slovak Republic urbanized axis. Simultaneously, it evaluates the requests of sector conceptions to spatial organization and functional utilization of the Slovak Republic territory.

### **Territorial development of regions**

The regional territorial plan shall be elaborated for a part of the landscape with several municipalities, in which it is necessary to design specific development plans or to carry out activities with significant impact to the spatial arrangement and functional use of the territory. The regional territorial plan shall take into account obligatory parts of the Territorial Development Conception of Slovakia and shall result from the guiding part of the Territorial Development Conception of Slovakia.

The regional territorial plan shall establish in particular (principles and regulations):

- a) principles and regulations of the settlement structure, spatial arrangement and functional use of the territory
- b) principles and regulations of public transport and technical facilities arrangement,
- c) principles and regulations of care for environment, landscape creation and protection of cultural monuments,
- d) principles and regulations of spatial requirements for the protection and use of natural resources,
- e) mutual links of regional territorial development to its municipalities and relations to neighbouring regions.

The regional territorial plans are processed for all self-governing districts.

### **The relevant documents of regional policy are:**

- National development plan at the national level, National Strategic Reference Framework (NSRF) and Rural Development Policy in the years 2007-2013
- programmes of economic and social development of self-government regions at the regional level

National Strategic Reference Framework (NSRF) <sup>11</sup> for 2007 – 2013 is the basic strategic document providing the baseline for the drawing of financial resources from

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<sup>11</sup> Elaborated based on <http://www.strukturalnefondy.sk/Default.aspx?CatId=72>



the European Union. It defines national priorities, which will be co-financed in this programme period from the Structural Funds and Cohesion Fund. The strategic target for the period of 2007 – 2013 represents not only the continuation of approaching the EU-15 level in terms of economic performance, but also implementation of the qualitative and structural changes needed for the growth of competitiveness of Slovakia and its regions as well as enhancing the quality of life of the citizens of the Slovak Republic. NSRF fully complies with the Conception of Spatial Development of Slovakia.

Presently, National regional development strategy of the Slovak Republic document is being prepared on nationwide level.

### **Programme of Economic Development and Social Development of a Self-Governing Region**

The programme of economic development and social development of a self-governing region is compliant with the objectives and priority needs laid down in the National Plan and a source material for preparing the respective regional operating programme.

The source material for preparing a programme of economic development and social development of a self-governing region are also the programmes of economic development and social development of municipalities in its territory

Documents of road system development are among the most important sectoral planning documents with spatial impact. According to the importance of individual road systems, the following authorities are responsible for their development – the state (highways, high speed communications and roads of the I. class), regions (roads of II. and III. class) and municipalities (local communications). Each responsible subject provides its own planning documents, which are co-ordinated with the aims of the spatial development of a given territorial unit.

From the previous programme period 2002-2006, one can mention programmes of interregional cooperation in the European Union, such as "INTERREG III"<sup>12</sup>. INTERREG III was an initiative focused on reaching a sustainable, harmonic and balanced development of European space as a means to economic growth and increased competitiveness of the European Union.

Numerous projects have been implemented in the Slovak Republic so far, i.e. Green Belt- Protection and valorisation of the longest biocorridor in Europe <http://www.greenbelteurope.eu/>, „Parks and Economy project“ - Sustainable development and spatial planning with an aim to preserve the natural values“ <http://www.parks-economy.eu/>, „PolyDev“ - spatial planning and common best practices in sustainable polycentric spatial planning <http://www.polydev.org/>, and many more.

In the new programme period within the European Territorial Cooperation 2007-2013, the following projects are among the most recently implemented in Slovakia, under the Central Europe Programme 2013 and „competitiveness“ priority: „Transnational Action for Public Private Partnership“, <http://www.act4ppp.eu/>, or „UrbSpace“ [www.urbspaces.eu](http://www.urbspaces.eu/), among others. Other projects, supporting measures leading to more sustainable forms of territorial development, are in the Slovak Republic implemented within the framework of other programmes, such as South-East Programme or INTERREG IVC.

<sup>12</sup> Elaborated based on <http://www.enviro.gov.sk/servlets/files/10188>

This area has caught the interest of other initiatives too, i.e. LIFE ENV a LIFE+, from which numerous projects have already been implemented in the Slovak Republic.

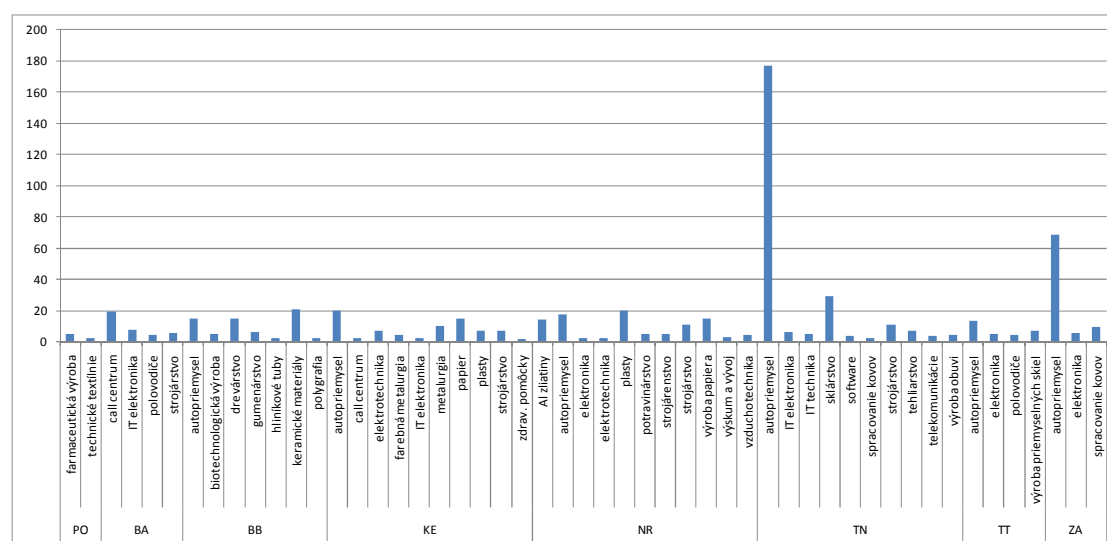
- **Examples of measures/policies likely to strengthen the competitiveness of specific regions/areas (support to clusters; attraction of foreign investments; re-qualification of human resources)**

Direct investments remain the key factor to economic growth, as well as to the growth of the innovative performance of the Slovak Republic. A substantial influx of foreign direct investments (FDIs) in the Slovak Republic has been reflected in a lowered unemployment rate and a rise in living standards and household spending. All of that lures new investors in, mostly from the service sector. Direct investments in the automotive industry and electrical engineering, along with the development of subcontracting networks, are today's driving engine of the Slovak economy.

Attractiveness of the Slovak Republic in the eyes of investors is mostly determined by relatively low labour costs, a relatively skilled and qualified labour force, favourable taxation rate and incentives in the form of investment aid. The most significant tool affecting the volume and structure of foreign direct investments is undoubtedly the investment aid<sup>13</sup>, which can save the investor as high as 50 % of the investment value in terms of acquisition of new production and technology equipment, partial tax relief, contribution to newly created jobs, acquisition of immovable assets or the contribution to retraining of employees.

In the years 2001-2007, the Slovak Republic had granted investors with investment stimuli with a total value of 1.44 mil. EUR, which was reflected in the attracting of 84 mostly strategic investors who would invest more than 5.51 mil. EUR and thus creating a total of 34 783 new jobs by 2016. Incentives granted by the Slovak Republic have also been reflected in the creation of significant production clusters. Among the most important are electrical engineering, automotive and IT clusters. The following chart offers a more in-depth overview.

Investments stimulated by provided state investment aid according to sectors and counties in mil. Sk, source: MH SR



<sup>13</sup> According to the act no. 561/2007 Coll. on Investment Aid as amended

- **Examples of measures/policies likely to prevent and lessen the impacts of climate change on territorial evolution**

The following are among such measures and policies:

**National Climate Program of the SR** deals with estimate specifications on possible climate change impacts on forming adaptation strategies for expected climate changes in the socioeconomic area and natural environment protection in the Slovak Republic.

**The Fourth National Communication on Climate Change and the Report on Demonstrable Progress to Achieve Commitments under the Kyoto Protocol, Slovak Republic, 2005** – which deals with the assessment of climate change impact, vulnerability assessment and adaptation measures in the hydrological cycle, agriculture and forest management (<http://www.enviro.gov.sk/servlets/files/15663>)

**National Forest Programme of the SR for years 2009-2011**

**National Strategic Plan for Rural Development of the SR for years 2007 – 2013**

Programs of Territorial Cooperation 2007-2013 can be further mentioned, among which are, for example, Central Europe Programme 2013 (priority: using environment responsibly), South-East Programme, INTERREG IVC (priority 2: Environment and Risk Prevention, subtopic: Natural and technological risks including climate change); but here are also projects such as „Regioclima“, GRaBS“ and „UrbSpace“ implemented in cooperation with Slovak partners, professionally active in respective areas.

Programs LIFE ENV and LIFE+ thematically also fall within the concerned area. Numerous projects were already implemented in the Slovak Republic, though their focus was mostly laid on environment protection (LIFE04 ENV/SK/000797 can serve as an example of a project focused on climate changes in urban environment, titled: Sustainable Development of Cities and Mitigation of Impacts of Climate Change on Quality of Life and on Environment in Urban Areas).

- **Examples of measures/policies likely to strengthen territorial development through the promotion of renewable energy sources**

In 2006, the Slovak Government approved Proposal of the Energy Policy of the Slovak Republic, which is a strategic document setting out principled goals and frameworks of power industry development in a long term perspective. The Energy Policy is a part of the national economic strategy of the Slovak Republic, ensuring maximum economic growth while retaining sustainable development.

The approved proposal of the Energy Policy of the Slovak Republic is aware of the multinational implications and offers an outlook that reflects the EU energy policies. However, the document is concerned with the national level and it offers objectives and projections of the Energy Policy of the Slovak Republic for the period up to 2020 and with the long-term outlook up to 2030. Eleven priorities have been set to facilitate meeting objectives of the Energy Policy. The 8<sup>th</sup> priority focuses on increasing the share of renewable energy sources in electricity and heat production in order to create adequate additional sources necessary for coverage of domestic demand. Aside from other measures, there is an emphasis put on diversification of acquiring energy sources, which as well leads to the support of more intensive utilization of renewable resources. Among other provisions are the adoption of measures focusing on energy savings and increasing energy effectiveness on the consumption side and

increase in utilization of combined production of heat and electricity. Governmental decree made it also mandatory to develop strategies that would allow for greater utilization of renewable resources in the Slovak Republic. At the same time, it is recommended to break down the Energy Policy of the Slovak Republic into regional energy policies.

According to the Ministry of Economy of the Slovak Republic, the total electricity production generated from renewable energy sources in 2006 (including large hydropower plant potential) amounted to 5.2 TWh, which stood for some 16% of the household electricity consumption. The total available potential of individual types of renewable energy sources enables to increase their share in the overall electricity production to as much as 19% in 2010, 24% in 2020 and 27% in 2030.

Also, Higher Use of Renewable Energy Sources in the SR was adopted; a strategy aimed at better monitoring and higher utilization of renewable energy sources in the SR.

The objective of this initiative, based on assessment of the current development in the World and in the EU, is to gather and review knowledge on the potential of each individual source of renewable energy, to outline options for utilization of established commercial technologies and to propose targets to be reached by 2015 and measures to facilitate the meeting of those targets. While performing an in-depth assessment of individual renewable energy sources, it also defines barriers barring their utilization and need to adopt such legislative measures that would provide for greater use of renewable energy sources, establishing thus a more favourable financial and legal base for faster implementation process.

The act on support of renewable energy sources<sup>14</sup> has been very significant for the support of renewable energy utilization. This act is directly built on relevant legal acts of the European Communities and the European Commission<sup>15</sup>.

Besides attempts to increase the share of renewable energy sources utilization, it is vital to highlight the importance of increasing energy effectiveness. Here, a very important position is being assumed by counties, individual cities and municipalities, for multiple reasons. Self-governing counties as well as cities and municipalities should, by course of law, prepare development conception of municipalities in the area of heat energy. At the same time, the Ministry of Economy of the Slovak Republic issued methodical regulation for development of conceptual framework, which would secure rationalization and reduction in energy consumption on one hand, and foster better use of territorial potential on the other.

- **Examples of measures/policies likely to prevent/reduce the territorial impacts of social polarisation, especially in cities**

Large cities of Central Europe in recent years have become centres of economic growth. The driving force of economic growth has also spread both income and social disparities. Contemporary political initiatives have been either focused on lowering the unemployment rate in regions where it was high, or reducing government spending on social support. The position of individuals and households

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<sup>14</sup> Act no. 309/2009 Coll. on Support of Renewable Energy Sources and Highly Efficient Combined Production and on amendments to certain acts

<sup>15</sup> Directive 2004/8/EC ( OJ L 052 of 21.02.2004) of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC (Extra issue OJ 12/vol. 003; OJ L 52, 21. 2. 2004).

Directive 2001/77/EC ( OJ L 283 of 27.10.2001) of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market (Extra issue OJ 12/vol. 002; OJ L 283, 27. 10. 2001).

located in regions with a high cost of living consisting of a dynamic urban labour market was just not considered.

As opposed to rural areas, cities more intensively manifest the disparities caused by polarization, and hence call for individual approaches to lessen the negative polarization fallout particularly in relation to the poor and marginalized groups.

As of yet, the Slovak Republic does not have more extensive impoverished areas, characteristic slum areas – ghettos, known from Western European and American cities, for which typical aspects like high population density of the poor, violence and criminality tend to pervade.

There are no ethnically segregated areas formed in Slovakia, which would tend to be connected with influx of immigrants in to the country and their concentration in space. However; Slovakia has relatively higher representation of Roma population, the presence of which resulted from the historical evolution of the region and it is tied to specific behavioural patterns in space. The latter is exemplified by existence of segregated Roma settlements exhibiting rather extreme representations of social polarization, high poverty and social exclusion. These settlements are mostly located in rural areas of eastern and partly also central Slovakia. Nonetheless, the most significant, specific and rather isolated example of spatial segregation is city ghetto Luník IX in Košice, a reminder of failed experiment from the socialism era. It constitutes space with high concentration of Roma population, in which prevails high unemployment combined with numerous demonstrations of violence and criminality.

It is a task for local self-governments not to intentionally generate any room for the formation of disadvantaged communities – for example, a displacement of bad payers into segregated communities and thus laying down the basis for possible problem areas.

There are several suggestions which could help reduce the deepening of polarization in cities:

- Mapping of community resources: to begin a process of identification and documentation of what could be considered resources (social networks, hidden knowledge and information, support groups, action groups, etc.) Systematic mapping of community resources carried out with key community representatives might be a next evolutionary step in rural community building.
- Increasing of employment stability: enhancement of security, stability and reliability of the employment is a key factor for sustaining the livelihood by keeping one's job, allowing the households to engage in future planning and participate in an integrated and fully-valued quality life in the society
- Resolving of housing problems and insecurity: For many households, housing is one of the most difficult resources to obtain (ownership), particularly so for young families. Low interest loans and general access to loans and a socially-supported housing sector appear to be very important for securing attainable housing. Important also is the structural problem related to the "overheating" of the regional economy, which is reflected in the heavily inflated prices of apartments.
- Development of community financial institutions: Though some of the households can still attain loans by means of the workplace, there are those which struggle to gain access to commercial loans due to low income and low "credit rating". Community financial institutions, for example "credit union", could be seen, with its portfolio of more convenient loan forms, as an alternative for low-income households.
- Retaining of social assistance benefits, increasing informatization of attainability of social assistance benefits: In many households the income gained from social assistance benefits remains a primary source of income.

Such assistance benefits – special pension – can offer a stable source of income that can allow households and wider families to invest their time and energy into training, job searching or family support. The increase in the value of social assistance benefits would be positively reflected in the improved livelihood of concerned families, sharply reducing the risk of poverty. Difficulties could be minimized also by securing better access to information attainability of social assistance benefits and simplification of the application process.

- **Examples of measures/policies promoting territorial integration along borders**

State borders have long served as communication barriers, which remained the main cause why cross-border regions (despite the admission of the Slovak Republic to the European Union and joining of the Schengen space) are currently suffering from logistical issues, and often enough, also economic and social marginality. The process of marginalization of cross-border regions was in Slovakia affected by natural factors, for large portions of the cross-border regions of Slovakia (especially in the north-western, north and north-eastern part of the country) is located in hardly accessible mountain areas. Another factor contributing to the marginalization of cross-border regions is the lack of regional centres in their vicinity. Despite the fact that the state border (with the sole exception of the eastern border with Ukraine) to this date remains open, it was long closed in the past—and the settlement systems of the states from the opposite sides of the border did not interconnect. The peripheral nature of the north-eastern and also partly the south-eastern cross-border region of the Slovak Republic have also been affected by the significant marginality of adjacent regions on the other side of the state borders (underdeveloped South-eastern Poland and North-eastern Hungary).

The ongoing problems of majority of the cross-border regions in the Slovak Republic (with the exception of regions in south-western part of the country) can be summarized as:

- Growing negative migration balance of the population, possibly population aging
- Insufficient accessibility to major transportation corridors (mostly highways) and to significant regional settlement and economic centres, all in combination with deteriorating functions of public transportation services and lower number of households in possession of an automobile
- Coverage holes (dead-zones) in networks of mobile telecommunication operators, which also reflects a lower penetration of internet services
- Economic and social underdevelopment related to a lingering lack of investments flowing into secondary and tertiary sectors in these regions

The situation is better only in the cross-border regions on the south-western part of the country, where economic and social cooperation flourish, mostly as a result of well-established traditional, social and settlement ties. That is well exemplified by cities such as: Holíč/Skalica (SR) – Hodonín (ČR), Komárno (SR) - Komárom (MR) či Štúrovo (SR) – Esztergom (MR), whereas all stated cities are to be seen as significant regional centres, by means of which cross border cooperation of whole adjacent regions gains momentum. An exceptionally good example of cooperation and mutual cross border communication is metropolitan duo Bratislava (the capital of the SR) and Wien (the capital of Austria).

Several measures have been gradually developing which aims to enhance the integration of the cross border regions of the SR:

- Cooperation at level of so called euro-regions, as a model of a hierarchically higher type of integration
- Development of cross-border cooperation at the level of self-governing regional units
- Formation of regional and micro-regional associations of municipalities of the cross-border regions aimed at cross-border cooperation
- Cross border initiatives of local self-governments focused on development of cross-border ties

Cooperation at a euro-regional level in the Slovak Republic had already begun in the 1990s and it gradually developed into a wide spectrum of cooperation areas (development of transport and tourism infrastructure, the development of cultural and social cooperation, etc.). In the years 1999-2001, the Slovak Republic had successively activated 11 euro-regions. Cooperation fostered by means of self-governing counties appears so far to be somewhat less effective, which relates to their establishment only in year 2001. Though self-governing counties have consequently developed their own institutional background for cross-border cooperation and integration of cross-border territories, they have also recently become relatively successful administrators of EU-funded projects. Hence the self-governing units assume a position of the most significant promoter of integration in marginalized cross-border regions. On the other hand, the budgets of municipalities are limited and thus the municipalities usually focus only on development of cultural and social cross-border cooperation. Nonetheless, they represent a very valuable “bottom-up” activation and integration (“bottom-up” approach).

- **Probable territorial impacts of top-down public policies adopted for the re-boosting of the economy and for lessening the impact of the economic crisis (areas of application; impact on imbalances, on the environment)**

The Government of the SR has been lessening the economic crisis impacts in the short-run by means of stabilizing expansive fiscal policy, particularly the utilization of financial sources from the EU Structural Funds and investment projects in the area of highways. In light of the current economic situation, it protects the deficit from disproportional growth by the reductions in central government expenditures.

In medium-term horizon, however, the expansive fiscal policy is ineffective. Only structural policies can be effective, focused on boosting potential growth of the economy, which not only accelerate a revival of the economy beyond the crisis, but also lessens the impact of future cyclical downturns.

The Government of the SR has adopted a set of measures aimed at lessening the impact of the economic crisis on the Slovak economy:

To Measures with immediate effect and greatest contribution to GDP growth in 2009

- First group comprises measures which immediately stimulate aggregate demand. Among those are: 1. Re-evaluation of public administration balance in years 2009 to 2011, 2. Speed up the drawing process from the EU Funds and 3. Implementation of large investment projects (PPP projects like construction of highways and high-speed communications, completion of Units 3 and 4 at the Mochovce Nuclear Power Plant). The Ministry of Finance of the Slovak Republic expects that adopted measures could generate a

multiplicative effect of 0.5. The effect of fiscal impulse of €1.74 billion and a multiplicative effect of 0.5 on GDP can total to €872 million, which means that the stated measures will contribute to GDP growth by 1.3 percentage points in 2009.

- *Stated measures do possess regional character, which will be manifested, in case of the Mochovce Nuclear Power Plant completion, mostly in the region of Nitra county.*
  - *In case of acquiring financial resources through the Structural Funds in proportion to regional allocation of financial resources: Trnava county 39,60%, Trenčín county 11,60%, Nitra county 14,60%, Žilina county 14,60%, Banská Bystrica county 13,60%, Prešov county 20% and Košice county 16%*
  - *In case of construction of highways and high-speed communications mostly in the regions of Prešov county (46% of the total investments) and Žilina county (29% of the total investments)*
- Second group comprises already implemented measures, which are aimed at improving the business environment, in particular: increase of non-taxable parts of tax base of individual income tax and increase of employment premium, shortening of the period for returning excessive VAT payments, adjusting input prices of tangible and intangible properties under the income tax and positive taxation changes improving the business environment. The effect of these measures may become apparent only in the mid-term horizon, mostly in the area of potential product growth.
    - *Stated measures possess a nationwide Slovak character. However, based on their nature it is reasonable to assume that the most noticeable effects will be manifested in the economically strongest region of Bratislava county. The least apparent effects, on the other hand, are to be expected in economically weakest region of Prešov county.*
  - Last group comprises of measures, the effects of which will only be manifested in the long run and currently impossible to quantify their impact on the economy of the SR in the year 2009.

#### Structural policies – measures with medium term effects

- Strategic document of the SR in area of structural policies, the National Reform Programme of the Slovak Republic for 2008 – 2010, was approved by the Government in October 2008
  - *Institutional reform in area research, development and innovation*
  - *Education and particularly then increasing the quality of higher education*
  - *In area of employment – adjusting of skills and knowledge of human resources to the changing needs of the economy*
  - *Several important measures are being implemented in the area of business environment aimed at achieving higher-quality business and regulatory environment by means of reduction of administrative burden, improvement of public administration services and increased transparency. Emphasis will be laid on informatization of public administration.*
  - *Integrated climate-energy package will significantly contribute to the distinctive change of the country's energy mix in favour of a higher use of low-carbon fuels and an intensive introduction of new, more energy efficient technologies, as a part of ongoing re-structuring of the industry.*

Measures in the areas of education, employment and energy, do possess regional character and are to be implemented in such a way, which will, from the viewpoint of volume of financial sources and capital structure, accommodate for the regional particularities. At the moment, it is not even possible to transparently estimate their impact on a level of national economy. For this reason one cannot assess the impact on individual regions either.