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The Study for Sustainable Development of Agriculture in Zahorska Lowland and Protection of Natural Resources

Final Report

Supporting Report

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THE STUDY FOR SUSTAINABLE DEVELOPMENT OF AGRICULTURE
IN ZAHORSKA LOWLAND AND PROTECTION OF NATURAL RESOURCES

FINAL REPORT

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Agriculture / General / Existing Situation

Title	Author	Issued Date	Publisher	Language
Report on Water Management in the SR 2000 (Green Report)	Ministry of Agriculture of the Slovak Republic	Nov-00	Ministery of Agriculture	English
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Agricultural Policies / Plans / Programmes

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SAPARD. Agricultural & Rural Development Plan of the SR	MoA of SR	Oct-00	Ministery of Agriculture	English
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Agriculture in the SR (selected indicators in 1970-99)	Statistics Office of SR	1999	Statics Office of SR	Slovak-English
Analýza sociálno-ekonomického stavu a vývoja Bratislavského kraja	Regional Statistical Office in Bratislava	Jun-01	Regional Office in Bratislava	Slovak
Bratislavský kraj v číslach a grafoch	Regional Statistical Office in Bratislava	Mar-99	Regional Office in Bratislava	Slovak
Bulletin of 1st halfyear 2001	Regional Statistical Office in Bratislava	Sep-01	Regional Office in Bratislava	Slovak
Census of Area Sown with Crops as of May 20, 2001	Statistics Office of SR	2001	Statics Office of SR	Slovak
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Gross Turnover – Selected Indicators on Agriculture	Statistics Office of SR	1999	Statics Office of SR	Slovak
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Labour Force Sample Survey Results in the Slovak Republic (1994 – 1999)	Statistics Office of SR	2001	Statics Office of SR	English
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ANNEX B	*THE STUDY AREA – BASIC FACTS AND STATISTICS*

ANNEX B.1

INSTITUTIONAL FRAMEWORK OF SLOVAKIA WITH
MUNICIPALITIES AND CADASTERS OF THE STUDY AREA

B.1 INSTITUTIONAL FRAMEWORK OF SLOVAKIA WITH MUNICIPALITIES AND CADASTERS OF THE STUDY AREA

B.1.1 INSTITUTIONAL FRAMEWORK - SELF-GOVERNMENT AND STATE ADMINISTRATION

The present administration of the Slovak Republic is built upon two strands of government, which together make up the political and administrative fabric of the country. These two strands are:

(1) Elected Representatives of the Citizens

- at national level (parliamentary representatives)
- at regional level
- at municipal level.

At the regional level, 8 Regional Self-Governments (VUC) have been established; their creation was approved in July 2001 and first elections were held in December 2001. Law No. 302/2001 set out the function and responsibilities of the VUC in November 2001; their prime responsibilities are as follows:

- co-ordination of national and regional development actions
- co-ordination of regional development programmes
- co-ordination of cross-border programmes.

The relationship between the elected VUC and the existing state government institutions, especially the Regional (*Kraj*) and District (*Okres*) offices (see below), is not yet clear, nor how the previous executive responsibilities and budgets of the *Kraj* and *Okres* will be managed. Some form of partnership is likely. Because this Study is of both sectoral and regional significance the Bratislava VUC (within which the Study Area falls) can be expected to take an interest in the results, even though the Study has been carried out at a sub-regional level.

However for this rural/agricultural study of the Zahorska Lowland, the local, municipal representatives are especially important and their organisation (national and local) is described further in the following paragraphs.

The elected representatives of the 2 878 municipalities in Slovakia operate in the form of town (*mesto*) and village (*obec*) councils. There are 136 towns and 2 724 villages; each is led by an elected mayor and has a supporting executive, with staff numbers ranging from 1 (in the case of very small, rural villages) to over 100 for the executive of large cities. The mayors of town are called *Primator* and those of village (i.e. villages in rural areas) are called *Starosta*. The mayors of towns have a greater degree of autonomy. Most municipalities are members of a Regional Association of Towns and Villages (ZMOS), which together form the National Association of ZMOS; a smaller number of the larger municipalities are also members of the Union of Cities of Slovakia (UMO). Some Municipalities are members of both these organizations - membership being on an entirely voluntary basis.

These associations are partners in national government in that they send comments on draft legislation, but only on an unofficial basis i.e. they have no legal power. Therefore they act as a 'lobby' to parliament and also to the State Administration at national (Ministry), Region and District levels.

The populations of some municipalities are very small (less than 500) so, in some areas, neighbouring Municipalities have established informal unions called 'Micro-regions', in order to facilitate design and implementation of development programmes and to benefit in other ways from economies of scale.

In the Study Area there are 32 Municipalities, of which two are towns (Stupava and Malacky) and 30 villages (see Table B.1.1). We are not aware that any micro-regions have been formally established by the Municipalities in the Study Area.

(2) The State Administration, which is made up of civil servants at three levels across the Republic:

1) National Level – including the Ministry of Agriculture and its Agencies and Research Institutions.

Civil Servants administer policies through the various Ministries of the Slovak Republic. Ministries that have particular relevance to the Study Area and its rural affairs, agriculture and irrigation include the Ministry of Land Resources/Agriculture (responsible for agriculture, forestry and water management); the Ministry of Environment (responsible for Territorial Planning, Protected Landscape Areas and monitoring of water quality); Ministry of Construction and Regional Development (responsible for Regional and Slovak-Austria Cross Border Co-operation strategies); Ministry of Interior (with responsibility for 8 regions and 79 districts offices throughout the country); the Ministry of Economy (responsible for industry and tourism).

2) Regional (*Kraj)* Level Administration.

There are 8 regions across the Slovak Republic, with staff appointed by the Ministry of Interior, but no elected representatives; their relationship with the regional assemblies elected in December 2001 is in the process of being clarified. The *Region* Offices (*Krajsky Urad*) were required by law to co-ordinate the preparation and implementation of social and economic development plans (especially in the form of medium- to long-term Territorial Plans), with local government and other public sector institutions of the region area. They possess agricultural, environmental and other staff, who operate under the technical guidance of the Ministry of Agriculture, Ministry of Environment etc, but with decision-making being the responsibility of the regional administration.

3) District (*Okres*) Level Administration.

There are 79 districts across the Slovak Republic and, as for the Region Office (Krajsky Urad), their staff are appointed by the Ministry of Interior and there are no elected representatives. The role of the District Office (*Okresny Urad*) includes the co-ordination of social and economic development plans and strategic development of the district. They have a host of other roles including environmental planning, registration of small firms, transport planning and provision, consumer protection and

provision of health care, education and culture and international co-operation. The regional development function is undertaken by regional development departments, which are responsible for preparing and monitoring social and economic development strategies for the district, and co-ordinating the initiatives of citizens and institutions with regard to district development. One aspect of this is the co-ordination of the needs and requirements of small municipalities (*Obec*) in rural areas of the district.

Most of the Study Area (28 villages) falls into Bratislava region (Bratislava IV and Malacky Districts), the remaining 4 villages falling into Trnava region (Senica District).

4) Previous Administrative Divisions

It should be noted that, prior to July 1996, Slovakia was divided into four major regions, Bratislava and West, Central and Eastern Slovakia and these were sub-divided into 37 districts. These previous districts were larger; for example the district of Malacky, Pezinok and Senec all fell within the former *district* "Bratislava - vidiek po uzemnom cleneni" (Bratislava - Rural Territorial Division). Though some organisations (e.g. the Western and Central Slovak Water Supply and Sewerage Companies, ZsVak and StVak), still operate according to the previous divisions, these administrative divisions are, formally, no longer in existence as far as regional government is concerned.

B.1.2 MUNICIPALITIES AND CADASTERS OF THE STUDY AREA

The Study Area, for the purpose of investigating most "technical/physical" characteristics (soil, agronomy etc), covers all or just a part of the cadasters listed above and excludes the eight cadasters of the Zahorie Military Area (286 km²). The "technical/physical" Study Area excludes those parts of cadasters, on the forested western slopes of the Male Karpaty Mountains, that fall within the Protected Landscape Area (PLA). However, with respect to socio-economic and land use information, the whole cadaster is the smallest unit for which statistical data on e.g. population, agricultural land etc is available. Therefore, the socio-economic and land use data obtained and used in this study, are derived from the total area of each of the cadasters listed above i.e. from a total of 843 km². However, except for the cadaster of Borinka I, where there is a small village inside the PLA, those parts of the cadasters that fall outside the "technical/physical" Study Area are, by and large, uninhabited; they are principally the forested parts of the Male Karpaty Mountains, falling within the PLA, and have an area totalling 209 km². Therefore, for practical purposes, the socio-economic data relate very closely to the "technical/physical" Study Area.

Table B.1.1 List of Municipalities and Cadastres of the Study Area

District	*Village/Town Name*	*Area [ha]*	*Cadaster name*	*Area [m2]*
BRATISLAVA IV	DEVINSKA NOVA VES	2,423	DEVINSKA NOVA VES	24,227,754
104 (Ref)	LAMAC	654	LAMAC	6,543,201
	ZAHORSKA BYSTRICA	3,229	ZAHORSKA BYSTRICA I.	32,292,322
Bratislava IV District	Number of Villages/Towns:	Area [ha]	Number of Cadasters:	Area [m2]
In Study Area	3	6,306	3	63,063,277

MALACKY	BORINKA	1,580	BORINKA I.	15,324,552
106 (Ref)			BORINKA II.	472,288
	GAJARY	5,088	GAJARY	50,878,369
	JABLONOVE	1,322	JABLONOVE	13,222,114
	JAKUBOV	2,086	JAKUBOV	20,859,061
	KOSTOLISTE	1,683	KOSTOLISTE	16,825,028
	KUCHYNA	4,472	KUCHYNA	44,722,577
	LAB	2,785	LAB	27,852,362
	LOZORNO	4,431	LOZORNO	44,312,001
	MALACKY (town)	2,320	MALACKY	23,202,355
	MALE LEVARE	2,176	MALE LEVARE	21,759,878
	MARIANKA	322	MARIANKA	3,223,477
	PERNEK	2,766	PERNEK	27,664,508
	PLAVECKE PODHRADIE	2,119	PLAVECKE PODHRADIE	21,187,916
	PLAVECKY MIKULAS	2,668	PLAVECKY MIKULAS	26,683,596
	PLAVECKY STVRTOK	2,246	PLAVECKY STVRTOK I.	21,848,578
			PLAVECKY STVRTOK II.	608,661
	ROHOZNIK	2,747	ROHOZNIK	27,473,675
	SOLOSNICA	3,775	SOLOSNICA	37,748,338
	STUDIENKA	1,563	STUDIENKA	15,634,421
	STUPAVA (town)	6,718	MAST I.	9,497,735
			MAST II.	1,156,679
			MAST III.	1,365,822
			STUPAVA	52,559,977
			ZAHORSKA BYSTRICA II.	2,084,238
			ZAHORSKA BYSTRICA III.	513,958
	SUCHOHRAD	1,541	SUCHOHRAD	15,406,667
	VELKE LEVARE	2,400	VELKE LEVARE	23,998,113
	VYSOKA PRI MORAVE	3,358	VYSOKA PRI MORAVE	33,575,735
	ZAHORIE	*28,634*	*BAZANTNICA*	*58,373,772*
	(military area)		*CERVENY KRIZ*	*1,258,986*
			NIVKY	*30,354,297*
			OBORA	*34,190,457*
			RIADOK	*31,475,542*
			SRANEK	*48,157,585*
			TURECKY VRCH	*20,095,338*
			ZAHORIE	*62,436,118*
	ZAHORSKA VES	1,306	ZAHORSKA VES	13,059,546
	ZAVOD	2,737	ZAVOD	27,373,777
	ZOHOR	2,113	ZOHOR	21,127,379
	Number of Villages/Towns:	Area [ha]	Number of Cadasters:	Area [m2]
Malacky District	26	94,957	40	949,565,476
Military Area	*1*	*28,634*	*8*	*286,342,095*
In Study Area	**25**	**66,322**	**32**	**663,223,381**

SENICA	BORSKY SVATY JUR	3,972	BORSKY SVATY JUR	39,719,158
205 (Ref)	MORAVSKY SVATY JAN	3,922	MORAVSKY SVATY JAN	39,218,928
	PLAVECKY PETER	1,478	PLAVECKY PETER	14,782,528
	SEKULE	2,324	SEKULE	23,243,461
Senica District	Number of Villages/Towns:	Area [ha]	Number of Cadasters:	Area [m2]
In Study Area	4	11,696	4	116,964,075

GRAND TOTALS	32	84,325	39	843,250,733

Source: SWME - ID - land register database from Institute of Geodezy and Cartography in Bratislava

Figure B.1.1 Administrative Boundaries in the Morava River Basin

source:GCI

ANNEX B.2

DEMOGRAPHY OF THE STUDY AREA

B.2 DEMOGRAPHY OF THE STUDY AREA

B.2.1 POPULATION AND DENSITY

(1) Results of 1991 Census

Though a national census was carried out in 2001, the results of this are not yet available at a village/cadaster level. The results of the 1991 census, updated to 1996, are therefore presented in Table B.2.1 and mapped in Figure B.2.1. The total population of the Study Area was then 93,933. When considering those parts of the 3 districts (okres), (Malacky, Bratislava IV and Senica), that fall into the Study Area, in each of them there were more women than men. The sex ratio is consistent with the national ratio of women to men, though the proportion of men becomes higher (relatively) in the more rural areas (Malacky and Senica) than in Bratislava IV.

Sex Ratio of Population, 1996

Area	Proportion of Females %
District (part within Study Area)	
Malacky 1996	51.08
Bratislava IV 1996	52.09
Senica 1996	50.57
Study Area as a whole 1996	51.32
National 1991	51.22

When comparing the different parts of the Study Area, as determined by its three districts, the average population density of the four rural villages in Senica districts is the lowest (49.15 per km²), as might be expected. The average density of the population in Malacky district, excluding the Military Area, is 94.11 per km² and of Bratislava IV (within the Study Area) is 408.59 per km².

Malacky is the largest settlement within the Study Area with a population of 18,090, Devinska Nova Ves (16,738) the second largest and Stupava (7,819) the third largest. When considering the size distribution of the villages, by population, there is a predominance of small and medium-sized villages (22).

Obec Size (population)	No.
Small Village (<1000)	9
Medium Size Village (1000-2000)	13
Large Village / Town (>2000)	10

Rohoznik, Velke Levare and Zohor are the only villages in Malacky district with populations greater than 3,000. In 1996 all the villages in the Senica part of the Study Area had populations of less than 2,000, though that of Moravsky Svaty Jan had increased to 2004 by 1999.

(2) Population Changes since 1996

Village level data on population for the years 1996 to 1999 have been obtained from the National Statistics Office. A summary is presented in Table B.2.2. Comparing 1999 with 1996 there was a population increase of 1.30 % for the Study Area; this compares with an increase of 0.37% for all Slovakia (from 5,378,932 to 5,398,657) for the same period and of 1.94% (5,295,877 to 5,398,657) for the period 1991 to 1999. Within the districts of the Study Area, the population increase ranged from 0.68% in Bratislava IV to 1.59% in Malacky, with that in Senica falling in between at 0.96%. The only villages that recorded a drop in population between 1996 and 1999 were Plavecke Podhradie and Zohor in Malacky district and Lamac in Bratislava IV.

Corresponding figures for Bratislava City (Districts I to V) for 1991, 1996 and 1999 could not be obtained, but for 1990 and 1998 the population increased 1.10%, from 444,660 to 449,547. This suggests that the population increase in the urban area of Bratislava is less than in rural areas of Slovakia (see below for further discussion on population changes in Bratislava City). With the data available it has not been possible to investigate the population change in what is now Bratislava region (*Kraj)* from 1991 to 1996 to 1999, because the region did not come into existence until 1996 (its total population in 1999 was 616,982).

B.2.2 DEMOGRAPHIC ANALYSES

(1) Net Migration

To investigate the further the population changes in the Study Area, and the extent to which they could be attributed to a natural increase or to net immigration, further analysis was undertaken of birth/death and immigration/emigration statistics that were available for 1996 and 1999 (Table B.2.3 and Figure B.2.2). These show a small 'natural' decrease in the population of the Study Area of -31 in each of 1996 and 1999, consisting of decreases in both Malacky (especially Stupava) and Senica District, countered by a small increase in each year in the more urban Bratislava IV part of the Study Area. The immigration/emigration figures show a noticeable turnover (indicating a degree of labour mobility) but with net immigration into the Study Area. Therefore the increase in population between 1996 and 1999 is driven by immigration, rather than natural increases. This net immigration applies to the parts of the Study Area in all three districts. In some villages/towns in some years there was net emigration, but this was never large (-14 in Malacky town (*obec)* in 1999 being the greatest net loss).

In conclusion it can be stated that the population increase in the Study Area is greater than the national average and is attributable to immigration and not natural increases. The more distant rural areas of Slovakia are a possible source of this net immigration, since the national population increase is less than that in the Study Area, but Bratislava City was investigated. After reaching a peak in 1996, the population of Bratislava City actually declined in 1997, 1998 and 1999 (Figure B.2.3), to a level just lower than that in1993. This suggests that there has been a slight shift of the urban population to peri-urban and more rural areas near to Bratislava, including Zahorie.

Further analysis of migration statistics is presented in Table B.2.4. According to this table there is net migration into all three districts of the Study Area in all of the years 1996 to 1999. In relation to the population size in 1999, the annual net immigration figure (averaged over the four years) was 5.77 per thousand for the 4 villages in Senica district, 5.54 per thousand for Malacky district and only 2.15 per thousand for the municipalities of Bratislava IV. Table B.2.4 ranks the villages/towns according to immigration rates, those with the highest rates listed first. The top 6 (Stupava, Malacky, Velke Levare, Zavod, Gajary and Lozorno) are all villages/towns with populations over 2,500 inhabitants; as well as their size, a common feature is their proximity to the E65 highway from Bratislava to the Czech Republic. Only in 3 municipalities, Rohoznik, Plavecke Podhradie and Lamac, was there overall net emigration over the years 1996 to 1999.

(2) Age Structure

Data on the age structure of the population and two related parameters, mean age and ageing index[1], are presented in Tables B.2.5, 2.6 and 2.7 and Figure B.2.4. There is considerable variation in the mean age of the various municipalities, with Plavecky Peter and Rohoznik having especially low mean ages, both of 30.5 years and with correspondingly low ageing indices (27.7 years and 34.4 years respectively in 1999). The national mean age is 35.68 years. As well as having a very 'young' village in the form of Plavecky Peter, Senica district also has 2 villages, Borsky Svaty Jur and Moravsky Svaty Jan, with almost the oldest populations (41.0 and 41.3 years mean age respectively) - the oldest being Borinka, where the mean age of the inhabitants is 44.4 years. The range in mean age (35.0 years to 38.2 years) in the municipalities of Bratislava IV, which are in the Study Area, is quite low compared to those municipalities in Malacky and Senica.

When the villages are grouped according to population size and the mean ages and ageing indices are examined no particular trend is evident, though there is some suggestion that the smaller villages (less than 1,000) have a slightly 'older' population than the larger villages and towns (Table B.2.7).

The ageing index for Slovakia as a whole in 1999 was 90.54 (having been increasing steadily from 78.8 in 1995). In comparison, only 5 of the Municipalities in the Study Area (Rohoznik, Malacky, Zavod, Devinska Nova Ves and Plavecky Peter) have ageing indices less than 90 this, two (Lamac and Sekule) have indices almost the same as the national index while the remaining 25 municipalities have higher ageing indices (Table B.2.7). This suggests that the overall age structure of the Study Area is skewed towards an older population than is found at the national level.

Data for larger administrative units encompassing the Study Area, including figures for Slovakia as a whole, are presented below. The main feature of these data is the high ageing index for Bratislava City, which contributes also to a high index for Bratislava region.

[1] Ageing index represents the ratio of post-productive population (men and women aged 60 and more and 5 and more, respectively) to pre-productive population (inhabitants aged from 0 to 14 years).

Population Indicators for Administrative Units Encompassing the Study Area (31.12.1999)

Administrative Unit District, Region etc	Population (%) in age groups			Mean Age	Ageing Index
	Pre-productive	Productive	Post-Productive		
Bratislava IV	19.33	63.72	16.95	36.31	87.66
Malacky	18.41	63.82	17.77	36.02	96.54
Senica	19.31	62.90	17.79	35.67	92.11
Bratislava City	15.66	65.33	19.01	37.98	121.35
Bratislava Region	16.36	64.90	18.75	37.51	114.60
Trnava Region	18.60	63.36	18.04	36.08	96.99
Slovak Republic Total	19.81	62.26	17.93	35.68	90.54

Source: Selected Data on the Regions in the Slovak Republic (Statistical Office of the Slovak Republic, 2000)

(3) Conclusion – Suburbanisation?

It appears that some villages, in the south of Zahorie in particular, and along the highway to the Czech Republic are already or may be in the process of being developed as 'dormitory settlements' for Bratislava, e.g. Borinka, Lozorno, Marianka, Stupava, Zahorska Bystrica, Zohor and Malacky. In such settlements a situation is developing where there can be two societies in one village - the original inhabitants, plus newcomers.

In the smaller villages, more remote from Bratislava, there is a problem of ageing populations, which will have social consequences and perhaps of people previously employed in industry staying in (or returning to) to their village while trying to find work.

Table B.2.1 Area and Population of Villages/Towns of Zahorie

District	Code	Village/Town Name	AREA [ha]	Population Density Total/Km2	Population	Male	Female
					1996		
MALACKY	507831	BORINKA	1,580	26.59	420	209	211
106 (Ref)	507890	GAJARY	5,088	49.14	2500	1197	1303
	507954	JABLONOVE	1,322	78.96	1044	516	528
	507962	JAKUBOV	2,086	62.28	1299	647	652
	508012	KOSTOLISTE	1,683	52.30	880	432	448
	508021	KUCHYNA	4,472	34.88	1560	763	797
	508039	LAB	2,785	48.29	1345	638	707
	508055	LOZORNO	4,431	57.57	2551	1264	1287
	508063	MALACKY (town)	2,320	779.66	18090	8829	9261
	504556	MALE LEVARE	2,176	45.13	982	476	506
	508080	MARIANKA	322	283.85	915	439	476
	508161	PERNEK	2,766	26.75	740	357	383
	504629	PLAVECKE PODHRADIE	2,119	32.38	686	340	346
	504637	PLAVECKY MIKULAS	2,668	26.57	709	348	361
	508195	PLAVECKY STVRTOK	2,246	86.39	1940	938	1002
	504769	ROHOZNIK	2,747	122.99	3379	1697	1682
	504858	SOLOSNICA	3,775	38.41	1450	733	717
	504874	STUDIENKA	1,563	97.67	1527	740	787
	508233	STUPAVA (town)	6,718	116.39	7819	3811	4008
	508241	SUCHOHRAD	1,541	35.18	542	271	271
	504947	VELKE LEVARE	2,400	134.30	3223	1602	1621
	508349	VYSOKA PRI MORAVE	3,358	53.61	1800	844	956
	500267	*ZAHORIE*	*28,634*	1.79	*512*	*258*	*254*
	508365	ZAHORSKA VES	1,306	112.79	1473	734	739
	504980	ZAVOD	2,737	92.13	2522	1257	1265
	508381	ZOHOR	2,113	142.99	3021	1454	1567
Number of Villages/Towns:			Area [ha]				
Okres Malacky		26	94,957	66.27	62,929	30,794	32,135
Military Area		*1*	*28,634*	1.79	*512*	*258*	*254*
In Study Area		**25**	**66,322**	**94.11**	**62,417**	**30,536**	**31,881**
In %					**100**	**48.92**	**51.08**
BRATISLAVA IV	529371	DEVINSKA NOVA VES	2,423	690.86	16738	8205	8533
104 (Ref)	529419	LAMAC	654	1098.24	7186	3273	3913
	529427	ZAHORSKA BYSTRICA	3,229	57.07	*1843	868	975
Number of Villages/Towns:			Area [ha]				
Okres Bratislava IV							
In Study Area		**3**	**6,306**	**408.59**	**25,767**	**12,346**	**13,421**
In %					**100**	**47.91**	**52.09**
SENICA	504220	BORSKY SVATY JUR	3,972	39.10	1553	725	828
205 (Ref)	504572	MORAVSKY SVATY JAN	3,922	50.89	1996	1039	957
	504645	PLAVECKY PETER	1,478	42.69	631	313	318
	556114	SEKULE	2,324	67.50	1569	765	804
Number of Villages/Towns:			Area [ha]		**100.00**	**48.76**	**51.24**
Okres Senica							
In Study Area		**4**	**11,696**	**49.15**	**5,749**	**2,842**	**2,907**
In %						**49.43**	**50.57**
GRAND TOTALS		**32**	**84,325**	**111.39**	**93,933**	**45,724**	**48,209**
In %					**100**	**48.68**	**51.32**

Source: RIMLE - land register database from Institute of Geodesy and Cartography in Bratislava.

* Population for all Z.B .(Z.B. I and Z.B. II) in Bratislava Kraj

Table B.2.2 Population indicators for the study area

	District:	Area	1996			1997	1998	1999	1999/1996	1996	1999
			Male	Female	Population	Population			Change	Population density	
	MALACKY	ha	%	%					%	Population/km2	
BRATISLAVA REGION	BORINKA	1,580	49.76	50.24	420	422	445	434	103.33	26.59	27.47
	GAJARY	5,088	47.88	52.12	2,500	2,531	2,566	2,577	103.08	49.14	50.65
	JABLONOVE	1,322	49.43	50.57	1,044	1,041	1,053	1,051	100.67	78.96	79.49
	JAKUBOV	2,086	49.81	50.19	1,299	1,312	1,338	1,348	103.77	62.28	64.62
	KOSTOLISTE	1,683	49.09	50.91	880	886	901	924	105.00	52.30	54.92
	KUCHYNA	4,472	48.91	51.09	1,560	1,573	1,597	1,591	101.99	34.88	35.57
	LAB	2,785	47.43	52.57	1,345	1,354	1,361	1,369	101.78	48.29	49.15
	LOZORNO	4,431	49.55	50.45	2,551	2,559	2,591	2,621	102.74	57.57	59.15
	MALACKY (town)	2,320	48.81	51.19	18,090	18,219	18,266	18,293	101.12	779.66	788.41
	MALE LEVARE	2,176	48.47	51.53	982	979	991	1,002	102.04	45.13	46.05
	MARIANKA	322	47.98	52.02	915	916	915	921	100.66	283.85	285.72
	PERNEK	2,766	48.24	51.76	740	752	761	756	102.16	26.75	27.33
	PLAVECKE PODHRADIE	2,119	49.56	50.44	686	670	670	675	98.40	32.38	31.86
	PLAVECKY MIKULAS	2,668	49.08	50.92	709	704	707	716	100.99	26.57	26.83
	PLAVECKY STVRTOK	2,246	48.35	51.65	1,940	1,966	1,968	1,983	102.22	86.39	88.30
	ROHOZNIK	2,747	50.22	49.78	3,379	3,396	3,395	3,407	100.83	122.99	124.01
	SOLOSNICA	3,775	50.55	49.45	1,450	1,468	1,472	1,478	101.93	38.41	39.15
	STUDIENKA	1,563	48.46	51.54	1,527	1,534	1,544	1,549	101.44	97.67	99.08
	STUPAVA (town)	6,718	48.74	51.26	7,819	7,794	7,813	7,854	100.45	116.39	116.91
	SUCHOHRAD	1,541	50.00	50.00	542	557	564	579	106.83	35.18	37.58
	VELKE LEVARE	2,400	49.71	50.29	3,223	3,282	3,343	3,358	104.19	134.30	139.93
	VYSOKA PRI MORAVE	3,358	46.89	53.11	1,800	1,792	1,819	1,819	101.06	53.61	54.18
	ZAHORIE	*28,634*	*50.39*	*49.61*	*512*	*520*	*515*	*517*	*100.98*	*1.79*	*1.81*
	ZAHORSKA VES	1,306	49.83	50.17	1,473	1,498	1,502	1,524	103.46	112.79	116.70
	ZAVOD	2,737	49.84	50.16	2,522	2,533	2,567	2,575	102.10	92.13	94.07
	ZOHOR	2,113	48.13	51.87	3,021	3,030	3,004	3,004	99.44	142.99	142.19
	SUB TOTAL	66,322	48.92	51.08	62,417	62,768	63,153	63,408	101.59		
	BRATISLAVA IV										
	DEVINSKA NOVA VES	2,423	49.02	50.98	16,738	16,844	16,841	16,915	101.06	690.86	698.17
	LAMAC	654	45.55	54.45	7,186	7,129	7,043	7,061	98.26	1098.24	1079.14
	ZAHORSKA BYSTRICA	3,229	47.10	52.90	1,843	1,867	1,903	1,966	106.67	57.07	60.88
	SUB TOTAL	6,306	47.91	52.09	25,767	25,840	25,787	25,942	100.68		
TRNAVA REGION	**SENICA**										
	BORSKY SVATY JUR	3,972	46.68	53.32	1,553	1,544	1,553	1,581	101.80	39.10	39.80
	MORAVSKY SVATY JAN	3,922	52.05	47.95	1,996	2,000	1,993	2,004	100.40	50.89	51.10
	PLAVECKY PETER	1,478	49.60	50.40	631	645	638	644	102.06	42.69	43.56
	SEKULE	2,324	48.76	51.24	1,569	1,567	1,571	1,575	100.38	67.50	67.76
	SUB TOTAL	11,696	49.43	50.57	5,749	5,756	5,755	5,804	100.96		
	GRAND TOTAL	84,325	48.68	51.32	93,933	94,364	94,695	95,154	101.30		
	SLOVAKIA	4,903,500	48.68	51.32	5,378,932	5,387,650	5,393,382	5,398,657	100.37		

Source: Statistical Office of the Slovak Republic
Population as of Dec. 31.

Table B.2.3 Analysis of Population Increase and Migration in the Study Area between 1996 and 1999

	District:		1996				Total	1999				Total
	MALACKY	Code	Natural increase	Immigrants	Emigrants	Net migration	Increase (decrease)	Natural increase	Immigrants	Emigrants	Net migration	Increase (decrease)
BRATISLAVA REGION	BORINKA	507831	-3	12	9	3	0	-8	7	10	-3	-11
	GAJARY	507890	-3	39	35	4	1	-5	50	34	16	11
	JABLONOVE	507954	8	28	22	6	14	-9	28	21	7	-2
	JAKUBOV	507962	6	22	28	-6	0	0	23	13	10	10
	KOSTOLISTE	508012	0	20	6	14	14	1	30	8	22	23
	KUCHYNA	508021	-6	31	35	-4	-10	-9	26	23	3	-6
	LAB	508039	-5	26	29	-3	-8	0	23	15	8	8
	LOZORNO	508055	-5	36	28	8	3	-1	65	34	31	30
	MALACKY (town)	508063	18	317	229	88	106	41	224	238	-14	27
	MALE LEVARE	504556	-3	19	13	6	3	0	24	13	11	11
	MARIANKA	508080	-11	26	21	5	-6	-6	36	24	12	6
	PERNEK	508161	2	9	12	-3	-1	-3	21	23	-2	-5
	PLAVECKE PODHRADIE	504629	-2	9	17	-8	-10	-4	19	10	9	5
	PLAVECKY MIKULAS	504637	-1	8	16	-8	-9	4	10	5	5	9
	PLAVECKY STVRTOK	508195	4	36	37	-1	3	7	44	36	8	15
	ROHOZNIK	504769	31	101	68	33	64	22	56	66	-10	12
	SOLOSNICA	504858	6	14	22	-8	-2	4	20	18	2	6
	STUDIENKA	504874	-2	25	23	2	0	4	15	14	1	5
	STUPAVA (town)	508233	-95	219	149	70	-25	-68	236	127	109	41
	SUCHOHRAD	508241	1	15	5	10	11	1	15	1	14	15
	VELKE LEVARE	504947	0	54	48	6	6	-1	73	57	16	15
	VYSOKA PRI MORAVE	508349	-3	26	29	-3	-6	-3	33	30	3	0
	ZAHORIE	*500267*	*0*	*15*	*11*	*4*	*4*	*2*	*5*	*5*	*0*	*2*
	ZAHORSKA VES	508365	8	31	29	2	10	6	45	29	16	22
	ZAVOD	504980	-15	36	27	9	-6	-5	42	29	13	8
	ZOHOR	508381	0	84	48	36	36	-20	63	43	20	0
	SUB TOTAL		-70	1,243	985	258	188	-52	1,228	921	307	255
	BRATISLAVA IV											
	DEVINSKA NOVA VES	529371	85	381	280	101	186	57	379	362	17	74
	LAMAC	529419	-34	147	170	-23	-57	-12	195	165	30	18
	ZAHORSKA BYSTRICA	529427	-8	63	22	41	33	-20	102	19	83	63
	SUB TOTAL		43	591	472	119	162	25	676	546	130	155
TRNAVA REGION	**SENICA**											
	BORSKY SVATY JUR	504220	3	13	30	-17	-14	4	40	16	24	28
	MORAVSKY SVATY JAN	504572	-4	31	39	-8	-12	-16	41	14	27	11
	PLAVECKY PETER	504645	2	18	3	15	17	-2	12	4	8	6
	SEKULE	556114	-5	38	26	12	7	10	13	19	-6	4
	SUB TOTAL		-4	100	98	2	-2	-4	106	53	53	49
	GRAND TOTAL		-31	1,934	1,555	379	348	-31	2,010	1,520	490	459

Source: Statistical Office of the Slovak Republic

Table B.2.4 Analysis of Migration in the Study Area from 1996 to 1999

Villages ranked in descending order according to scale of net immigration

	District:	1996	1997	1998	1999	
	MALACKY	Net migration				GRAND TOTAL
BRATISLAVA REGION	STUPAVA (town)	70	72	96	109	347
	MALACKY (town)	88	90	-12	-14	152
	VELKE LEVARE	6	52	54	16	128
	ZAVOD	9	19	41	13	82
	GAJARY	4	17	35	16	72
	LOZORNO	8	9	23	31	71
	ZAHORSKA VES	2	20	20	16	58
	KOSTOLISTE	14	9	11	22	56
	ZOHOR	36	15	-20	20	51
	VYSOKA PRI MORAVE	-3	7	37	3	44
	SUCHOHRAD	10	15	2	14	41
	JAKUBOV	-6	6	29	10	39
	BORINKA	3	5	33	-3	38
	JABLONOVE	6	3	16	7	32
	MALE LEVARE	6	3	9	11	29
	PLAVECKY STVRTOK	-1	11	10	8	28
	MARIANKA	5	5	4	12	26
	KUCHYNA	-4	9	16	3	24
	PERNEK	-3	13	14	-2	22
	LAB	-3	9	6	8	20
	STUDIENKA	2	4	13	1	20
	SOLOSNICA	-8	16	2	2	12
	PLAVECKY MIKULAS	-8	-4	11	5	4
	ZAHORIE	4	6	-6	0	4
	ROHOZNIK	33	-1	-30	-10	-8
	PLAVECKE PODHRADIE	-8	-19	2	9	-16
	SUBTOTAL	258	385	422	307	1,372
	BRATISLAVA IV					
	ZAHORSKA BYSTRICA	41	56	48	83	228
	DEVINSKA NOVA VES	101	16	-46	17	88
	LAMAC	-23	-46	-54	30	-93
	SUBTOTAL	119	26	-52	130	223
TRNAVA REGION	**SENICA**					
	MORAVSKY SVATY JAN	-8	12	19	27	50
	BORSKY SVATY JUR	-17	8	19	24	34
	PLAVECKY PETER	15	8	-5	8	26
	SEKULE	12	11	7	-6	24
	SUBTOTAL	2	39	40	53	134
	GRAND TOTAL	379	450	410	490	1,729

Source: Statistical Office of the Slovak Republic

Table B.2.5 Population age structure by economic groups

	District:	1996			1997			1998			1999		
	MALACKY	1	2	3	1	2	3	1	2	3	1	2	3
BRATISLAVA REGION	BORINKA	15.24	50.24	34.52	13.27	52.13	34.60	12.81	55.51	31.69	12.21	56.91	30.88
	GAJARY	19.72	60.52	19.76	19.60	60.53	19.87	19.49	61.22	19.29	18.94	62.17	18.90
	JABLONOVÉ	21.07	58.05	20.88	20.56	58.89	20.56	20.42	58.97	20.61	19.70	60.42	19.89
	JAKUBOV	18.71	62.89	18.40	17.91	63.80	18.29	17.19	64.95	17.86	17.14	65.43	17.43
	KOSTOLIŠTE	16.93	64.89	18.18	16.37	66.14	17.49	15.54	66.81	17.65	14.39	67.75	17.86
	KUCHYNA	18.53	59.62	21.86	17.67	61.03	21.30	17.53	61.18	21.29	17.22	61.28	21.50
	LÁB	19.41	57.84	22.75	18.98	58.20	22.82	18.15	58.71	23.14	17.17	60.04	22.79
	LOZORNO	19.87	60.37	19.76	19.19	61.59	19.23	19.03	61.83	19.14	18.70	62.42	18.89
	MALACKY	22.02	64.29	13.69	21.13	64.93	13.94	20.12	65.91	13.97	19.17	66.47	14.36
	MALÉ LEVÁRE	21.59	56.42	22.00	21.25	57.41	21.35	21.29	57.92	20.79	20.56	59.18	20.26
	MARIANKA	15.96	56.50	27.54	16.38	56.00	27.62	16.07	56.94	26.99	15.85	57.55	26.60
	PERNEK	16.08	59.46	24.46	15.29	61.17	23.54	15.77	61.63	22.60	15.74	61.38	22.88
	PLAVECKÉ PODHRADIE	19.68	56.12	24.20	19.25	55.52	25.22	19.10	56.42	24.48	19.70	56.44	23.85
	PLAVECKÝ MIKULÁŠ	19.61	55.71	24.68	19.18	56.11	24.72	18.10	58.13	23.76	18.58	56.98	24.44
	PLAVECKÝ ŠTVRTOK	18.92	60.15	20.93	18.77	60.63	20.60	18.55	61.53	19.92	17.15	62.78	20.07
	ROHOŽNÍK	27.82	64.46	7.72	25.97	66.34	7.69	24.48	67.81	7.72	22.98	69.12	7.90
	SOLOŠNICA	20.21	59.72	20.07	18.87	60.56	20.57	18.41	61.21	20.38	17.73	61.43	20.84
	STUDIENKA	20.50	57.76	21.74	19.69	57.82	22.49	18.46	59.20	22.34	18.27	59.65	22.08
	STUPAVA	18.24	62.36	19.40	17.36	62.75	19.89	17.05	62.69	20.26	16.51	63.28	20.21
	SUCHOHRAD	21.22	60.15	18.63	21.54	60.68	17.77	22.16	58.69	19.15	21.59	58.72	19.69
	VELKÉ LEVÁRE	21.04	60.60	18.37	20.84	60.69	18.46	20.19	60.66	19.14	19.68	61.14	19.18
	VYSOKÁ PRI MORAVE	18.61	61.11	20.28	17.13	62.67	20.20	16.55	63.61	19.85	15.67	64.27	20.07
	ZÁHORIE (military area)	*22.85*	*72.85*	*4.30*	*21.35*	*73.85*	*4.81*	*19.03*	*75.73*	*5.24*	*16.83*	*77.18*	*6.00*
	ZÁHORSKÁ VES	19.42	56.75	23.83	18.69	56.94	24.37	18.44	57.99	23.57	18.24	57.41	24.34
	ZÁVOD	20.94	61.78	17.29	20.49	62.42	17.09	20.06	63.34	16.60	19.42	64.31	16.27
	ZOHOR	18.50	62.56	18.93	18.12	63.96	17.92	17.81	64.01	18.18	16.98	64.75	18.28
	SUBTOTAL	20.53	61.80	17.67	19.76	62.42	17.82	19.16	63.55	17.29	18.44	63.73	17.89
	BRATISLAVA IV												
	DEVÍNSKA NOVÁ VES	31.50	61.35	7.15	30.21	62.56	7.23	28.88	63.74	7.37	27.44	64.95	7.61
	LAMAC	13.90	66.34	19.76	13.55	65.96	20.49	13.13	65.65	21.21	12.79	65.08	22.14
	ZÁHORSKÁ BYSTRICA	14.43	56.86	28.70	14.73	57.15	28.12	14.56	57.86	27.59	15.06	58.29	26.65
	SUBTOTAL	25.37	62.42	12.21	24.50	63.10	12.40	23.52	63.83	12.65	22.52	64.48	13.01
TRNAVA REGION	**SENICA**												
	BORSKÝ SVÄTÝ JUR	20.09	56.21	23.70	19.75	57.1244	23.12	19.64	56.47	23.89	19.48	56.61	23.91
	MORAVSKÝ SVÄTÝ JÁN	19.79	61.72	18.49	20.30	61.5	18.20	19.32	63.07	17.61	18.86	64.07	17.07
	PLAVECKÝ PETER	21.24	61.65	17.12	21.55	61.8605	16.59	21.16	61.91	16.93	21.12	61.96	16.93
	SEKULE	22.82	57.23	19.95	22.14	58.2004	19.66	21.51	58.88	19.61	21.71	58.67	19.62
	SUBTOTAL	20.86	59.00	20.14	20.80	59.47	19.74	20.21	60.02	19.77	20.06	60.34	19.61
	GRAND TOTAL	21.86	61.74	16.40	21.12	62.43	16.45	20.46	63.24	16.30	20.17	63.35	16.48
	SLOVAKIA	21.70	60.70	17.60	21.00	61.20	17.70	20.40	61.81	17.80	19.08	62.30	17.90

Source: Statistical Office of the Slovak Republic

Where:

1-Pre-productive age

2-Productive age

3-Post-productive age

Table B.2.6 Changes in Age Structure

	District:	Population	Mean age		Ageing index			
	MALACKY	**1996**	**1991**	**1999**	**1996**	**1997**	**1998**	**1999**
BRATISLAVA REGION	BORINKA	420	42.9	44.4	226.6	260.7	247.4	252.8
	GAJARY	2,500	35.8	36.5	100.2	101.4	99.0	99.8
	JABLONOVE	1,044	36.0	36.8	99.1	100.0	100.9	101.0
	JAKUBOV	1,299	33.8	35.9	98.4	102.1	103.9	101.7
	KOSTOLISTE	880	34.9	37.4	107.4	106.9	113.6	124.1
	KUCHYNA	1,560	35.6	38.0	118.0	120.5	121.4	124.8
	LAB	1,345	36.2	38.3	117.2	120.2	127.5	132.8
	LOZORNO	2,551	35.8	36.6	99.4	100.2	100.6	101.0
	MALACKY (town)	18,090	31.4	34.4	62.1	66.0	69.4	74.9
	MALE LEVARE	982	N/A	36.4	101.9	100.5	97.6	98.5
	MARIANKA	915	39.9	40.8	172.6	168.7	168.0	167.8
	PERNEK	740	37.7	39.5	152.1	153.9	143.3	145.4
	PLAVECKE PODHRADIE	686	N/A	37.3	123.0	131.0	128.1	121.1
	PLAVECKY MIKULAS	709	N/A	38.6	125.9	128.9	131.3	131.6
	PLAVECKY STVRTOK	1,940	34.0	36.8	110.6	109.8	107.4	117.1
	ROHOZNIK	3,379	N/A	30.5	27.8	29.6	31.5	34.4
	SOLOSNICA	1,450	N/A	37.7	99.3	109.0	110.7	117.6
	STUDIENKA	1,527	N/A	37.5	106.1	114.2	121.1	120.9
	STUPAVA (town)	7,819	35.3	37.8	106.4	114.6	118.8	122.4
	SUCHOHRAD	542	36.5	35.5	87.8	82.5	86.4	91.2
	VELKE LEVARE	3,223	N/A	35.6	87.3	88.6	94.8	97.4
	VYSOKA PRI MORAVE	1,800	36.8	37.7	109.0	117.9	119.9	128.1
	ZAHORIE	*512*	*25.7*	*32.4*	*18.8*	*22.5*	*27.6*	*35.6*
	ZAHORSKA VES	1,473	37.0	39.1	122.7	130.4	127.8	133.5
	ZAVOD	2,522	N/A	34.8	82.6	83.4	82.7	83.8
	ZOHOR	3,021	35.4	36.8	102.3	98.9	102.1	107.7
	SUBTOTAL	60,429			2,664	2,761	2,784	2,867
	BRATISLAVA IV							
	DEVINSKA NOVA VES	1,843	42.4	35.0	80.6	77.0	80.0	80.2
	LAMAC	7,186	37.0	36.4	93.4	89.7	91.2	90.5
	ZAHORSKA BYSTRICA	16,738	25.6	38.2	117.9	117.0	121.6	122.7
	SUBTOTAL	25,767			292	284	293	293
TRNAVA REGION	**SENICA**							
	BORSKY SVATY JUR	1,478	N/A	41.0	142.1	151.2	161.5	173.1
	MORAVSKY SVATY JAN	2,324	N/A	41.3	198.9	190.9	189.5	177.0
	PLAVECKY PETER	3,922	N/A	30.5	22.7	23.9	25.5	27.7
	SEKULE	3,972	N/A	35.5	87.4	88.8	91.1	90.4
	SUBTOTAL	11,696			451	455	468	468
	GRAND TOTAL	97,892			3407	3500	3544	3628

Source: Statistical Office of the Slovak Republic
Notes: N/A - Data not available
Population as of Dec. 31. 1991

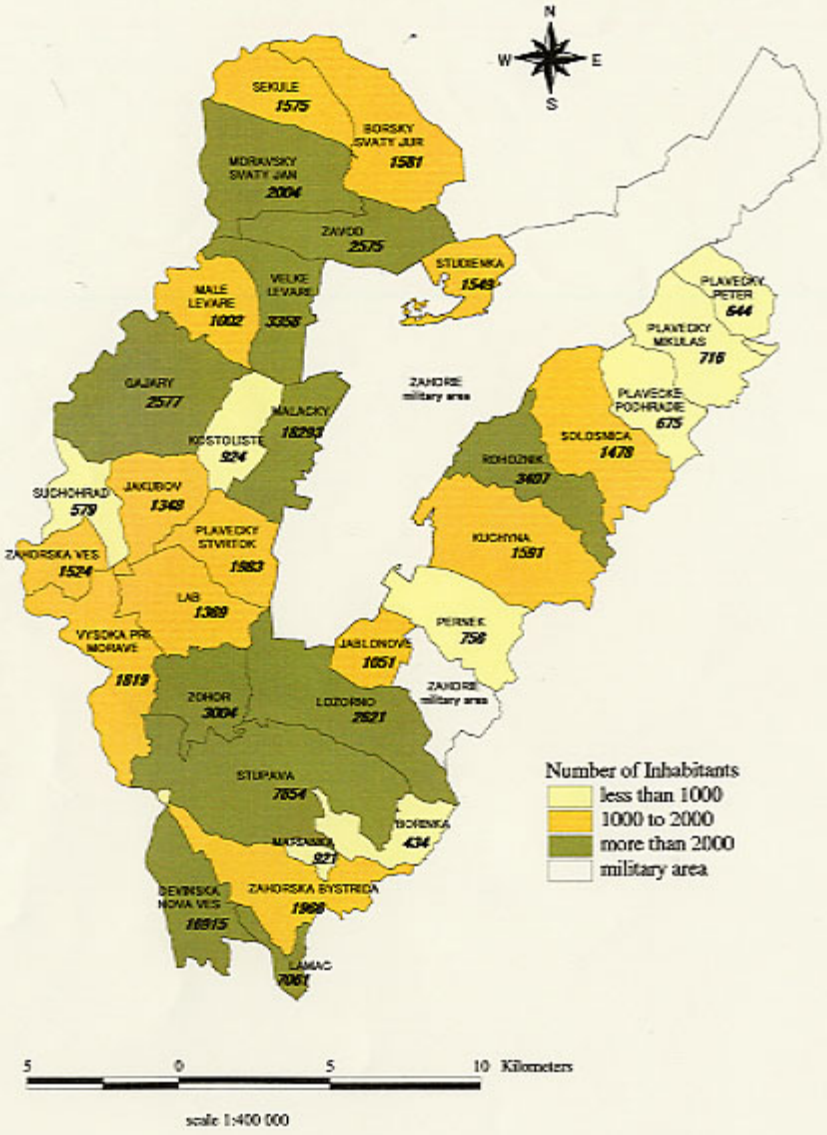

Figure B.2.1. Map of Population Distribution in the Study Area (1999)
source: Statistical Office

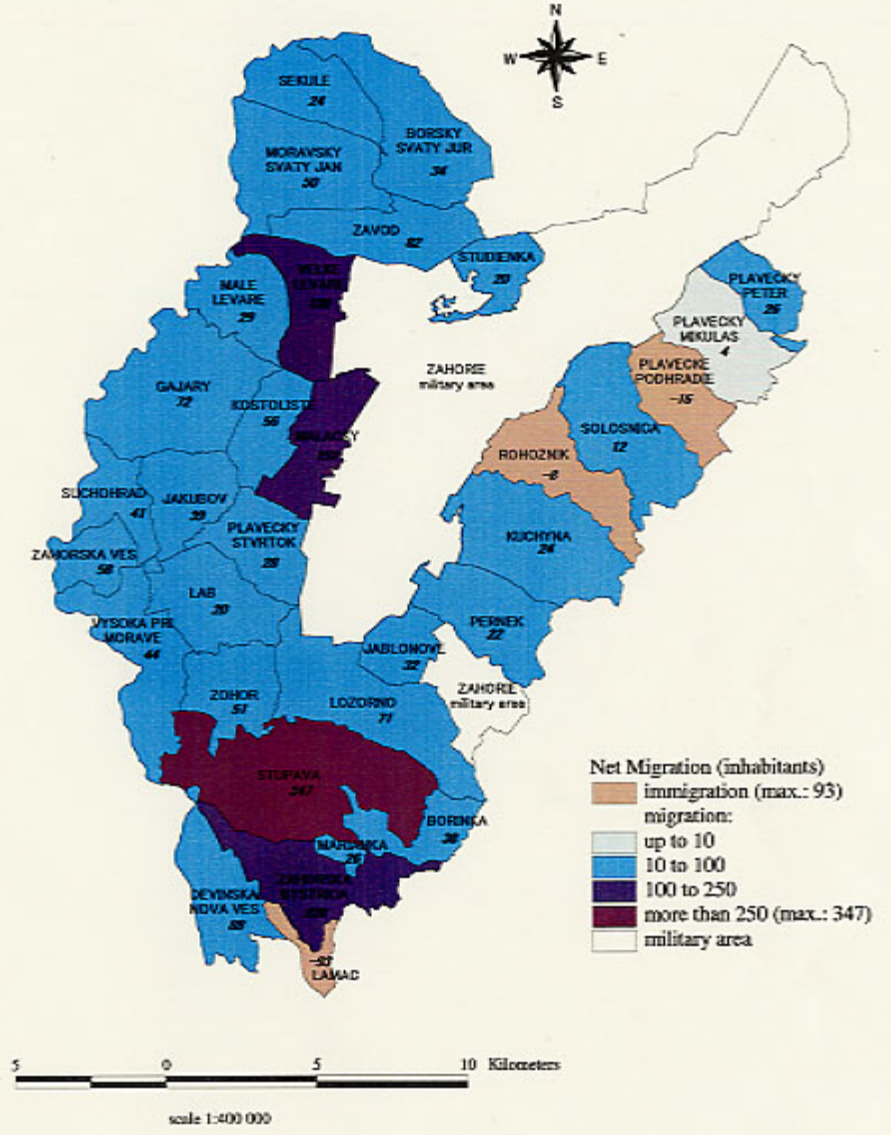

Figure B.2.2. Map of Net Migration Distribution in the Study Area (sum of 1996 to 1999)
source: Statistical Office

Year	1980	1985	1990	1993	1994	1995	1996	1997	1998	1999
Total	381,186	417,088	444,660	448,785	450,776	452,053	452,288	451,395	449,547	448,292

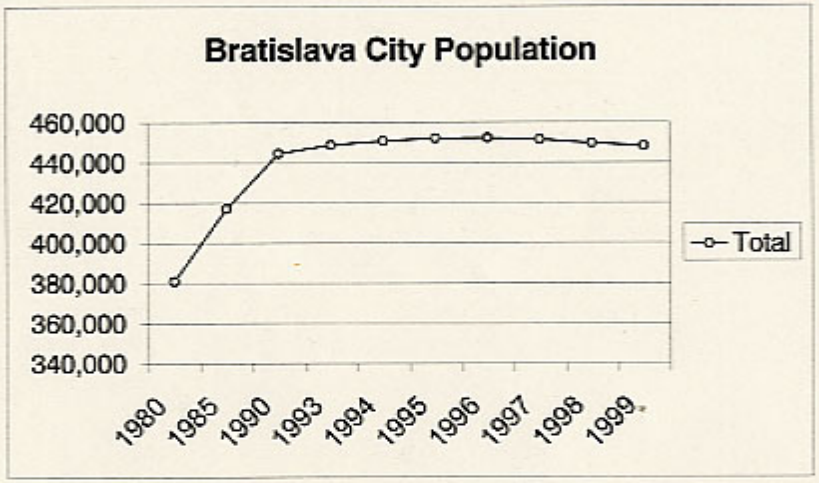

Figure B.2.3 Change of Bratislava city population

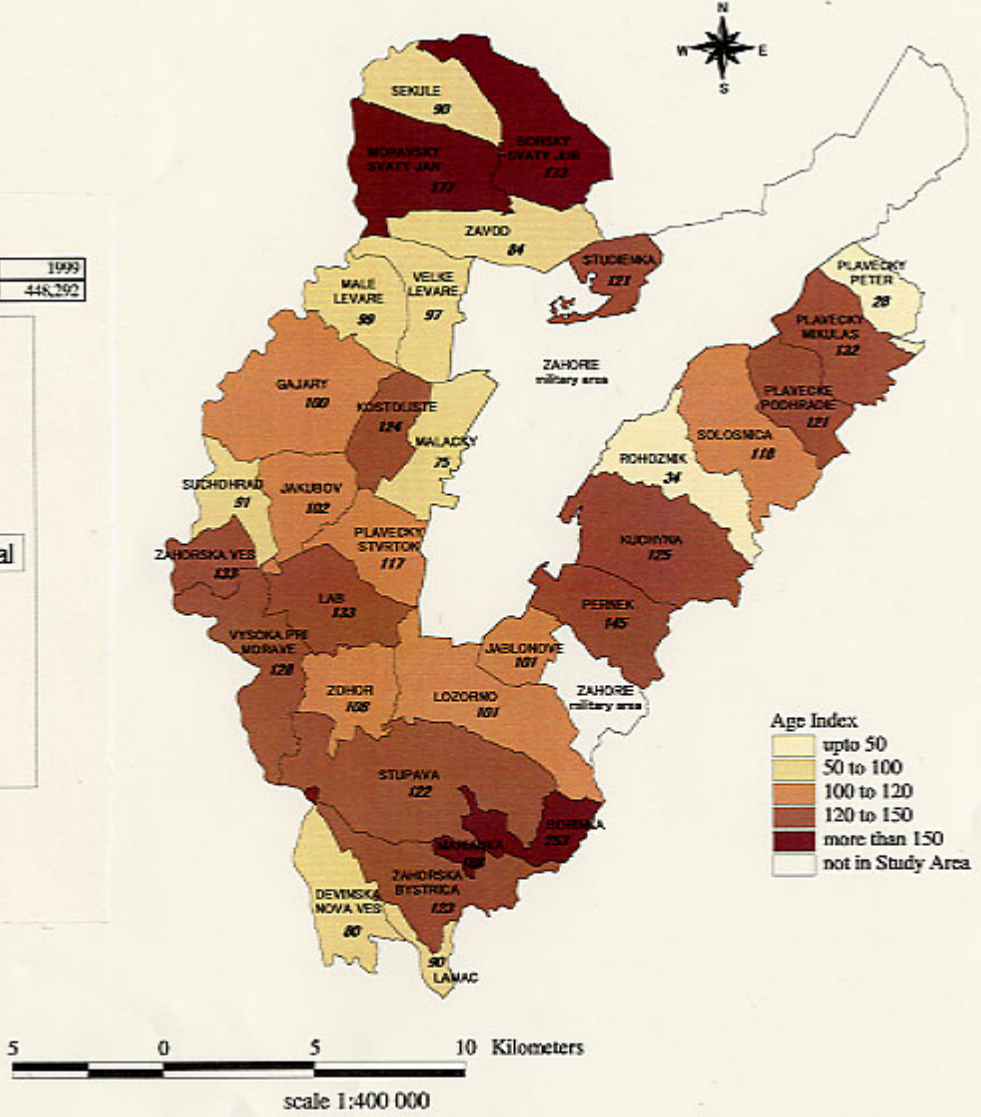

Figure B.2.4. Map of Age Index Distribution in the Study Area (1999)

source: Statistical Office

ANNEX B.3

TOPOGRAPHY AND GEOLOGY

B.3 TOPOGRAPHY AND GEOLOGY

The Zahorska Lowland represents the eastern part of the Vienna Basin from the point of view of topography and geology. This area is enclosed by the Male Karpaty Mountains in the East and by the Myjava River in the North.

The basic relief of the Vienna Basin was formed by tectonic elevation of the Male Karpaty mountain block until the beginning of the Tertiary. The enclosed basin had been filled by the Tertiary deposits that originated from the upper leaches. Later deposits of the Tertiary are represented by the Panon and the Pont which outcrops on the Gajary-Sastin elevation and on the Lab-Laksarska Horst. The Panon is composed of lagoon deposits, some kinds of clays and sands, including coal clay with lignite and chalk clay. The Pont represents the lake deposits, composed of clays, sands and gravels with lignite. The bottom between the foot of the Male Karpaty and the central plateau is covered by the Quaternary sediments represented by alluvial and pre-glacial fan deposits. The fan deposits formed a fan-shaped narrow surface, and sink westward under the complex with the wind blown sands.

The central part of the Lowland is occupied by the characteristic plateau, which had been intensively dissected, leaving smooth scattered mounds, and is partly covered by the wind blown sands. The eolithic activity in this area, movement of the wind blown sands, had started in the old Pleistocene. Investigations also proved that the eolithic activity lasted until the recent ages and the buried layer of the wind blown sands are filling the Solosnicka, Perneck and other depressions.

Fluvial activities by the present rivers are demonstrated mostly in the western parts of the lowland through repeated dissection, erosion and sedimentation. On the moderately assented territory of the lowland, the Pleistocene terraces of Morava are preserved. Their sediments have usually a small thickness and characterize the parent materials of the soils on the terrace.

The Quaternary tectonic activity in this area is presented by two kinds of movement, a) onward syn-depositional movement in the depression of Solosnica, Perneck, Zohor-Marcheg, Kuty and Lamac-Stupava, and b) secondary vertical heave faults in mainly in river terrace that have conditioned the rate of erosion and morphological features of the area.

The tectonic movements in this area, described above, have resulted in the present topography and geological characteristics of the coverages on which farmland soils have developed. Deep coverage of sands in the Tertiary all over the area, deposits of the wind blown sands by eolithic activity, small thickness of the Fluvial sediments on the terraces, all of these are the final consequent results given to the Zahorska Lowland.

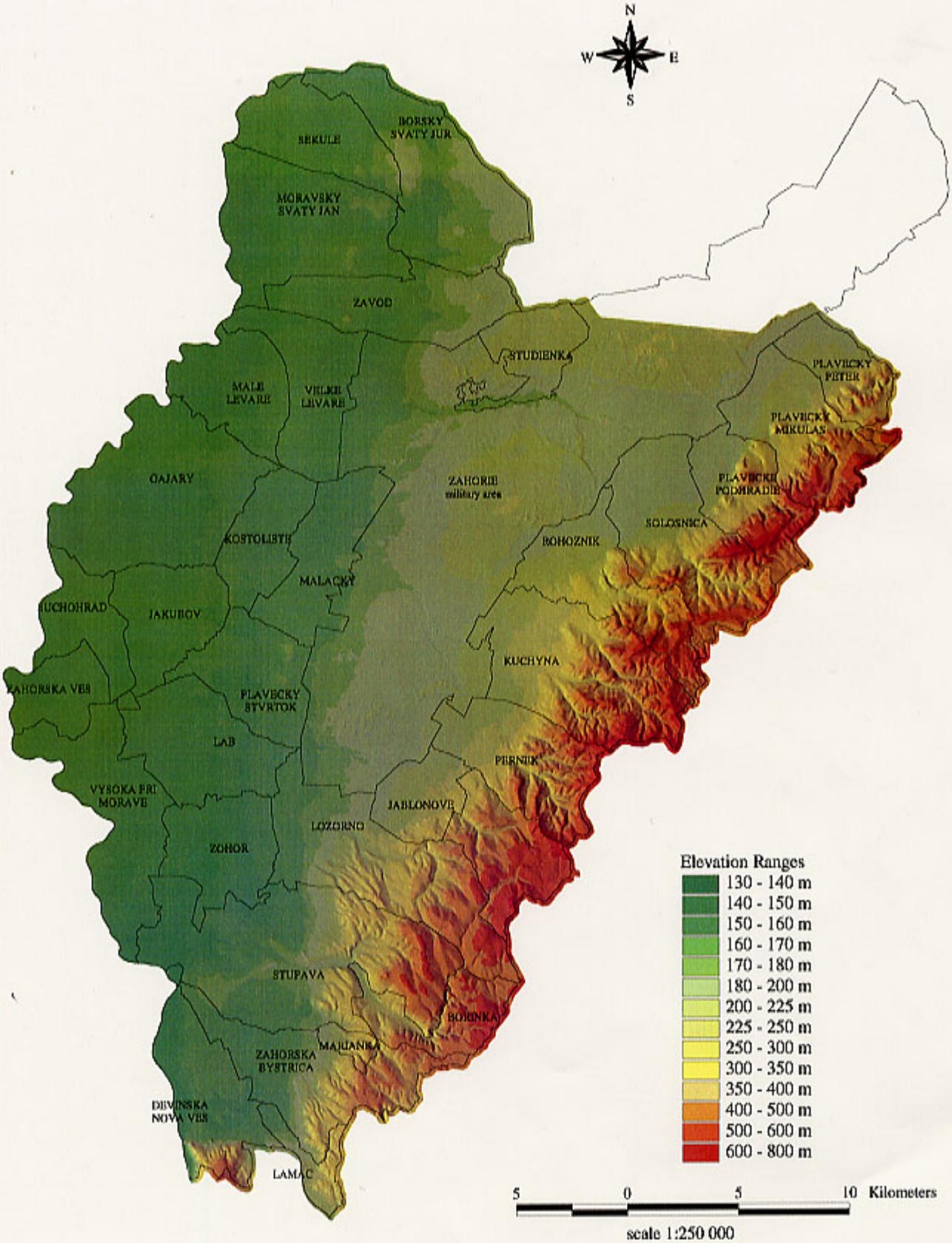

Figure B.3.1 Raster Model of Relief (10m x 10m)

source: Study Team

ANNEX B.4

ECONOMIC AND INDUSTRIAL STRUCTURE OF THE STUDY AREA

B.4 ECONOMIC AND INDUSTRIAL STRUCTURE OF THE STUDY AREA

B.4.1 MALACKY DISTRICT

(1) Industries

Industries have a long tradition in the district of Malacky. The major industries are machinery engineering, electrical, chemical, textile and building materials. The economic and industrial base of the district is mainly mineral resources and beds. In the area of Rohoznik, Pernek and Borinika, the bed of limestone is found and it is used as a building stone as well as raw material for cement production. In and around the area of Gajary, Jakubor, Suchohrad, Studienka, Zavod municipalities smaller beds of gas and oil are found. Wood processing (pine woods) for furniture manufacturing is also a significant activity in the district. According to the resent statistics, there are 4,334 business subjects in the district.

An industrial park is being planned in the district and it is expected to play a significant role for the industrial development of the district. (Annex B.8.6) Activities of agricultural enterprises are also significant. Cereals as well as vegetables are produced and processed here. The cultivation of asparagus started recently for export purposes. Tourism also is an important sector in the district. The area of Zahorska Lowland is popular for walking and there is a course for bicycling next to the river of Morava. There are spots for hunting, fishing, and horse-riding in Zahoraska, Bystrica and Lozorno. Overnight stays of foreigners in the district was 3.5 days on average.

(2) Employment and Occupation

The number of economically active people and the rate of unemployment are illustrated in Table B.4.1. In the whole district the number of economically active people was 32,595 and among them 4,728 persons were registered as unemployed (and were employable) that corresponds to 14.5% of the economically active population are unemployed. This figure is slightly lower than the average for the whole country that is estimated at 16.2 %. The rate of unemployment shows a great difference between municipalities. The rate of unemployment was highest in Zahorska Ves where more than 31% of the economically active population was unemployed, followed by Plavecky Stvrtok (29.7%), Gajary 28.3%, Velke Levare 23.2%. The lowest unemployment rate was recorded at Borinka 5.9% and Marianka 7.5% respectively. Due to the proximity to Bratislava about 56% of the workforce from Stupava and 32.3% from Malacky municipality commute to Bratislava. Other small numbers of workers found jobs in neighboring Austria, or other towns.

Table B.4.2 shows the sector wise average monthly salary and hours worked per employee. Concerning the agriculture sector the salary was less than the average of all sectors while they worked more than the other sector.

B.4.2 BRATISLAVA IV DISTRICT

(1) Industries

There are 3 villages under the Study Area in the district of Bratislava IV (Zahoraska Bystrica, Devinska Nova Ves and Lamac). Owing to the proximity of the capital city of Bratislava, there are a lot of important institutions and foreign companies. The Region of Bratislava is a fast developing Region in the Country. There are several significant industries in the district such as chemical and rubber industries, engineering and food industries, printing, glass and building material industries and development projects are expected to be carried out to enhance, volume, quality and competitiveness of the industries. In the whole Region there were 18,064 profit-oriented corporations, 47.6% in trade followed by 26.3% in real estate etc. The characteristics of the industrial structure in the Region is the dominant position of engineering, chemical and food industries. In the agricultural sector, there is a declining trend because of the recent transformation of economic and trade conditions. The items most in decline are fruits, vegetables and livestock production.

As of June 1999, there were 10,418 entrepreneurial subjects registered in Bratislava IV district of which more than 8,000 were private individuals and more than 200 were legal entities. About 42 % were active in trade, 40% in services and in production activities respectively. Tourism is also a significant sector in the economic development of the district of Bratislava IV. Overnight stay of foreigners in the Region was highest in the district of Bratislava IV district (6 days) and the lowest in Bratislava II district (1.9 days).

(2) Employment and Occupation

In the whole Region the highest share of employment (1998) had transport, post and telecommunication (22.2%) followed by industries (20.4%), public administration, defense, social security (9.5%), education (7.4%) etc. According to the recent statistics (2000), the unemployment rate was quite low 6.3% (which was 7.2 % in the year of 1999) compared with the national average that stands at 16.2% (1999). The figures are illustrated in Table B.4.3. The highest average monthly wages were recorded as highest in the district of Bratislava IV at 17,103 SKK (national average in 1999 was 10,729 SKK). The only district in Bratislava Region with an increase of population is the district of Bratislava IV. According to the document (Monitoring Socio – Economic Situation in Bratislava IV District, 1999), in 1998, population in productive age population was 64% and the rate of unemployment was lowest at about 3%.

B.4.3 SENICA DISTRICT

(1) Industries

Several natural resources are found in Senica district, such as woods, oil, earth gas, mineral water, lignite etc. About 21,000ha of land is covered by forest, however wood subsistence is processed only at

primary level and is exported to other districts for further processing. Lignite is mined in Zahorie Caiymine and is used in hot power stations. Sands from Zahorska Lowland are used for melting and glass purposes and also are in high demand for building materials. The spa located at the village of Smardaky is used for healing purposes and has become an attraction for foreign tourists.

(2) Employment and Occupation

The situation of unemployment as of December 2000 is shown in Table B.4.4. As shown in the Table the rate of unemployment is high at 16.2% and more than 40% of unemployed persons are unemployed for more than one year. The majority of the unemployed were from the age group of 16 to 24 years (34.2%). Severe unemployment existed in the villages of Kuklov, Sastin, Straze and Lakarska Nova Ves (Monitoring of Economic and Social Situation in Senica District, April, 2001).

The sector wise distribution of employed people is illustrated in Table B.4.5. More than 40% of the population have employment in industries (mining, food processing, tobacco, electricity, gas etc.) followed by agriculture, hunting, forest management, fishing, fish breeding (15.7%), service for the society as a whole (12.6%), whole sale and retail trade (11.5%) and the remainder are employed in sectors such as traffic, post office, telecommunication, construction, public administration etc.

Table B.4.1 Economically Active Persons and the Rate of Unemployment in Malacky District

Municipality	No. of Economically Active Population	Number of Registered Unemployed Persons			Percent to Economically Active Population
		Men	Women	Total	
1 Borinka	222	7	6	13	5.9
2 Gajary	1,137	176	146	322	28.3
3 Jablooove	489	41	30	71	14.5
4 Jakubov	642	65	68	133	20.7
5 Kostoliste	379	41	39	80	21.1
6 Kuchyna	755	62	64	126	16.7
7 Lab	631	41	34	75	11.9
8 Lozorno	1,268	84	90	174	13.7
9 Malacky	9,736	614	689	1303	13.4
10 Male Levare	449	46	49	95	21.2
11 Marianka	440	22	11	33	7.5
12 Pernek	340	30	27	57	16.8
13 Plavecke Podhradie	320	13	27	40	12.5
14 Plavecky Mikulas	305	16	28	44	14.4
15 Plavecky Stvrtok	841	130	120	250	29.7
16 Rohoznik	1,508	122	144	266	17.6
17 Solosica	697	41	61	102	14.6
18 Studienka	688	46	52	98	14.2
19 Stupava	3,904	188	198	386	9.9
20 Suchohrad	237	18	16	34	14.3
21 Velke Levare	1,576	184	182	366	23.2
22 Military District Zaho	291	14	24	38	13.1
23 Vysoka Pri Morave	874	86	90	176	20.1
24 Zahorska' Ves	597	105	83	188	31.5
25 Zavod	1,242	104	104	208	16.7
26 Zohor	1,525	109	121	230	15.1
Total Economically Active Population in the District	Disposable Number	Unemployment Rate(%)			
32,595	4,728	14.5			

Source: Malacky District Office (July, 1999)

Table B.4.2 Occupation and Income in Malacky District

Sector of Economic Activities	Average No. of Registered Employees (Year 1998)	Average Monthly Salary (in SKK) (Year 1998)	Index Sector Together=100	Hours worked per 1 employee (Annual)	
Sectors together	7,503	10,385	100.0	1,844	100.0
Including					
Agricultural, Hunting, Forestry, Fishing	1,266	10,050	96.8	1,954	106.0
Industry together Including	3,098	11,722	112.9	1,777	96.4
Industry Production	2,677	11,459	110.3	1,778	96.4
Building	291	9,679	93.2	1,738	94.3
Wholesale and Retailsale, motor vehicles and consumption goods fixing	109	13,388	128.9	1,908	103.5
Real Estates, renting and trade services research	122	15,220	146.6	1,946	105.5
Public administration and defense compulsory social security	432	11,543	111.2	1,858	100.8
Education	1,032	8,150	78.5	1,889	102.4
Health institutions and social services	884	8,098	78.0	1,876	101.7
Other public, social and personal services	249	7,384	71.1	1,821	98.8

Source: Malacky District Office,

Table B.4.3 Rate of Unemployment in Bratislava Region

Contents	1999	2000
Registered unemployed persons		
Male	12,304	10,891
Female	12,818	11,990
Total	25,122	22,881
Rate of unemployment		
Male	7.05	6.03
Female	7.26	6.7
Total	7.15	6.36
Average monthly nominal earnin	14,133	15,451

Source: Analysis of the Social and Economic Situation and the Development of the Region of Bratislava, June, 2001

Table B.4.4 Rate of Unemployment in Senica District

(Dec. 2000)

Number of Unemployed (Persons)	5,314
Rate of Unemployment	16.18%

Period of Unemployment

Period	Number	Percent
Less than 6 months	1,926	36.2
7 months to 1 year	1,105	20.8
More than 1 year	2,283	43.0
Total	5,314	100.0

Age Structure

Age	Number	Percent
16 - 24	1,819	34.2
25 - 34	1,177	22.1
35 - 44	1,131	21.3
45 and over	1,187	22.3
Total	5,314	100.0

Source: Monitoring of Economic and Social Situation in Senica District Senica District, April, 2001

Table B4.5 Sectorwise No. of Employees and Average Monthly Salary in Senica

Sector	Number	Percent to Total	Average Monthly Salary
Agriculture, Hunting, Forest Management Fishing, Fish Breeding	1,594	15.7	9,389
Industries (Mining, Food Processing, Tobacco, Electricity, Gas etc.)	4,119	40.5	11,094
Building (Construction)	470	4.6	9,093
Wholesale and Retail Trade etc.	1,170	11.5	11,351
Hotel and Restaurants	114	1.1	8,559
Traffic, Storage, Post Office and Tele-communication	456	4.5	10,594
Estates, Retail Services, Research and Development	185	1.8	11,897
Public Administration, Compulsory Social Service	420	4.1	11,711
Service for the Society as a whole	1,283	12.6	87,955
Other Public, Social and Personal Services	347	3.4	8,879
Total/Average	10,158	100.0	10,243

Source: Monitoring of Economic and Social Situation in Senica District Senica District, April, 2001

ANNEX B.5

INFRASTRUCTURES

B.5 INFRASTRUCTURES

B.5.1 TRANSPORTATION AND ROAD NETWORK

The Study Area is recognized as having well developed road network and traffic access through the year. The development level of the road network is higher than that for whole country. The road and railway network are shown in Figure B.5.1. The Motor Highway Route D2, so called E65 in the European road numbering, which connects Bratislava and the Czech Republic passing Burno to Prague, runs through the center part of the Study Area from south to north and it forms the backbone of the Area. The Route D2 provides an extremely good access to the center of Bratislava Town, 6 km from Lamac that is the southern boundary of the Area, 23 km from Lozorno, 35 km from Malacky that is the center of the Area, and 69 km from Kuty that is the northern boundary of the Area.

Connecting with Route D2 and Route 2 which is a regular road goes under Route D2, the Main Road 501 provides a traffic access to the foothill zone of the Male Karpaty Mountains running from Lozorno to Myjava Town passing Jablonica, and the Main Road 503 crosses the center part of the Area from the east to west passing Zahorska Ves, Malacky and Pernek. Furthermore, several secondary roads are developed to provide access all over the Study Area.

Due to the well developed road networks, the Area has an advantage for transportation to Bratislava and it forms a significant character in the topography. This gives the Area an advantage with access to international markets for products, such as Vienna in Austria (50 km from Bratislava), Budapest in Hungary (190 km), Brno (130 km) and Prague (365 km) in the Czech Republic, etc., in addition to the largest domestic market, Bratislava.

B.5.2 OTHER INFRASTRUCTURE CONDITIONS OF THE STUDY AREA

The conditions of infrastructure development in the Study Area, such as a local communication road, water supply and sewage network are summarized in Table B.5.1.

The density of communications varies from 0.129 km/km^2 to 2.079 km/km^2 depends on the scale, land use and geomorphology of villages/towns. Most of the villages and towns in the Study Area have a high ratio of paving of local communication roads that is more than 80 %, while a low paving ratio is found in some villages, i.e., Borsky Svaty Jur (62.8%), Pernek (58.8%), Plavecke Podhradie (58.2%) and Verke Levare (65.7%).
The part of Bratislava IV District and the Malacky District forming the Study Area has a high ratio of inhabitants receiving a public water supply line. The ratio of inhabitants connected to the public sewage network varies widely and it depends on the size of town and population.

Table B.5.1 Summary of Local Communications, Water Supply and Sewage Network in the Study Area

Item	Local Communication Roads			Water Supply			Sewage Network	
					Amount of consumption			
	Total length (km)	Density of Communications (km/km^2)	Rate of paved road (%)	Ratio of inhabitants supplied by public water supply line (%)	Total (m^3)	Out of for households (m^3)	Length of sewage network (km)	Ratio of inhabitants connected to public sewage network (%)
Senica District	**318.2**	**0.465**	**79.4%**	**79.7%**	**3,095,000**	**1,582,500**	**50.7**	**34.3%**
out of in the Study Area	**32.4**	**0.277**	**79.3%**	**33.3%**	**52,400**	**42,000**	**0**	**0.0%**
Borsky Svaty Jur	14.8	0.373	62.8%	0%	0	0	0	0.0%
Moravsky SvatyJan	7.4	0.501	95.9%	40.4%	17,400	14,000	0	0.0%
Plavecky Peter	3	0.129	100.0%	113.5%	25,100	19,500	0	0.0%
Sekle	7.2	0.184	87.5%	25.0%	9,900	8,500	0	0.0%
Malacky District	**262.6**	**0.396**	**90.9%**	**77.4%**	**3,842,346**	**2,754,451**	**57.8**	**31.8%**
Borinka	2.5	0.158	100.0%	92.5%	51,800	51,000	6.0	95.7%
Gajary	9.3	0.183	100.0%	-	-	-	-	-
Jablonove	5.2	0.393	100.0%	-	-	-	-	-
Jakubov	4.6	0.221	100.0%	52.1%	.	.	-	-
Kostoliste	3.3	0.196	100.0%	90.3%	64,900	38,900	-	-
Kuchyna	8.1	0.181	100.0%	93.5%	53,700	50,600	-	-
Lab	8.4	0.302	85.7%	.	62,900	58,500	-	-
Lozorno	13.2	0.298	96.2%	.	70,340	60,395	7.3	36.2%
Malacky	43.2	1.862	91.4%	93.3%	1,690,000	1,162,400	23.9	62.0%
Male Levare	7.7	0.354	98.7%	-	-	-	-	-
Marianka	6.7	2.079	100.0%	.	.	.	-	-
Pernek	5.1	0.184	58.8%	-	-	-	-	-
Plavecke Podhradie	9.8	0.463	58.2%	36.4%	33,900	22,100	-	-
Plavecky Mikulas	6.0	0.225	96.7%	.	66,500	55,600	-	-
Plavecky Stvrtok	9.9	0.441	100.0%	98.1%	112,600	93,200	4.3	38.8%
Rohoznik	17.0	0.619	76.5%	80.7%	363,900	177,300	3.5	43.7%
Solosnica	7.3	0.193	95.9%	95.0%	90,200	74,000	-	-
Studienka	11.5	0.736	87.0%	44.0%	27,200	23,300	-	-
Stupava	20.4	0.304	100.0%	88.3%	456,606	399,656	9.5	61.2%
Suchohrad	8.0	0.519	100.0%	80.6%	28,500	27,100	-	-
Velke Levare	17.8	0.742	65.7%	90.3%	274,900	140,900	0.3	4.5%
Vysoka pri Morave	7.0	0.208	100.0%	83.4%	82,100	58,300	3.0	19.4%
Zahorska Ves	9.0	0.689	100.0%	66.4%	76,400	61,900	-	-
Zavod	7.6	0.278	100.0%	30.7%	62,000	43,000	-	-
Zohor	14.0	0.663	100.0%	94.0%	173,900	156,300	-	-
Sum of Bratoslava I-V	**430.8**	**1.172**	**71.1%**	**99.0%**	**51,383,000**	**29,292,600**	**756**	**97.5%**
Bratoslava IV District	**86.6**	**0.896**	**85.0%**	-	-	-	-	-
Out of in the Study Area	**26.4**	**0.419**	**100.0%**	-	-	-	-	-
Deveinska Nova Ves	13	0.537	100.0%	-	-	-	-	-
Lanac	8.8	0.273	100.0%	-	-	-	_	_
Zahorska Bystrica	4.6	0.703	100.0%	-	-	-	_	_

Source: Regional Statistics- Malcky District of 1998, Regional Statistics-Bratislava I-V of 1998, Regional Statistics -Senica District of 1999

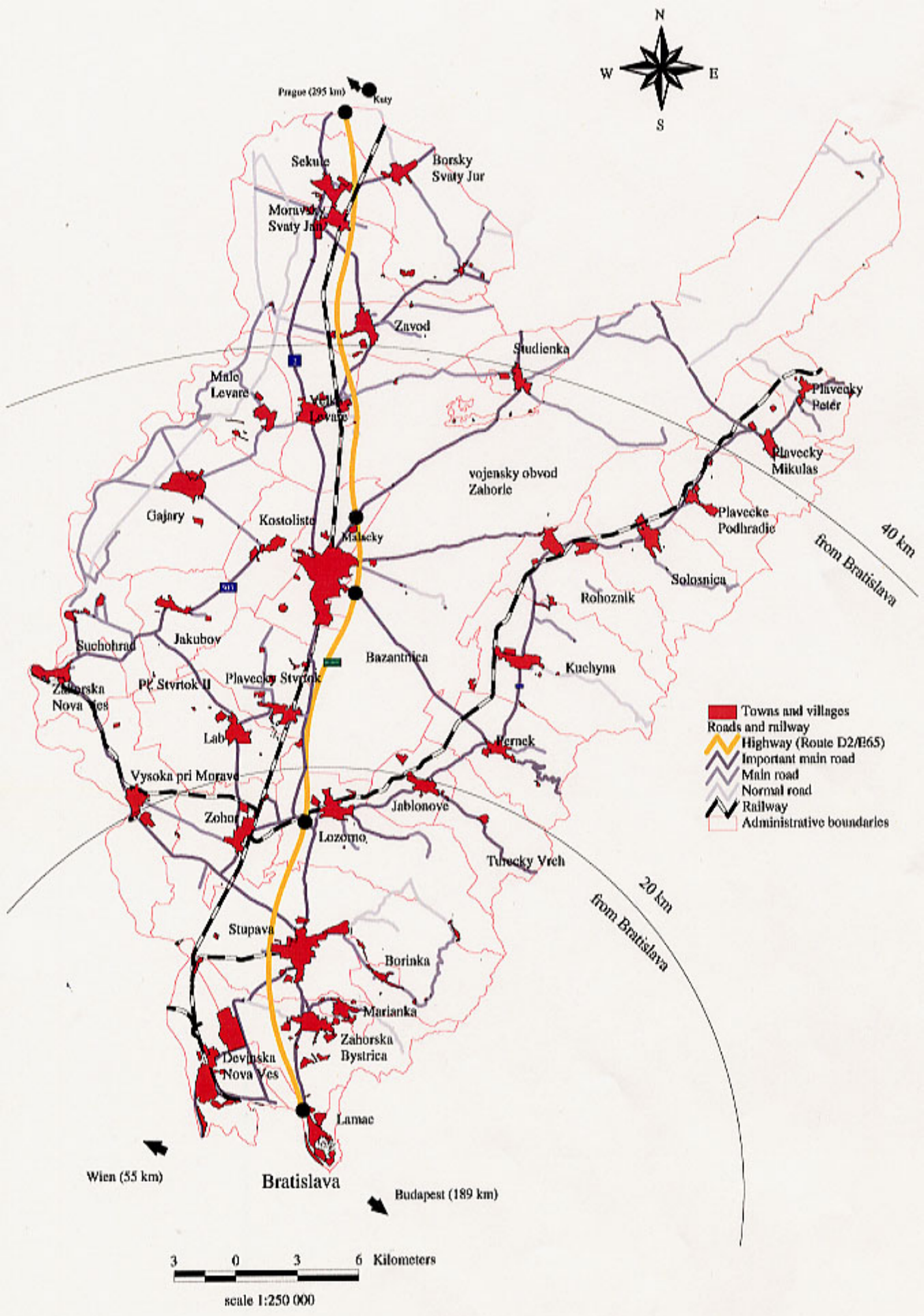

Fig. B.5.1 Road and Railway Network Map