





Regional Accessibility Study of Eastern Slovakia

Kosice Self-Governing Region Presov Self-Governing Region

www.viaregiaplus.eu

### Regional Accessibility Study of Eastern Slovakia

Kosice Self-Governing Region Presov Self-Governing Region

#### TITLE **Regional Accessibility Study of Eastern Slovakia** Kosice Self-Governing Region, Presov Self-Governing Region

Ровстянер ву Agentúra na podporu regionálneho rozvoja Košice, n. o.

A U T H O R Mgr. Ján Dzurdženík Mgr. Nataša Matulayová Ing. Ladislav Olexa, PhD. Ing. Štefan Škoda Ing. Viera Štupáková Ing. Zuzana Záborská Ing. Jaroslav Tešliar, CSc.

Graphic design Svetozár Šomšák

#### INFORMATION ABOUT THE CENTRAL EUROPE PROGRAMME

CENTRAL EUROPE IS A EUROPEAN UNION PROGRAMME THAT ENCOURAGES COOPERATION AMONG THE COUNTRIES OF CENTRAL EUROPE TO IMPROVE INNOVATION, ACCESSIBILITY AND THE ENVIRONMENT AND TO ENHANCE THE COMPETITIVENESS AND ATTRACTIVENESS OF THEIR CITIES AND REGIONS. CENTRAL EUROPE INVESTS 231 MILLION EUR TO PROVIDE FUNDING TO TRANSNATIONAL COOPERATION PROJECTS INVOLVING PUBLIC AND PRIVATE ORGANISATIONS FROM AUSTRIA, THE CZECH REPUBLIC, GERMANY, HUNGARY, ITALY, POLAND, THE SLOVAK REPUBLIC AND SLOVENIA. THE PROGRAMME IS FINANCED BY THE EUROPEAN REGIONAL DEVELOPMENT FUND (ERDF) AND IT RUNS FROM 2007 TO 2013. INTERESTED PARTNERSHIPS ARE INVITED TO PROPOSE THEIR PROJECTS FOLLOWING PUBLIC CALLS FOR PROPOSALS, WHICH WILL BE WIDELY PUBLICISED.

### Content

1.	Analysis 4
1.1	The basic Territorial and Administrative
	Characteristics of the Region
1.2	Natural Environment and
	Characteristics of Border Areas
1.3	Cultural and Historical Heritage5
1.4	Transport infrastructure
2.	Synthesis
2.1	Evaluation of Natural Predispositions
	for the Purpose of Tourism
2.2	Evaluation of Transportation
	Infrastructure
3.	Proposals
3.1	Specific Proposals in the Field
	of Road Infrastructure
3.2	Specific Proposals in the Field
	of Railway Infrastructure
3.3	Specific Proposals in the Field
	of Cycling Infrastructure
4.	Conclusion 20

## 1. Analysis

### 1.1 The basic Territorial and Administrative Characteristics of the Region

Eastern Slovakia region occupies about one third (32%) of an overall area of Slovak Republic, where 29 % of total Slovakian population is situated (1.6 million).

Region is bordered with Poland to the north, Ukraine to the east, Hungary to the south and region of Banska Bystrica and Zilina to the west. From an administrative point of view, the region consists of two large territorial units – Presov and Kosice Region.



Košice self governing region	Prešov self governing region
Area 6753 km2 (14% of total area of SR)	Area 8998 km2 (18% of total area of SR)
11 districts (Gelnica District, Košice I, Košice II, Košice IV, Košice–okolie (countryside around Košice), Michalovce District, Rožňava District, Sobrance District, Spišská Nová Ves District, Trebišov District)	13 districts (Prešov District, Sabinov District, Bardejov District, Svidník District, Vranov nad Topľou District, Levoča District, Kežmarok District, Stará Ľubovňa District, Poprad District, Medzilaborce District, Humenné District, Snina District, tropkov District)
440 municipalities (of which 17 are towns)	666 municipalities (of which 23 are towns)
Population 766 000	Population 791 000
The largest town Košice 236 000 inhabitants	The largest town Prešov 92 700 inhabitants

The region of Eastern Slovakia consists of 5 regions: Spis, Saris, Gemer, Abov and Zemplin. Each one of these regions is unique in its own way, yet they still remain their own traditions, customs and folk culture.

#### 1.2 Natural Environment and Characteristics of Border Areas

#### 1.2.1 Geomorphology, Geology and Pedology

**From a geomorphologic point of view, the territory of Eastern Slovakia is rugged and varied.** Mountainous areas, as well as lowland areas are situated within this region. Western and Eastern Carpathians meet here (boundary extends from Lupkovsky Pass, south – west towards to Cergov and across the northern edge of Slanske Mountains, eastward to the Vihorlat Mountains). The most important geological formation of Eastern Slovakia is a flysch band, situated in the northern part of the region. Soils in the eastern region have a very diverse representation, because they have developed as a result of geological processes, so they have inherited basic physical and chemical properties of parent rocks.

#### 1.2.2 Climatic conditions

According to geomorphologic conditions in the Eastern Slovakia, there are 3 climate zones situated here: hot area, slightly warm area and cool area.

#### 1.2.3 Nature and landscape protection

Considering environmental protection, the region of Eastern Slovakia is considered to have the most valuable environment with its fauna and flora. There are several national parks situated in this region: Tatra National Park (TANAP) – which is a biosphere reserve since 1993, National Park of Pieniny (PIENAP), part of this Park is situated in Poland, Poloniny National Park, National Park Slovak Karst, and National Park Slovak Paradise. It is very interesting, that almost all large protected areas have their continuation beyond the state boundary. Typical cross – border national parks include: TANAP, PIENAP (to Poland), POLONINY (Poland, Ukraine) and Slovak Karst (Ukraine).

#### 1.3 Cultural and Historical Heritage

National Park Slovak Karst is listed as a part of the UNESCO World Natural Heritage. Unique karst formations, particularly 13 caves and chasms (Dobsinska Ice Cave), are the main reason for this National Park to be a part of UNESCO World Natural Heritage areas. Tatra National Park, together with its Polish part, belongs to the system of biosphere reservation. In the northeast corner of the Eastern Slovakia, the Biosphere Reservation of Eastern Carpathians and Poloniny is situated. It was established because of its richness and diversity of fauna and flora.

Eastern Region, with its location at the interface of Western and Eastern Carpathians and Pannonian Plain, is a multicultural mixed area, where more than 15 nationalities and ethnic groups find their home. The Richness of the cultural heritage of Eastern Slovakia does not apply only on preserved folk traditions and cultural customs, but it also applies to some of the greatest monuments such as Spis Castle, historic centre of Bardejov and 28 wooden churches scattered along the Ukrainian and Polish borders.

#### 1.4 Transport infrastructure

Eastern Slovakia region has been an intersection of the north – south connection route in the direction from Baltic–Black Sea and east–west connection route, connecting Europe and Asia. North – south link was dominant throughout the centuries in the region of

Eastern Slovakia, until the new geopolitical configuration of Central and South–Eastern Europe created new national borders of east–west direction (formation of Czechoslovakia). New geopolitical arrangement began a construction of east–west transportation network (rail-line Bohumin – Kosice, road network Bratislava – Zilina – Presov – Kosice). The north–south transportation network has been declining and it has lost its importance ever since then.

New economic, social and political environment, which was created by the expansion of European Union by 10 former socialist states, abolished national borders as a barrier and enabled better movement of people, goods and services as well. After decades of restrictions, former north-south transportation route has re-opened again. It has provided a new vision and new dimension in further development for the region of Eastern Slovakia.

#### 1.4.1 Road Infrastructure

According to already existing international routes, as well as what have been said in introduction, we can observe, that some of the major international routes are crossing the Eastern Slovakia region.



International transport corridors crossing the region of Eastern Slovakia (Figure 1 – International roads)

#### In terms of road corridors

#### Corridors - international:

- The original network of European roads "E" (AGR Geneva, 1975) established the network as follows (Figure 2 European road network): major, intermediate, minor
  - **Major European route "A" E50** (D1, I/50, I/68) in following direction: ... starting from the border dividing Presov Region from the Region of Zilina – Poprad – Presov – Kosice – Michalovce – state border of SK/UA...
  - Intermediate European route "A"E71 (I/68) in direction of: Kosice Milhost state border SK/HU Budapest (additional TEN – T 003).

- Intermediate European route "A"E58 / E 571 (I/50) in direction of: starting from the border dividing Region of Banska Bystrica and Kosice Region Roznava Kosice.
- **Minor European route "B" E371** (I/73) in direction of: Presov Svidnik state border SK/PL.
- Part of the Multimodal Central European corridor of V. Network "TINA" crosses the region of Eastern Slovakia: Venice – Koper – Trieste – Ljublana – Budapest – Uzhgorod (Figure 2 – multimodal corridors) as a branch "V.a." (5a) (Figure 2 and figure 1) in direction of: Bratislava – Strba – Poprad – Presov – Kosice – Michalovce – state border SR/UA – Uzhgorod (identical to the "TEM4 and E50 in the region).

FIGURE 2 Multimodal corridors



- Transeuropean network "TEM"(Transeuropean Motorway Rome 1991) consists of 7 sections recognized as "E"roads grouped into TEM 1 and TEM 7. Transit routes within the region are shown in Figure 1:
  - TEM 4 (D1-1/18, 1/50) in direction of: starting from the border dividing Presov Region from the Region of Zilina Poprad Presov Kosice Michalovce state border of SK/UA....
  - TEM 6 (I/50, I/68) in direction of: Košice state border SK/HU
  - TEM 7 (I/18, I/73) in direction of: Prešov state border SK/PL
- United Nations Economic Commission for Europe (UNECE) published a so-called routing of Eastern corridor in May 2008 – "TRANS-EUROPEAN NORTH-SOUTH MOTORWAY (TEM) NETWORK/MAY 2008", by which the importance of "TEM-6 and TEM-7" was highlighted in the terms of transit and accessibility (Figure 3):
  - North direction on the road E371 heading to Multinational Corridor III./European route E40 "A4" in Poland Rzeszów
  - South direction on E71 heading to Multimodal Corridor V. And IV. "M3" in Hungary Miskolc



#### FIGURE 3 Network TEM

#### FIGURE 4 European Road Network



8 Analysis

#### 1.4.1.1 Border Crossings and Their Characteristics

#### International - in EU/Schengen

The construction of border crossings was determined by an approved **"Concept of Development of Transport and Border Crossing Points"** (Ministry of Transport, Communication and Public Services – March 1993), which specifies the goals of the communication structure at the local and regional level, in response to an international transport routes. Conditions, by which the borders were determined to be used, changed rapidly in Eastern Slovakia since the Slovak Republic joined the Schengen Agreement (borders with Poland and Hungary). Today, national borders in terms of movement of population, goods and services, does not exist. They are only used as an administrative tool of dividing the states of EU. The border control might be retrieved if necessary, in order to provide national security in some specific situations.

FIGURE Medzinárodné hraničné prechody v rámci EÚ



State borders in the Schengen area are divided according to technical condition of access roads, or land-transport functions as follows:

#### a) Border crossings for unrestricted travel and commodity traffic

#### Poland

- Present
  - I/73 Vyšný Komárnik Barwinek distant
  - I/67 Tatranská Javorina Lysá Poľana distant
- Planned
  - III/067029 Podspády Jurgow

### b) Border crossings for unlimited travel traffic, but restricted commodity traffic for vehicles (up to 3.5 tons), specific border crossings according to an international agreement up to 7.5 tons

#### Poland

- Present
  - I/68 Mníšek nad Popradom Piwniczna
  - I/77A Čirč Lełuchow (7,5t)
  - II/543 Lysá na Dunajcom Niedzica
  - II/575 Palota Radoszyce (7,5t)
  - II/545 Becherov Konieczna
  - III/544005 Kurov Krynica (Muszynka) (7,5t)

### c) Crossing points for local traffic (will be set up according to the initiative and financial resources of the border regions of neighboring countries)

#### Poland

- Present
  - Červený Kláštor Sromowce Nižne
- Planned
  - II/559 Čertižné Jaśłiska
  - III/557024 Nižná Polianka Oźenna
  - Legnava Miłik
  - Lesnica Sczawnica
  - Malý Lipník Andrejówka
  - Sulin Źiegostow
  - Veľká Franková Kacwin

#### 1.4.1.2 Traffic Intensity of Border Crossings – Comparison 1995/2000/2005

Congestion of road network throughout the region of Eastern Slovakia is being monitored on some of the selected roads. The results are registered in five-year intervals since 1995 (1995, 2000, and 2005).

Overviews of the total congestion at border crossings throughout the years 1995 to 2005 are recorded in **Table 1. Traffic** intensity of border crossings/entry points to the regions.

**TABLE 1** Traffic Intensity of Border Crossings

Tatal	Number of vehicles/24 hours										
Iotai	Т	Р	1995	Т	Р	2000	т	Р	2005	Prediction	
From Slovakia	3 969	11 711	15 765	4 628	15 684	20 387	7 633	18 821	26 186	38 915	
		Number of vehicles/24 hours									
From countries overall	т	Р	1995	т	Р	2000	т	Р	2005	Prediction	
From Poland	486	2 928	3 429	725	4 024	4 770	1 359	6 091	7 737	12 153	
From Hungary	1 192	3 639	4 864	986	4 271	5 326	1 885	4 691	6 603	9 947	
From Ukraine	458	2 097	2 577	440	1 536	1994	229	1 108	1 339	2 355	

More detailed analysis of cross-border and domestic traffic by border crossings and whether it is a public transportation (P)/ or truck transportation (T) is recorded in Table 1.

Table 1 reveals an increase in traffic intensity and which should motivate the responsible authorities to invest financial resources for required maintenance, repairs or any other road structures.

#### 1.4.2 Railway Infrastructure

#### 1.4.2.1 Development of Railway Infrastructure

Figure 5 Development of railway infrastructure



#### 1.4.2.2 Development of Narrow-Gauge Rail-line network

Narrow-gauge rail-line network served mainly to transport wood from the forest to the consumer or processor. They were built in the first half of 20th century, but served effectively only few decades. Currently, most of them were cancelled and preserved, so they can serve for public as a significant technical and cultural monument. In this study, we focus our attention on narrow-gauge rail-line network, because they could become very interesting for potential tourist.

**Bieszczadská forest railway** – narrow-gauge rail-line from Nowy Lipkow to Cisna was being built from 1890 – 1898 and it was extended later all the way to Beskydy Mountains (1900- 1914). In the mid 50s, it was renewed and further extended, new sections were built: Smolnik – Rzepedz, Cisna – Wetlina – Moczarne. Overall length of the railway is 73 km. Today, it is being operated by the foundation: Bieszadska Kolejka Lesna. Regular passenger railway transport is provided by Železničná spoločnosť Slovensko, a.s, cargo transport is provided by Cargo Slovakia, a.s. FIGURE 6 Railway infrastructure in Eastern Slovakia



There are 16 railway lines altogether in the region, in total length of 895 km (250 km – double track lines, 458 km electrified railway lines). Transport at single track lines has been terminated since 1. 2.2003.

Railway line number 166 Plešivec - Slavošovce, line n.167 Rožňava mesto - Dobšiná, line n.168 Moldava nad Bodvou - Medzev, line no. 186 Spišská Nová Ves - Levoča and line no. 192 Trebišov - Vranov nad Topľou.

#### 1.4.2.3 The Interrelation of Slovak Railway Infrastructure with the International Infrastructure

The Slovak Republic is internationally connected with other states also by the means of railway transport. Guidelines for the development of railways are fundamental international agreements AGC (European Agreement on Main International Railway Lines), AGTC (European Agreement on Important International Combined Transport Lines and Related Objects), which were specified in II. And III. Pan-European Conference in Crete and Helsinki.

#### Following multimodal corridors are recognized within the Slovakia:

- Corridor no. IV: Praha state border Czech/Slovakia Kúty Bratislava Štúrovo state border Slovakia/Hungary -Balkan/Orient
- Corridor no. V.: Bratislava -Žilina Čierna n/T state border Slovakia/Ukraine Ľvov
- Corridor no. VI: Balt Warszawa Zwardoň state border Poland/Slovakia Čadca Žilina
- Corridor no. IX: Kraków state border Poland/Slovakia Plaveč Prešov Košice Čaňa State border Slovakia/ Hungary – Budapešť

Following corridors are crossing the region of Eastern Slovakia:

- Corridor no. V. south and south-eastern Europe, whose slovak branch goes through: Bratislava Žilina Košice -Čierna nad Tisou – Ukraine,
- Corridor no. IX state border PL/SR Plaveč Prešov Košice state border SK/HU.

**Broad-gauge rail-line** from Ukraine–Matovce – U.S Steel Kosice areal is electrified and is used for the transport of raw materials from Ukraine straight into U.S Steel Kosice areal.



#### 1.4.2.4 Characteristics of International Railway Border Crossings

Border crossing mode is carried out in compliance with valid regulations and contracts on public and cargo transport with Hungary, Poland, and Ukraine.

#### Railway border crossings with Poland:

**Plaveč – Muszyna:** on-stop open for public and cargo transport, single-track railway, electrified by traction system (3000V). Currently, two fast rail-links from Warsaw to Budapest are passing through this particular crossing. There are two pairs of passenger trains operating on the line **Plaveč – Muszyna – Krynica** during the summer and winter tourist season.

**Medzilaborce – Lupków:** This railway border crossing is open from 07:00 am to 19:00 pm only during the summer time tourist season. Currently, there are two railway lines operating in this direction in the summer tourist season (Friday, Saturday, and Sunday).

Polish authorities are considering a termination of passenger trains connecting Zagorza and Lupkow.

**TABLE 2** Number of passengers from/to Polish railways

	year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Plaveč – Muszyna	Number of passangers	6068	5319	3831	4339	3870	4062	4045	5115	1488
Medzilaborce – Lupków	Number of passengers	860	696	642	252	577	664	190	362	293

TABUĽKA 3 Počet prepravených cestujúcich cez pohraničný žel. priechody do a z Maďarska

PPS	rok	2001	2002	2003	2004	2005	2006	2007	2008	2009
Sl. Nové Mesto - Sátoraljaújhely	Počet cestujúcich	681	761	418	484	38	58	134	124	0
Čaňa - Hidasnémeti		16145	18510	16903	17425	21082	22670	22564	21840	24676

**TABUĽKA 4** Počet prepravených cestujúcich cez pohraničný žel. priechody do a z Ukrajiny

PPS	rok	2003	2004	2005	2006	2007	2008	2009
Čierna n/T - Čop	Počet cestujúcich	5236	5482	8096	8476	14781	8107	6029

#### 1.4.3 Cycling infrastructure

The introduction should provide a brief overview of cycling infrastructure in the Slovak Republic. According to available data, the share of bicycle transport in Slovakia is around 6 % (for example in Presov, Martin, Trencin). This share, in fact, does not represent the standard average. Tourist cycling infrastructure is much more developed when comparing with classic road cycling infrastructure, because it creates access to some of the tourist facilities and destinations.

#### 1.4.3.1 Cycling Transport Nodes in Border Regions of Eastern Slovakia

The pillars of development in border regions of Eastern Slovakia and their accessibility through the cycling infrastructure can only be assessed in the context of tourism. As we already mentioned above (chapter 1.2.4. Nature and landscape protection), the border region is rare in terms of exceptionally valuable and preserved nature, which is often protected by a **high level of protection**. This region is characterized because of its undeveloped transport infrastructure, mainly in border region areas. This situation induces two opposites. People, who want to visit remote border regions, are limited, because of the missing infrastructure. On the other hand, remote areas are well protected due to a difficult access to these "forgotten" areas, which decreases a willing of people to visit remote border regions.

In this study, the analysis focuses on the Eastern Slovakia border region with Poland, Hungary and Ukraine. Sites, that represent the development nodes, are divided into six groups according to presently popular tourist destinations:

- 1. Tatras The High Tatras (SK) Zakopané (PL) border crossings: Lysá Poľana
- 2. Pieniny Červený Kláštor (SK) Niedzica (PL) border crossings: Lechnica, Spišská Stará Ves
- 3. Protected landscape area The Eastern Carpathians route to the wooden churches, Medzilaborce (SK) Komancza, Sanok (PL)
- 4. Poloniny Sninské rybníky (SK) Cisna a Solina (PL)

Other nodes represent accessibility of urban tourism, which are represented by the cities: Nowy Sacz and Krosno in Poland, Bardejov, Prešov and Košice in Slovakia, Užhorod in Ukraine and Miskolc in Hungary.



FIGURE 8 Diagram of tourist destination nodes and their interconnection

FIGURE 9 Proposed cross – border cycling routes



Already existing lines / Proposed lines

### 2. Synthesis

#### 2.1 Evaluation of Natural Predispositions for the Purpose of Tourism

The most important nature conservation areas are mostly situated on the edge of border regions (north, east, south, north-west), where national parks such as NP HighTatras, Pieniny NP, NP Slovak Karst, NP Poloniny are located (NP – National Park). As already mentioned above, geomorphologic predispositions predetermined the form of state borders, which often caused restriction in cross-border economic activities and communication. Restrictions have been caused due to increased distance from the economic centres, undeveloped transport and communication possibilities.

#### 2.2 Evaluation of Transportation Infrastructure

The region of Eastern Slovakia has been an intersection of the north – south transportation route in the direction from Baltic – Black Sea and east – west transportation route, connecting Europe and Asia. North – south link was dominant throughout the centuries in the region of Eastern Slovakia, until the new geopolitical configuration of Central and South–Eastern Europe created new national borders of east – west direction (formation of Czechoslovakia). New geopolitical arrangement began a construction of east – west transport network (railway Bohumin – Kosice, road network Bratislava – Zilina – Presov – Kosice). The north – south transport network has been declining and it has lost its importance ever since then.

New economic, social and political environment, which was created by the expansion of European Union by 10 former socialist states, abolished national borders as a barrier and enabled better movement of people, goods and services as well. After decades of restrictions, former North – South transportation route has re–opened again. It has provided a new vision and new dimension in the further development for the region of Eastern Slovakia.

#### 2.2.1 Evaluation of Road Infrastructure

Analytical studies (1.4.1.) have shown, that besides the primary "Multimodal Corridor V. a "(East-West), it is advantageous to link the region to the northern direction of Corridor III., and southern direction of Corridor V. and IV. (Figure 2 – Multimodal Corridors, Figure 3 – TEM Network).

Connection between these corridors, as described in the document **"TRANS-EUROPEAN NORTH-SOUTH MOTORWAY (TEM) NETWORK/MAY 2008**" goes directly through the region of Eastern Slovakia.

Comparison and the length of particular routes within corridors (direction: Bialistok – Poland up to Edirney (Turkey) are presented on the Figure 2 – Multimodal Corridors:

Corridor:

 A: Białistok – Warszawa – Český Těšín – Brno – Bratislava – Budapest –.... – Erdine – lenght 2.872 km,

- B: Białistok Warszawa Zwardoň Bratislava Budapest .... Erdine lenght 2.410 km (462 km shorter),
- C: Białistok Lublin Rzeszów Prešov Košice Miskolc Arad –.... Erdine lenght 2.047km (825km shorter/ resp. 353 km).

It is clear, that in terms of connecting the eastern European countries, the corridor C is the most favourable possibility and it is extremely important in terms of integration and development of the Eastern Slovakia region.

### 2.2.1.1 Evaluation of the Increase in Road Transportation Infrastructure (1995/2000/20005 comparisons)

Although statistical data obtained by counting the number of vehicles on the selected sections of the road network were collected within a relatively short period of time (1995, 2000, 2005), an increase in traffic intensity on both directions (north-south, west-east) is indisputable. Particularly, the growth in the north-south direction is alarming and requires immediate action from the responsible authorities. This situation requires an improvement of technical condition of overall road infrastructure.

These trends are now being clearly recognized by the diversion of traffic from the route V. Komárnik – Prešov – Košice – Milhosť to V. Komárnik – Vranov – Trebišov – Slovenské Nové Mesto, where in some parts, the truck traffic has increased by 175%, while the traffic in Milhost has decreased significantly.

#### 2.2.2 Evaluation of Railway Infrastructure

There is a significant decrease in the total number of passengers travelling on the line Plavec – Muszyna (from 6068 passengers in 2011 down to 1488 passengers in 2009). Decrease has been also recorded on the track from Medzilaborce – Lupkow, where number of passengers has decreased from 860 in 2001 to 293 in 2009. Some measures have been approved (restriction or cancellation of traffic) as a result of decreasing numbers.

The negative trend in the number of transported passengers on the line between Poland and Slovakia is alarming and it is seriously affecting the operation on these lines. The Analysis of road network reveals an enormous increase in road traffic, but also shows a great decrease in railway transportation, which could lead to its ultimate collapse.

The Eastern Slovakia has a considerable potential to exploit its position and serve for the transport of people, goods and services.

#### 2.2.3 Evaluation of Cycling Infrastructure

This study puts focus on cycling routes in the border regions of Eastern Slovakia along the borders with Poland, Ukraine, and Hungary. Attention is focused on cycling routes, which may provide a connection among tourist centres within the region.

Currently, tourist centres are connected by cycling routes on the both sides of the border. These cycling routes are also being used as existing lower class roads. They are equipped with visible cycling (tourist) boards, which are country – specific.

In the border areas of the Eastern Slovakia, cycling routes provide an alternative possibility for active tourism on both sides of the border, because road and railway infrastructure is often undeveloped and insufficient.

### 3. Proposals

# 3.1 Specific Proposals in the Field of Road Infrastructure

The road network in Kosice Region meets necessary requirements only partly (D1 motorway Presov-Kosice). All requirements will be met right after the completion of expressway R4.

In the west-east direction, heading to Ukrainian border, it is quite necessary to improve conditions for the border crossing Ubla, when assuming the future increase in traffic. Ubla is approximately 40 km away from main corridor V.a., creating conditions for some alternation and distribution of the traffic in this specific direction (R4 link will help to reduce traffic as well). Its importance will grow, until the highway D1 doesn't reach the Ukrainian border.

Other road network, especially in the border areas, meets all the requirements and is satisfactory (not speaking of technical conditions). The capacity of the road infrastructure has already been exceeded by the year 2010 (as documented in the analytical part of the study) and it is necessary to deal with the upcoming situation:

- Corridor D1:
  - Poprad Prešov (solved in the second package of PPP project);
  - Košické Olšany Sečovce;
  - District border (Trebišov Michalovce) junction I/50 with III/050234 (road I/50 in the city of Michalovce).
- Corridor R4:
  - I/18 Prešov Chmeľov.

Some requirements of certain selected roads for their "higher standard" might be reviewed in the near future, because of upcoming large projects in tourism (Vtacie udolie and others).

#### PLANNED CONSTRUCTION OF BORDER-CROSSINGS

#### International - within EU/Schengen area

#### a) border-crossings for an unlimited amount of traffic and transportation Poland

• III/067029 Podspády – Jurgow

### b) Minor border-crossing (will be established and financed by municipalities within the border region)

#### Poland

- II/559 Čertižné Jaśłiska
- III/557024 Nižná Polianka Oźenna
- Červený Kláštor Sromowce Nižne
- Legnava Miłik

- Lesnica Sczawnica
- Malý Lipník Andrejówka
- Sulin Źiegostow
- Veľká Franková Kacwin

Generally, the congestion of the main corridors and existing border-crossings still satisfies the current intensity of traffic. However, the anticipated increase in traffic intensity needs to be considered in the process of improvements planning.

### Proposed measures considering the increase in traffic (resulting from the comparison 1995/2000/2005)

Based on elaborated analysis and synthesis, along with the communication in the border areas, it is necessary to respond to the requirements of growing traffic intensity in the Schengen border areas (roads II/555 and II/566) Kráľovský ChImec – Veľké Kapušany – Sobrance – Ubľa – Ulič.).

Congestion of the existing main corridors and border crossings is clear according to the analysis, but it is necessary to prepare the elaboration of some of the planned main corridor constructions **"TEM4" and "TEM6/7"**, in order to handle the expected increase in traffic in the north-south direction.

Traffic capacities in the border areas with the EU countries currently seem to meet the requirements for minor cross-border traffic (considering the planned construction and technical reconstruction of already existing facilities). At present, the intensity of "heavy" vehicles is not expected to rise dramatically in the future, so authorities consider current state as satisfactory.

# 3.2 Specific Proposals in the Field of Railway Infrastructure

Negotiations on building the IX. Corridor from Poland to Slovak Republic and Hungary started in early 2010. The aim of such negotiations was to assess the possibility of involvement into the Operational Programme for Central Europe, in the field of construction and restoration or railway links within the corridor TEN T in Central Europe, through the joint project. Operational Programme for Central Europe is a programme for central Europe and countries (Poland, Slovakia, Hungary, Czech Republic, Slovenia, Italy, part of Germany), from which financial resources can be drawn in order to implement joint project activities for the period of years 2007-2013 in the following priorities :

- 1. Support of innovation in Central Europe,
- 2. Improve the external and internal accessibility of Central Europe,
- 3. Appropriate use of the environment,
- 4. Increase the competitiveness and attractiveness of cities and regions.

Proposal for the Polish side is to develop joint feasibility study, focused on the construction and reconstruction project of Pan-European railway transport corridor, linking Poland, Slovakia and Hungary. The study should asses the possibility of modernization (upgrade to double-track rail-line) of main north-south rail-line infrastructure, so the operating speed on this line could increase up to 120 km/h on the line border PL/SK – Plavec – Presov – Kysak.

#### 3.3 Specific Proposals in the Field of Cycling Infrastructure

Newly proposed cycling possibilities have been introduced, which will enable a significant increase in accessibility and awareness of remote regions to its visitors.

#### **SLOVAK - POLAND BORDER REGION**

#### Newly proposed cycle routes

SK-PL-Not **linking the region of High Tatras and Zakopane by an alternative path going off the main routes** for example Bielovodska Valley SK – Valley Roztoki PL

Lysa Polana border crossing – using forest roads, heading to Chlabowka Wyznie

**Mníšek nad Popradom - Piwniczna Zdroj** – link to some of the polish cycling routes, with the possibility of creating a decent cycling infrastructure: SCR –Stará Ľubovňa – Litmanová, along the river Poprad.

### 4. Conclusion

The Eastern Slovakia can be described as an undiscovered tourist region, which may offer visitors the natural beauty and historical and cultural attractiveness:

- Most of the monuments classified as World Cultural and Natural Heritage (UNESCO) are located in the eastern part of Slovakia, especially Bardejov, Levoca, wooden churches and forests as a part of The Eastern Carpathians and caves in Slovak Karst.
- There are many preserved historical centres of towns and villages, which are currently classified as conservation areas: Kosice, Presov, Bardejov, Spisska Kapitula, Levoca, Spisska Sobota, Kezmarok, Podolinec, Zdiar and Osturna.
- Former aristocratic residences now serve as a part of museum areas, other are still waiting to be used meaningfully. Really interesting mansions can be found in Betliar, Budimir, Markusovce, Trebisov, Humenne, Moravany, Fricovce, Strazske, Kezmarok, Betlanovce and elsewhere.
- The most famous and attractive castles are Spis Castle (Spišský Hrad) and Krasna Hôrka. There are also many ruins left in the region of Eastern Slovakia.
- Religious monument have a great importance as well: temples and monasteries located at following places: Košice, Jasov Levoča, Bardejov, Žehra, Spišská Sobota, Kežmarok, Červený kláštor, wooden churches of The Eastern Carpathians, Svinica, Čečejovce, Leles.
- Areas with preserved monuments of folk architecture are: Bardejov (Museum of Šariš village), in Humenne (Exposition of folk architecture and housing), in stara Lubovna (Museum of Zamagurska Village) and in Svidnik (Museum of Ukrainian-Ruthenian Culture).
- The major technical monuments are situated in the following areas: Solivar, Zlatá Baňa, Dubník, Medzev, Vlachovo, Nižná Slaná, Rožňava
- Museums and galleries (which are part of the castles, cities, and monasteries) are also being considered as major institutions dealing with the cultural heritage and helping to introduce the culture of Eastern Slovakia.

www.viaregiaplus.eu