



THE POTENTIAL FOR IMPROVED ACCESSIBILITY AND TOURISM DEVELOPMENT IN THE POLISH-SLOVAK BORDERLAND

Conditions, recommendations and good practices

Marek Więckowski
Daniel Michniak
Branislav Chrenka
Vladimír Ira
Tomasz Komornicki
Piotr Rosik
Vladimír Székely
Przemysław Śleszyński
Rafał Wiśniewski



Instytut Geografii i Przestrzennego Zagospodarowania
Polska Akademia Nauk

Geografický ústav
Slovenskej akadémie vied



Marek Więckowski
Daniel Michniak
Branislav Chrenka
Vladimír Ira
Tomasz Komornicki
Piotr Rosik
Vladimír Székely
Przemysław Śleszyński
Rafał Wiśniewski

THE POTENTIAL FOR IMPROVED ACCESSIBILITY AND TOURISM DEVELOPMENT IN THE POLISH-SLOVAK BORDERLAND

Conditions, Recommendations and Good Practices



Institut Geografii i Przestrzennego Zagospodarowania
Polska Akademia Nauk



Geografický ústav
Slovenská akadémia vied

Warszawa – Bratislava 2012

<http://rcin.org.pl>



A project co-financed by the European Union's European Regional Development Fund
as part of the Cross-Border Co-operation Programme
Republic of Poland – Slovak Republic 2007–2013

The volume is a product of Project No. WTSL.02.01.00-14-087/08:
Infrastructure and organization used for improving the space-availability
factor in the developing Polish-Slovak tourist regions

Research financed from the research budget of 2012
allocated for international co-financed projects

English translation by: Ewa Basiura, Hana Contrerasová, Krzysztof Kowalczyk,
Zuzana Miklošiková

Edited by: Marek Więckowski
Cartography by: Przemysław Śleszyński

Cover design: CREARTA; <http://www.crearta.com/>
Cover photo: Marek Więckowski

© Instytut Geografii i Przestrzennego Zagospodarowania PAN, Warszawa 2012
© Geografický ústav SAV, Bratislava 2012

ISBN 978-83-615890-80-4

Typeset by: Studio DeTePe, Paweł Rusiniak
Printed and bound: Poligrafia Inspektoratu Towarzystwa Salezjańskiego, ul. Bałuckiego 8,
30-318 Kraków

TABLE OF CONTENTS

1. INTRODUCTION	5
2. SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS	6
2.1. Projected Changes of Demand as a Result of Road System Development	6
2.2. Organisation of Public Transport	9
2.3. Utilization of the EU Funds to Transport Infrastructure Development	12
2.4. How to Build an Optimum Transport Network for Tourism Purposes	15
2.5. Changes in Society and Tourism	17
2.6. Seasonality of Tourism	18
2.7. Spatial Disproportions and Efforts to Overcome Them – Overconcentration of Tourism and its Deepening	22
2.8. The Role of Demand and Supply for Tourism Development – Selected Methodology Examples	25
2.9. Competition-Complementarity-Cooperation	33
2.10. Coordination of the Development and Promotion of Tourism in Regions of Slovakia	35
2.11. Concept of Clusters and Cluster Initiatives	35
2.12. Tourism, Sustainability and Environmental Impacts	38
2.13. Perception of the Potential of Tourism and Transport Accessibility of the Polish-Slovak Borderland by the Representatives of Local Government ...	42
2.14. Perception of Tourism and Accessibility from the point of view of Tourists ...	44
3. TRANSPORT- AND ACCESSIBILITY-RELATED CONDITIONS FOR TOURISM DEVELOPMENT IN THE INDIVIDUAL POLISH POVIATS AND SLOVAK OKRESES	48
3.1. The Śląskie voivodship	49
Bielsko-Biała Poviát	49
Cieszyn Poviát	50
Pszczyna Poviát	50
Żywiec Poviát	51
3.2. The Małopolska voivodship	51
Gorlice Poviát	51
Limanowa Poviát	52
Myślenice Poviát	52
Nowy Sącz Poviát	53
Nowy Targ Poviát	53
Oświęcim Poviát	54
Sucha Beskidzka Poviát	55
Tatra Poviát	55
Wadowice Poviát	56
3.3. The Podkarpackie voivodship	56
Bieszczady Poviát	56
Brzozów Poviát	57
Jarosław Poviát	57
Jaśło Poviát	57
Krosno Poviát	58

Lesko Powiat	58
Lubaczów Powiat	59
Przemyśl Powiat	59
Przeworsk Powiat	59
Rzeszów Powiat	60
Sanok Powiat	60
Strzyżów Powiat	61
3.4. The Žilina kraj	61
Bytča Okres	61
Čadca Okres	61
Dolný Kubín Okres	62
Kysucké Nové Mesto Okres	62
Liptovský Mikuláš Okres	63
Martin Okres	63
Námestovo Okres	64
Ružomberok Okres	64
Turčianske Teplice Okres	64
Tvrdošín Okres	64
Žilina Okres	65
3.5. The Prešov kraj	65
Bardejov Okres	65
Humenné Okres	66
Kežmarok Okres	66
Levoča Okres	67
Medzilaborce Okres	67
Poprad Okres	67
Prešov Okres	68
Sabinov Okres	68
Snina Okres	68
Stará Ľubovňa Okres	68
Stropkov Okres	69
Svidník Okres	69
Vranov nad Topľou Okres	69
4. BEST PRACTICES OF TRANSPORT AND TOURISM DEVELOPMENT	70
4.1. Tatra Electric Railway (TEŽ)	70
4.2. Railway Around the Tatras	71
4.3. Historic Zigzag Railway of Nová Bystrica - Vychylovka and the Forest Railway of Oravská Lesná	72
4.4. Bieszczady Forest Railway	72
4.5. Public Transport System in Zakopane (minibuses).	74
4.6. Airports and Transfers Services	75
4.7. Affordable “Transport on Demand”.	76
4.8. Tripoint – where the Borders of Three Countries Meet	77
5. SUMMARY	79
BIBLIOGRAPHY	80

1.

INTRODUCTION

This book has predominantly a practical aspect. It presents ideas concerning the development of tourism and transport as well as their mutual interactions. The issues addressed in the book are presented in a way allowing them to be used independently of the remaining chapters.

This book complements a previous study entitled *The Polish-Slovak Borderland – Accessibility and Tourism*, carried out within the framework of the INFRAREGTUR project (Infrastructure and organization used for improving the space-availability factor in developing Polish-Slovak tourist regions). Some sections of the publication recapitulate the key points and conclusions presented in the above survey, but they are presented in a way that allows them to be used in a practical way.

The purpose of this publication is to help local and regional authorities to take decisions in such areas as tourism (investments, guidelines for improving accessibility of tourist areas), economy (promoting tourism, including international tourism), promotion (territorial marketing) and financing (including ways of obtaining EU subsidies for regional and local policy making). Importantly, the book is also an attempt to transfer knowledge to the public administration and tourist organisations and tailor it to the specifics of the Polish and Slovak cases; indicating the opportunities and threats related to transport development and its impact on tourism and regional growth may be a useful decision-making tool for the public administration. Consequently, it may improve the attractiveness of some areas for tourists and enhance the opportunities for exploiting existing and newly created tourist potential.

The number of participants in the project, which led to the publication of this book, is very high. Altogether the book has nine authors. The project and book coordinator was Marek Więckowski, while the work of the Slovak team was coordinated by Daniel Michniak. The other authors are (in alphabetic order): Branislav Chrenka, Vladimír Ira, Tomasz Komornicki, Piotr Rosik, Vladimír Székely, Tomasz Przemysław Śleszyński, and Rafał Wiśniewski.

The book is divided into four chapters. The first chapter presents an introductory description, the premises and goals of the book. The second chapter is a review of the key factors, which determine tourism development and allow tourist potential to be exploited, particularly in terms of accessibility. The third chapter, entitled *Transport- and accessibility-related conditions for tourism development in the individual Polish poviats and Slovak okreses*, presents the most important conclusions and recommendations for each of the Polish-Slovak borderland areas. It presents the results of an analysis of the accessibility of the different regions and tourist destinations and the key transport solutions required for their successful development. It also assesses the existing and planned transportation infrastructure development in terms of current and future tourism needs. Chapter 4 presents examples of successful solutions contributing to tourism development and accessibility improvement. The examples describe combined activities in the transport and tourism sectors, while respecting the natural environment.

2.

SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS

2.1. PROJECTED CHANGES OF DEMAND AS A RESULT OF ROAD SYSTEM DEVELOPMENT

In the countries of Central-Eastern Europe, including Poland and Slovakia, a significant shift in demand for different types of transport occurred after 1989. The passenger transport influenced (similarly as in other countries of the European Union) very fast increase of the motorization level in Poland from 138 cars per 1,000 inhab. in 1990 to 432 in 2009 and in Slovakia from 166 to 293 cars per 1,000 inhab.

Poland and Slovakia differ in terms of trends in mobility of the population. In 1995, the inhabitant of Slovakia travelled 6.8 thousand km by passenger car, by bus or by railway on average and the inhabitant of Poland only 4.5 thousand km, but in 2009, the inhabitant of Slovakia only 6.3 thousand km, while the inhabitant of Poland up to 8.6 thousand km on average (EU transport in figures, 2011, Statistical Pocketbook 2011). The transportation performance per one inhabitant of Slovakia remained on the same level while in Poland it doubled (fig.1).

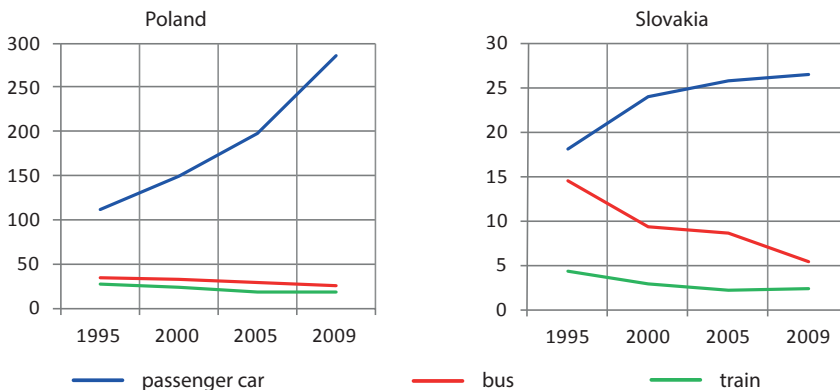


Figure 1. Development of the Transport Performance According to Individual Means of Transport in Poland and in Slovakia in the period 1995–2009 (thousand million person/kilometer)

Source: EU transport in figures, 2011, Statistical Pocketbook 2011, pp. 44, 45, 47

In 2009, the share of particular means of transport in the transportation performance in Poland and in Slovakia was similar differing in the fact that in Slovakia the bus transport is still the strongest one. A relatively high share of bus transport is obvious with roads for recreational purposes (Fig. 2). According to Eurostat, the inhabitants of

Slovakia travel by bus on 23% of their trips lasting more than 4 days. Moreover, in 2008 the inhabitants of Slovakia were using air transport more frequently than inhabitants of Poland (21% share from roads in Slovakia and only 9% in Poland). On the other hand, compared to the average in the EU27, Poland has a high share of train transport when travelling for recreational purposes (18%).

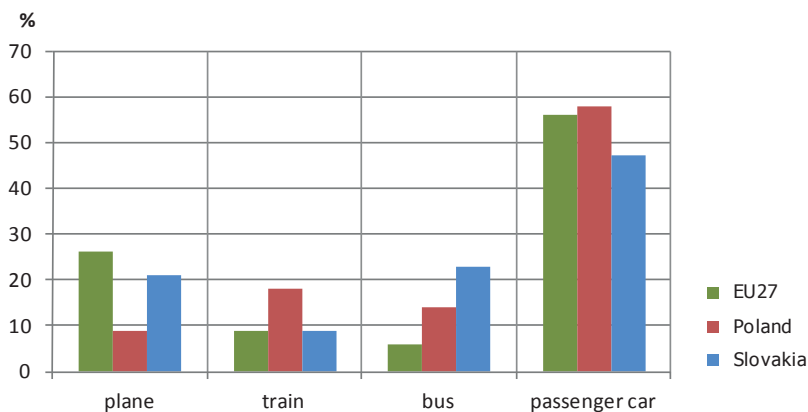


Figure 2. Use of Means of Transport when Travelling for Recreational Purpose in 2008 (journeys lasting for more than 4 days; tourists older than 15 years of age)

Source of data: Tourism Statistics in the European Statistical System – 2008 data, 2010, Eurostat, p. 37; own processing

In the future, we can expect further growth in car transport activity. Obviously, high fuel prices may discourage some drivers/tourists from using their own cars. However, the lack of such alternatives as fast rail or air connections, as well as improving road infrastructure (motorways and expressways), will increase traffic even further.

THE INCREASE OF TRAFFIC

The increase of traffic in the whole of Poland on these routes in the period 2005–2010 was similar to the increase of density within the entire road network. The differences among individual roads were, however, quite significant. The most burdened route from among the routes securing access to the Polish-Slovak borderland is the E-40 (A4 motorway). The biggest increase of traffic in the whole of Poland was recorded here. A great increase of the traffic density was recorded in Rzeszów though the cross-border section in the direction of the border with the Ukraine in the period 2005–2010 showed a decrease of traffic intensity (tab. 1). Almost identical traffic density was found on the North-South E-75, but in this case a smaller increase compared to the average increase on international roads was recorded but on the sections in the analysed cross-border territory, the traffic intensity increased in the town of Pszczyna (maximum traffic) as well as on the section near the Polish-Czech border in Cieszyn.

There as a relatively high increase in traffic on the North-South route E-77 leading from North Poland via Kraków to Chyżne. In the cross-border section in Chyżne the

2. SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS

vehicle traffic approached almost 5,000 vehicles a day. This is probably partially caused by commissioning of sections of the S7 expressway on that route (between Warsaw and Radom and between Myślenice and Lubień). A significantly smaller burden and traffic increase were also recorded on road E-371 (apart from the surrounding of Rzeszów). The average traffic density in Barwinek in 2010 was lower compared to 2005.

Table 1. Traffic Intensity on Selected Roads in 2005 and 2010 in the Polish Part of the Borderland (number of cars per day in thousands)

international road/ road No.	maximum intensity in 2010	minimum intensity	maximum intensity in 2005	minimum intensity (cross- border sections) in 2005
E-40 / A4	29,7 (Rzeszów)	3,2 (Korczoza)	23,7 (Rzeszów)	3,7 (Korczoza)
E-75/E-462 / S1 (DK1)	39,6 (Pszczyna)	11,8 (Cieszyn)	33,1 (Pszczyna)	7,1 (Cieszyn)
E-77 / S7 (DK7)	27,3 (Myślenice)	4,9 (Chyżne)	23,7 (Myślenice)	4,0 (Chyżne)
E-371 / S9 (DK9)	21,8 (Rzeszów)	3,4 (Barwinek)	16,4 (Rzeszów)	3,6 (Barwinek)

Source of data: Generalny Pomiar Ruchu (Traffic Census) 2005, 2010, GDDKiA; own processing

NEW INVESTMENTS WITHIN THE ROAD SYSTEM AND TRAFFIC INTENSITY CHANGES

The most important currently implemented investments in road infrastructure in Poland, Slovakia and in the Czech Republic (especially those co-financed from the European Union funds) are related to the main West-East routes. The construction of the A4 motorway in Poland, D1 motorway in Slovakia and the route from Olomouc to Ostrava in the Czech Republic continues well. The building works focus on construction of the E75 motorway section (A1 motorway in Poland) among the North-South routes. Other North-South connections are mentioned in the numerous strategic documents but their implementation is only gradual, they are mostly in the preparation phase of projects. This is true not only about the sections in the actual borderland (see below) but also about the routes in its hinterland. The decisions restricting the range of the Polish programme of state road construction (related to the budgetary difficulties in 2011) decelerated among others the preparation of further sections of the North-South route S7 (Warsaw – Kraków – Chyżne).

The current road traffic intensity changes prove that traffic concentrates in spatial terms and moves between the different routes as the investment process evolves. This is evidenced by the growing intensity along the E40 and E77 traffic routes, where the A4 motorway and the S7 expressway are being built. One may expect the trend to continue in the years to come. Further traffic growth can be expected along the A4 motorway and the S69 expressway. The road system may experience new bottlenecks, requiring investments. These will probably include the construction of a bypass road for Kraków along the S7 (north-south) route, and the DK52 (E462) road from Kraków to Bielsko-Biała. The completion of the A4 may increase traffic intensity along the main roads leading to the borderland (e.g. Sanok-Rzeszów, Jasło-Pilzno and Nowy Sącz-Tarnów).

2.2. ORGANISATION OF PUBLIC TRANSPORT

BUS TRANSPORT ORGANIZATION

In March 2010, 19 bus transport companies established after the change of the ownership conditions of PKS (Przedsiębiorstwo Komunikacji Samochodowej – Bus Transport Company) were operating in the Polish part of the borderland. The passenger transport is performed also via buses and minibuses of private carriers especially in recreational centres and on intensely used routes such as Kraków – Zakopane. There are also companies focusing on urban mass transport carrying out transport in the touristic centres.

From 1 January 2004, responsibility for the field of public bus transport were taken over by the self-governing regions. The task of the self-governing region is to provide for transport services using bus transport for the region's inhabitants in order to meet their basic transportation needs such as travelling to work, for educational purposes, to health care facilities, to authorities and public institutions. The self-governing region finances performance in the public interest on bus lines whose distance does not exceed 100km. Moreover, it regulates maximum prices and tariff conditions of the passenger transport. The self-governing region allocates transport licenses to particular carriers and it approves the timetable. It should consider the situation, so that the transport services can provide mutual interconnection of the public regular bus transport and public passenger railway transport and in order to avoid provision of parallel public passenger transport. The self-governing region provides for compensation of losses from provision of services in the public interest for bus carriers in the region in the interest of the suburban bus transport.

In the Prešov Self-Governing Region bus transport is being provided by four carriers - SAD Prešov, SAD Humenné, SAD Poprad and BUS Karpaty Stará Ľubovňa. In the Žilina Self-Governing Region these include SAD Žilina and SAD LIORBUS Ružomberok. Moreover, there are many private carriers providing bus transport in the borderland.

CROSS-BORDER BUS CONNECTIONS

The most significant bus carrier between Slovakia and Poland is the Polish company STRAMA in Zakopane which operates the lines Zakopane – Poprad and Zakopane – Liptovský Mikuláš.

The Zakopane – Poprad bus operates four times a day in the seasons of the year when Zakopane records the biggest number of tourists – in winter tourist season (23 December- 9 January, 18 January – 5 March) in the period of Easter and public holidays in Poland at the beginning of May (21 April – 8 May) and during the summer tourist season (16 June – 15 October). The Zakopane – Liptovský Mikuláš bus operates four times a day only during the summer holidays. These lines provide for especially transport of Polish tourists to the Slovak part of the Tatras. They provide direct connection of Zakopane and significant attractions such as aqua parks (Oravice, Liptovský Mikuláš, Poprad), the Belianska jaskyňa cave, ski and tourist centres (Ždiar, Oravice, Zuberec) and the most significant centres in the Slovak part of the Tatras (Poprad an Liptovský Mikuláš).

The Slovak carrier Eurobus, a.s. Košice operates the connection on the route Spišská Nová Ves – Levoča – Spišský Štvrtok – Vrbov – Kežmarok – Spišská Belá – Vysoké Tatry (Tatranská Kotlina) – Ždiar – Nowy Targ. This connection operates on Thursday

and Saturday and it transports inhabitants of the Slovak part of the borderland to the markets in Nowy Targ.

The Hungarian carrier OrangeWays Zrt., Budapest provides for transport on the route Budapest – Zvolen – Banská Bystrica – Kraków. The bus operates four times a week. This connection, however, does not serve to connect the borderland since it has not stop in the borderland.

The buses of the Polish carrier –Wactur travel agency, Nowy Sącz travel across the Slovak-Polish border on the route from Poland (South-East part) to Italy with stops also in the territory of Slovakia (Trstená, Tvrdošín, Dolný Kubín, Kraľovany, Martin, Žilina, Považská Bystrica, Trenčín and Bratislava). Since prices of transport between Slovakia and Poland are PLN 110–130, the use of these connections for shorter distances is not budget-priced.

RAILWAY TRANSPORT ORGANIZATION

In 2000, the Polish State Railway Company, a. s. (*Polskie Koleje Państwowe S. A.* - PKP SA) was divided into several specialized companies. The tasks related directly to the passenger transport in the borderland are currently performed by the following companies: PKP InterCity S.A., Przewozy Regionalne Sp. z o.o. and Polskie Koleje Liniowe S.A. (mountain rope railways). PKP Polskie Linie Kolejowe S.A. (Tab. 2) is the administrator of infrastructure and railway stations.

Table 2. Railway Transport Organization in Poland and in Slovakia

Poland		Slovakia	
Company	Notes	Company	Notes
Przewozy Regionalne Sp. z o.o.	carrier – transport on the territory of the voivodeship (passenger trains) and transport between voivodeships (interREGIO and REGIOexpress trains)	Železničná spoločnosť Slovensko, a.s. (ZSSK)	carrier on the entire territory of Slovakia – trains of categories EuroCity, InterCity, EuroNight, express trains, local express trains, passenger trains
PKP InterCity S.A.	carrier –EuroCity (EC), Express (Ex) and Express InterCity (EIC) trains and express trains between voivodeships (TLK – Twoje Linie Kolejowe)		
PKP Polskie Linie Kolejowe S.A.	administration of the state network of railways (infrastructure)	Železnice Slovenskej republiky (ŽSR)	administration and operation of railway transport route
Polskie Koleje Liniowe S.A.	administration of mountain rope railways	Tatry mountain resorts, a.s.	owner and operator of cableways belonging under Tatranské lanové dráhy in the past

Source: own processing

In Slovakia, the public railway transport is provided by the state via the Contract on Performance in the Public Interest upon Operation of Transport on the Railway concluded by and between the Ministry of Transport, Construction and Regional Development of the Slovak Republic and the Železničná spoločnosť Slovensko, a. s. which quantifies the scope of performances and compensation of loss due to their implementation. At the end of 2011, the only private carrier in passenger railway transport in Slovakia was RegioJet which provided for one pair of trains in the IC category on a daily basis on the route Žilina – Ostrava – Praha.

CROSS-BORDER TRAIN CONNECTIONS

There are three railway lines with border crossings to Poland crossing the Polish-Slovak border: railway line No. 129 Čadca – Skalité – Zwardoń, railway line No. 188 Košice – Plaveč – Muszyna and railway line No. 191 Michaľany – Medzilaborce – Łupków.

In 2011, on the line Čadca – Skalité – Zwardoń, there were just two trains going to Poland – one of them on a daily basis and the other one only on working days.

Since 2010, no trains have crossed the border crossing Plaveč – Muszyna due to damaged railway infrastructure in the territory of Poland after floods.

In 2010, there were summer train connections from Slovakia to Poland operating via the border crossing Medzilaborce – Łupków. The trains were operating on Friday, Saturday and Sunday in the period from 19.VI. to 29.VIII. After the timetable changes applicable as of 1 May 2011, the operation on the railway line Medzilaborce-town – Łupków was cancelled due to uneconomic operation.

It is possible to state that passenger railway transport between Slovakia and Poland is very weak despite the existence of cross-border railway lines. This is probably caused both by unsatisfactory technical condition of the railway infrastructure and by bad organization of railway transport by the railway companies in Poland and in Slovakia. In terms of tourism development as well as the entire borderland, it would be at least appropriate to introduce extraordinary and seasonal trains. The connections connecting only cross-border stations are ineffective, connections which would connect bigger towns with potential tourists are more suitable.

CROSS-BORDER RAILWAY TRACKS USED BY TOURISM

There are three railway connections between Poland and Slovakia: Skalité – Zwardoń, Plaveč – Muszyna and Sanok – Medzilaborce. They run through attractive natural scenery of the Carpathian ridge. Regarding the development of tourism and of the boundary region it is appropriate to introduce some extra seasonal trains mostly on the routes lacking any regular transport. Cross-border railway tracks with regular service call for railway connections with cities, the possible sources of tourists, because mere connections between boundary stations are not effective enough.

A new specific tourist product employing cross-border railway tracks is represented by the thematic packets of services, which include visits to attractive localities situated near railway tracks. Introduction of special carriages with panoramic windows is also worth considering. Part of those interested in this attraction may possibly arrive by an individual transport means, which requires investment in infrastructure (parking lots next to railway stations). However, if the frequency of connections suffices, number of cross-border visitors will increase without any substantial environmental impact.

Use of historic railway stations with interesting and typical architecture as an original way of tourist accommodation in areas where they exist (unfortunately it is not the case of the Polish-Slovak boundary) proved success. Other option is to serve local gastronomy (regional meals and beverages) in restaurant cars as part of a thematic product packet. In case of well-coordinated cooperation between the railway company and other regional entities (bus companies, organizers of interesting events and tourist attractions), introduction of this form of transport may represent a unifying element in presentation of region.

2.3. UTILIZATION OF THE EU FUNDS TO TRANSPORT INFRASTRUCTURE DEVELOPMENT

One of the greatest benefits for Slovakia, Poland and other states during the process of their integration into the EU is an opportunity to use the financial means provided by the EU funds. Prior to joining the EU there are available financial means from the pre-accession funds (e.g. PHARE, ISPA) and after joining the EU the countries can use the means provided by the Structural Funds (e.g. ERDF) and the Cohesion Fund. These funds help to solve several problems existing in the economy and may contribute to the acceleration of economic growth.

One of the priority areas, development of which is financed by the EU funds, is transport infrastructure that creates conditions for movement of persons and goods between the EU member states. Money from the EU pre-accession funds and Structural Funds has played an important role in the process of developing transport infrastructure on the Slovak-Polish borderland and has contributed to building of several new roads and reconstruction of the existing ones. In terms of pre-accession funds the most important role can be attributed to the PHARE fund (PHARE CBC Programme) and in case of Structural Funds it was especially European Regional Development Fund (ERDF) within the INTERREG IIIA - SK-PL 2004–2006 Programme and the Programme of Cross-Border Cooperation Poland – Slovak Republic 2007–2013. The development of transport infrastructure in the borderland can also be financed through the OP Transportation projects, which utilize the money provided by the Cohesion Fund and ERDF Fund, as well as through the Regional Operational Programme (ROP) projects utilizing ERDF funds.

PHARE CBC PROGRAMME

Opening of the borders after 1989 and significant development of transport links between Slovakia and Poland necessitated the development of cross-border transport infrastructure. Several sections of the existing roads underwent reconstruction but in many cases construction of the new cross-border roads was necessary. Border crossing Čirč - Leluchów and Palota – Radoszyce may serve as the examples of construction of new cross-border road infrastructure using the financial means provided by the pre-accession EU funds (PHARE).

Road border crossing Čirč – Leluchów is located in Stará Ľubovňa County in the immediate vicinity of railway border crossing Plaveč – Muszyna and close to the place where the Poprad River leaves the territory of Slovakia. This place has served as a crossing for local border traffic since 1997. In 1999 it was turned into the border crossing for

tourists from 35 countries. The original bridge was destroyed by the floods and so there arose a need to build a new bridge. The project of constructing the new bridge (Visegrad Bridge) was supported by the EU funds under PHARE CBC Programme. Total costs amounted to SKK 4.5 million of which the contribution of PHARE CBC represented EUR 1.65 million. The Visegrad Bridge was opened in September 2003 (Korzár, 2003). However, the funds were used inefficiently from today's perspective. Capacity of the bridge is quite high and portion of the funds could have been used for another project.

Road border crossing Palota – Radoszyce is situated in the eastern part of the Slovak – Polish borderland (Medzilaborce Okres) in the mountainous area of Nízke Beskydy. Today this is the easternmost road border crossing between Slovakia and Poland. The crossing was opened in November 2003. Both reconstruction of the road section in Slovakia (6 km) and construction of the new road in Poland (5.1 km) were supported with a financial contribution from PHARE CBC Programme. Total costs of reconstruction of the Slovak section of the road hit the level of SKK 200 million (EUR 4.8 million in 2003). The contribution from PHARE CBC Programme was EUR 2 million for Slovakia and EUR 2 million for Poland (SITA, 2003).

INTERREG IIIA - SK-PL 2004–2006 PROGRAMME

The first programme of cross-border cooperation between Poland and Slovakia utilizing the Structural Funds was INTERREG IIIA Programme. Examples of transport infrastructure development projects aimed at reconstruction of the roads leading to the Polish border financed under INTERREG IIIA - SK-PL 2004–2006 Programme are the following:

- Modernization of road No III/544 Kurov – state border with Poland (5.0 km);
- Modernization of road No II/545 Zborov – state border with Poland (5.3 km);
- Modernization of road No III/557 24 Nižná Polianka – state border with Poland (0.51 km);
- Modernization and expansion of road connection Oščadnica – Vreščovka (SK) / Bór (PL) completed by the construction of road only in the Slovak territory.

In addition the modernized roads in the borderland regions were reconstructed within the projects:

- Reconstruction of road III/520019 Oravice - Zuberec completed in 2005 (5.6 km);
- Modernization of road III/558027 Ulič – Uličské Krivé – Zboj.

Modernization of road No 958 and 959 on route Zakopané – Chochołów – state border and modernization of road No 945–945 - Jeleśnia – border crossing Korbielów may serve as the examples of successful projects completed on the Polish side of the border.

PROGRAMME OF CROSS-BORDER COOPERATION POLAND – SLOVAK REPUBLIC 2007–2013

One of the four priority axes of the current Programme of Cross-Border Cooperation Poland – Slovak Republic 2007–2013 is the Cross-Border Infrastructure Development (see <http://pl.plsk.eu/>). The programme therefore includes several projects aimed at the development of road infrastructure in the borderland, the goal of which is to improve transport accessibility:

- Development of road infrastructure between counties Medzilaborce – Humenné – Snina – Sanok under which a new cross-border road Nižná Polianka – Oženna was

completed in October 2012. Reconstruction of the stretch Krosno – Kobylany – Toki of the municipal road No 1896R was completed under the project on the Polish side;

- Modernization of road connection Osturňa – state border – Niedzica, which included reconstruction of several road sections on both sides of the border;
- Construction of cross-border road connection Jaworzynka – Čierne – Skalité – Phase I. Reconstruction of municipal roads in Jaworzynka and Čierne under the Tripoint Development Programme. The project covered reconstruction of the local road in village Čierne on the Slovak side;
- Modernization of road infrastructure Rajcza – Oščadnica, which included modernization of a 5.24-kilometre long section of road III/011059 Oščadnica – Laliky on the Slovak side in 2011;
- Modernization of roads in Rajcza and Ujsoly villages in Żywiec County and in NowoŹ village with the goal to improve connection of regions on both the Polish and the Slovak side of the border. On the Polish side the project includes modernization of the stretch of county road No 1439S Rajcza – Ujsoly – state border running from Milówka to Glinka. On the Slovak side of the border the project covered reconstruction of the road connecting NowoŹ village with Mútne, Oravské Veselé and Beňadovo villages;
- Modernization of road connection of the Pieniny National Park including modernization of four sections of IIInd and IIIrd class roads with total length of 25.550 km (Kamienka – Veľký Lipník, Spišská Belá – Spišské Hanušovce, Červený Kláštor – Lechnica, Toporec – Haligovce). Modernization of two sections, road No K1638 Krošnica – Sromowce Niżne, section Wygon – Sromowce Niżne (6.5 km) and road No K1679, section Wygon – Niedzica (1.8 km) has been planned on the Polish side of the border;
- Oravská cesta (Orava Road) – the project of modernization of road section Jablonka – Lipnica Veľká – Bobrov – Zubrohlava running through the border crossing Bobrov – Winiarczykówka. The reconstruction affects voivodeship road No 962 on the Polish side and road III/520013 on the Slovak side

The Programme of Cross-Border Cooperation PL-SK 2007–2013 is a suitable instrument for financing the development of road infrastructure in the vicinity of state border. The owners of the roads, which are the self-governing regions in case of IIInd and IIIrd class roads and organizations established by them, namely the Road Administration of the Žilina Self-Governing Region and Road Administration and Maintenance of the Prešov Self-Governing Region, and individual villages in case of local roads, can act as the project applicants. In Poland the possible applicants include administration of voivodeship roads in Katowice, Krakow and Rzesow, the municipal authorities having the rights of districts (powiat) and district authorities administering the district roads and the city or municipal authorities (office of gmina) administering the local roads. The Programme of Cross-Border Cooperation PL-SK should also continue in the next EU programming period.

OPERATIONAL PROGRAMME TRANSPORT AND REGIONAL OPERATIONAL PROGRAMME

Funds from other operational programmes, namely OP Transport and Regional Operational Programme (ROP), the two programmes available to Slovakia in the programming period 2007–2013, may be used to develop transport infrastructure in the borderland.

Priority axis 2 – Road Infrastructure (TEN-T) of OP Transport is intended for highway modernization, and priority axis 1 – Railway Infrastructure for railway modernization, while both mentioned use money from the Cohesion Fund. Priority axis 5 – Road Infrastructure (expressways and Ist class roads) may be used to finance construction of expressways and modernization and construction of Ist class roads utilizing the funds from ERDF, which are also spent under the priority axis 6 – Railway Public Passenger Transport. Only large projects are implemented under OP Transport.

The examples of ROP projects, which involved reconstruction of numerous road sections in Žilina Self-Governing Region, are the following: Improvement of Transport Infrastructure in Historical Regions of Horné Považie, Kysuce, Orava, Liptov, Turiec; and Increase in Accessibility of Growth Poles in Regions of Turiec, Liptov and Orava, Horné Považie and Kysuce. Examples of projects implemented in the Prešov Self-Governing Region include Modernization of Sections of IInd and IIIrd Class Roads in Bardejov, Humenné, Prešov, Svidník, Vranov nad Topľou, Poprad, Stará Ľubovňa in PSGR; Reconstruction of Bridges on IInd and IIIrd Class Roads in PSGR; and Stabilization of Landslides on IInd and IIIrd Class Roads in PSGR.

2.4. HOW TO BUILD AN OPTIMUM TRANSPORT NETWORK FOR TOURISM PURPOSES

The impact of the transport infrastructure for tourism development may be of a multi-directional nature. The interdependence between the two areas often seems to be obvious; this does not mean, however, that we can clearly define its character, and furthermore establish the investment priorities, which will best serve the various types of tourism. Spatial accessibility studies provide scientific foundations for such conclusions to be drawn, and consequently for decisions to be taken by the different-level authorities. The classical transport system development indicators (expressed in kilometres, possibly relative to the size of population or area) do not fully fit the purpose. The growth in the length of roads translates into improved accessibility in a number of ways, thus generating a range of benefits for tourism. New or upgraded transport routes may be created in places of little significance for tourism. At the same time, even a short section of a new road network may at times significantly improve the accessibility of tourist destinations or attractions. Moreover, the role of individual investments may vary depending on the geographical scale. Therefore the impact of the transport policy on tourism must be assessed separately at the various territorial levels.

The European transport policy hardly ever pursues goals related to development of tourism. It is mainly oriented to creating intercontinental networks (chiefly responding to the demand for goods transport). At the same time, the EU policy is delivered to a large extent by the cohesion policy and the Structural Funds, which support investment activities, particularly in the new Member States. EU-level activities are to a growing extent determined by the energy and climate policies, which give preferential treatment to greener modes of transport. Investments delivered within the TEN network in the accession countries, including Poland and Slovakia, prioritise routes connecting these countries with the EU's economic core. For the most part they are of a latitudinal nature. The same approach is supported by the cohesion policy. This is due to the eastern location of

the poorer regions which are in need of support, among others, in the form of transport integration with the better developed central and western regions (in particular with the capital cities of both countries). In these conditions the longitudinal interconnections between Poland and Slovakia are not a natural priority. Paradoxically, the high-quality natural environment of the Carpathians also does not help EU-subsidised investments. The large number of actual and potential spatial conflicts between transportation corridors and the NATURA 2000 network makes investment preparation in these areas more difficult than in the other regions of the two countries. The situation may be changed by a new approach to the cohesion policy, especially territorial cohesion, which is determined by the Treaties. Adopting a place-based approach in the policy may cause the accessibility of tourist regions to be recognised as an important development factor. It is in the best interest of the local authorities of the Polish-Slovak borderland to get the areas concerned integrated into the trans-European system of longitudinal networks (and along the Czech direction), and then to obtain support for specific investment projects under the operational programmes of the 2014–2020 programming period. This concerns predominantly the Kraków–Chyżne–Banská Bystrica expressways (together with a branch road to Zakopane), the Rzeszów–Prešov expressway and the Piekiełko–Podłęże railway line (including the modernisation of its extension to Nowy Sącz, the Slovak border, and on to Zakopane).

The national transport policy also addresses tourism development goals to a limited extent. Meanwhile, managing tourist flows is a key point to be considered in delivering some investment projects. At the national level, many tasks relating to the accessibility of tourist destinations converge with the goals of improving the access from peripheral areas to the key regional and local towns and cities where public utility services are concentrated. This is exemplified by the eastern territories of the Polish-Slovak borderland, where potential investments may as well contribute to improving the accessibility of these areas for tourists and from distant cities, such as Rzeszów, Prešov and Košice. While the importance of investments in the TEN networks is important for both (the Polish and Slovak) parts of the area concerned, the national-level policy goals in the two countries do not necessarily have to converge. On the Polish side, the Slovak borderland is relatively densely populated (except for its eastern peripheries) with many gaps in terms of transport connections with the rest of the country. Despite this, the time distance from the main generators of tourist traffic located in southern Poland to the border area is not very big. As a result, many investments prioritise developing the local labour markets (and improving the availability of services) rather than generating new tourism. The Slovak part of the borderland is generally more accessible domestically, but at the same time it is cut off in transport terms from major Polish centres. In this case, cross-border investments may have a significant impact on the volume and structure of tourist flows. This means that in Poland supporting projects ensuring fast cross-border transport is justified, regardless of the prevailing tourism development model. Across the border, the same investments may increase the share of short-term tourism (mainly from Poland). Thus they will not contribute to the potential reorientation of activities to hosting long-stay (long-term) tourists.

Activities at regional and subregional level are no longer limited to building large infrastructure. Also gaining in importance is the modernisation of existing routes, building bypass roads and streamlining the organisation of public transport. Unlike the European and national levels, these actions are mainly delivered by self-government

authorities. They focus not so much on external accessibility (from the interior of both countries and elsewhere from Europe), but rather on the movement of tourists between their place of residence and tourist attractions (by private and public transport). The goal here is tourist traffic deglomeration (particularly in regions with a high concentration of tourism and in which tourism is likely to cause environmental threats), elimination of local seasonal congestion (which with time becomes an inhibitor of development and drives potential tourists away) and promoting less-known tourist attractions. Regional policy is also responsible for delivering better local cross-border connections, which really contribute to integrating the Polish and Slovak tourist markets. At the regional level, an accessibility analysis also helps to identify the places (territories), which offer poor accessibility to tourist attractions due to a lack of investment activities. This concerns both hotel and catering facilities (near natural or cultural sites) and specialist infrastructure, such as skiing facilities and water parks (in areas lying far away from existing competitive facilities). Another issue is promoting transport solutions themselves as tourist attractions. This predominantly concerns rail transport (cross-border lines). The category also includes supporting the setting up of tourist transport routes (mainly utilising existing roads) crossing winding from one side of the border to the other and providing access to a multiple tourist attractions.

Activities at the local level focus mainly on areas with a high existing or expected concentration of tourist flows. They are aimed at providing appropriate organisation of these areas, minimising environmental costs, improving the quality of services and, to an extent, connecting these areas to higher-rank transport systems. Of crucial importance here are such solutions as establishing special public transport timetables (e.g. late returns from mountain routes), provision of car parks, removing road transport from the central areas of some tourist towns and building bicycle routes.

2.5. CHANGES IN SOCIETY AND TOURISM

Changes in the society which occurred after 1989 have also brought rising standard of living after some time, which encouraged the use of increasing volume of free time and this also reflected in the development of some forms of tourism. Unlike in the past, several groups of societies in the post-socialist countries have more free time, which they devote to cultural and social events, sports and relaxation. As a result of fast and exhausting pace of life some groups of the society feel the need to make fuller use of their free time, which results in pressure on the entire tourism industry.

In the context of progressing globalization processes, new trends have been emerging, while many of them are only partially verified business processes, changes in the social sphere and dynamic development of territories suitable for tourism. Therefore it is important to closely monitor the process of globalization and analyse its consequences for tourism. By the end of the 20th century tourism experienced deepening of international cooperation following the general process of globalization in the world. This process was accompanied by the liberalization of movement of persons and development of competitive environment. Prognosis of the World Tourism Organization (UNWTO) says that by 2020 tourism will report the fastest growth in the regions of middle-eastern and southern Europe.

Direct impact of tourism on GDP and total number of workforce of the EU represents 4%; indirect impact on GDP accounts for 11% and on workforce as many as 12%. Therefore tourism plays an important role in the reviewed Lisbon Strategy. From the long-term perspective it may be noted that the annual employment growth rate reported by the accommodation and catering establishments (hotels, restaurants and cafes) in the last decades was almost always higher than the growth rate of overall employment.

Changes in the demographic structure of the Central European countries have a significant impact on tourism. The number of older people (at the age of 65 and older) is expected to keep increasing and the number of people over fifty who travel much more than in the past is expected to grow as well. The most significant increase is expected in the area of spa and health tourism as well as guided tourism introducing cultural and natural heritage. New and rapidly developing destinations offering innovative products and services keep emerging too.

Final consumption of households, which has grown more significantly both in Slovakia and Poland over the last twenty years, plays an important role in tourism. Expenditure on purchases of grocery items represented the greatest proportion of private consumption; however, expenditure on hotels and restaurants reported one of the highest growth rates. Purchasing power of the population of both Poland and Slovakia gradually increases and, thus, one may expect increased participation in tourism.

Quality of restaurant meals has improved mainly in big cities; generally speaking one may notice a positive trend in quality of accommodation facilities and development of information services.

Focus on passive outbound tourism, it means trips of the Slovaks abroad, is predominant in the activities of tour operators and travel agencies throughout Slovakia. Services of arranging holiday stays in Slovakia provided by tour operators and travel agencies have reported a declining trend.

The problem of tourism in Slovakia is not always sufficient quality of provided services, their insufficient complexity and unsatisfactory presentation and marketing activities. Coordination of both public and private sphere covering both business and non-profit activities has to be significantly improved.

Changing lifestyle and changes in economic conditions contributed to the fact that summer tourism and stays at water, spa and health tourism, winter tourism and winter sports, urban and cultural tourism and rural tourism and agro tourism became the main forms of tourism.

2.6. SEASONALITY OF TOURISM

The data on tourist traffic between Poland and Slovakia shows rather significant differences in seasonality between the Polish and Slovak visitors. While the Poles clearly prefer longer stays in Slovakia especially in winter (1st quarter), the Slovaks stay longer in Poland mostly in summer and autumn (3rd and 4th quarter). Most Poles arrive to Slovakia in summer (app. 55,000 in 3rd quarter) but for shorter stays. In case of the Slovaks the number of visitors is much lower throughout the year but more balanced. Unlike for the Poles, for the Slovaks winter is the least popular season for travelling. While the Poles in Slovakia prefer especially the mountains and water parks, for the

Slovakia Poland is mainly the destination of shopping and cultural tourism, which is not season-dependent. Therefore annual distribution of trips of the Slovaks to Poland is much more balanced with a small predominance of holiday trips (July – September) and decreased number of stays in the fourth quarter. The Slovak tourists who spend their nights in official collective accommodation establishments represent only a small group. In 2008 this group included only 36,400 people. The number of nights these people spent in Poland was 74,500 i.e. 2 nights per stay.

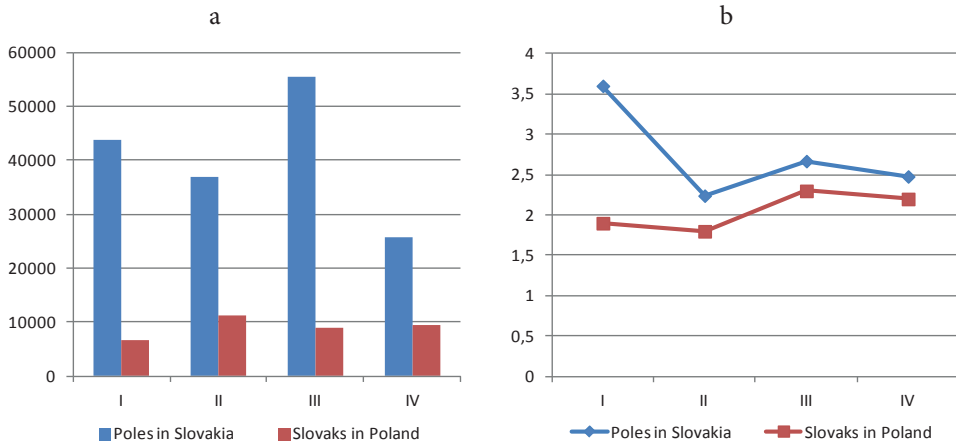


Figure 3. Seasonality of tourism, comparison of the Poles and Slovaks – a) number of visitors, b) average length of stay (2010)

Source: The Statistical Office of SR and the Central Statistical Office of Poland

The Poles mostly come to Slovakia during winter and summer seasons. Their interest in the country significantly declines in spring and autumn off-seasons. Especially in winter their seasonal behaviour is more significant than at visitors of other nationalities. While in off-season the number of Polish tourists represents a 2–3% share in terms of spent nights, in summer months this share increases to 4% and in winter to 8–10% (Fig. 4).

The Slovaks visit Poland more evenly throughout the year, which is also confirmed by the data provided by the Polish border guards, although the decline in number of tourists coming in winter revealed by this data is even more evident than in the data of the Polish Statistical Office. Reduced travel activity in late autumn and winter season (from November to February) is mainly caused by bad weather and worse road condition (snow, worse conditions for travelling by car). The number of persons crossing the border does not report any increase during the summer holidays. In the period from March to October the number of Slovak citizens crossing the border with Poland oscillates within the range of 270,000–340,000 people per month (Fig. 5).

The regional perspective shows stronger emphasis of the Žilina Region on winter tourism compared to the Prešov Region (Fig. 6). Higher values of the Žilina Region achieved in the 1st and 4th quarter are the result of higher concentration and capacity of

2. SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS

ski resorts in Slovakia – Jasná, Veľká Rača, Vrátna, Malinô Brdo, Martinské hole, Kubínska hoľa and others. Ski resorts in the Prešov Region are strongly concentrated only in the territory of the High Tatras. In spring (2nd quarter) the visit rates of both regions achieve similar levels; however, summer hiking mainly in the High Tatras brings more tourists to the Prešov Region compared to the Žilina Region.

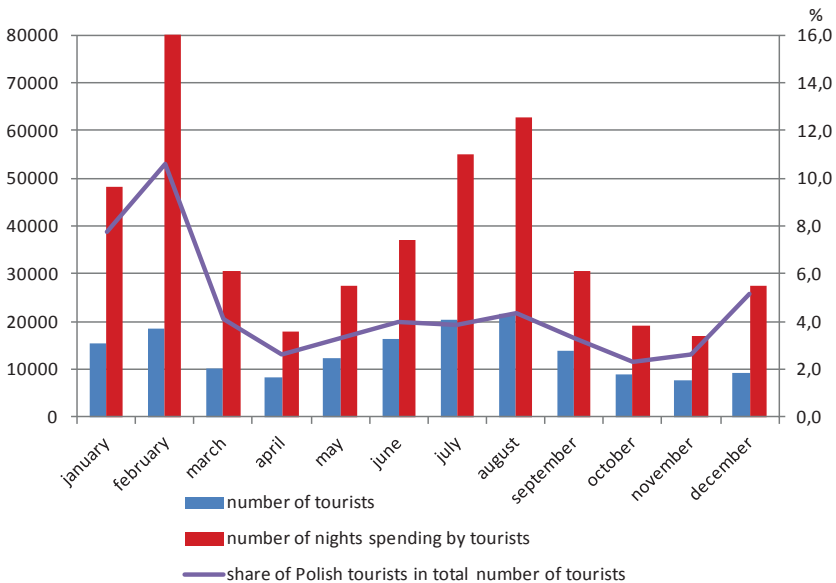


Figure 4. Visit rates of the Polish citizens staying in Slovakia (2010)

Source: The Statistical Office of SR

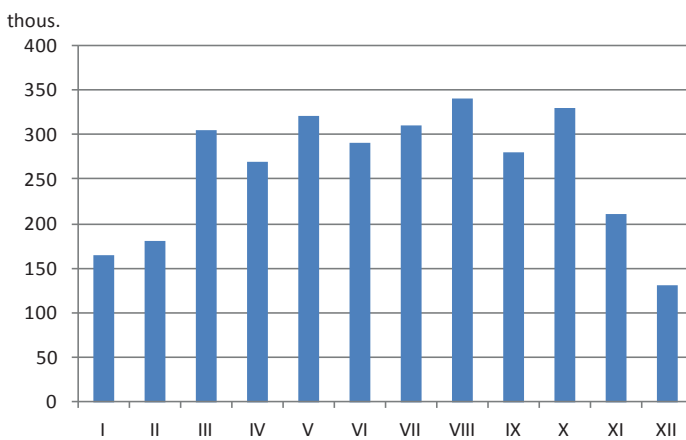


Figure 5. Number of the Slovaks coming to Poland in individual months (crossings the border) in 2007

Source: The Border Guards (Poland)

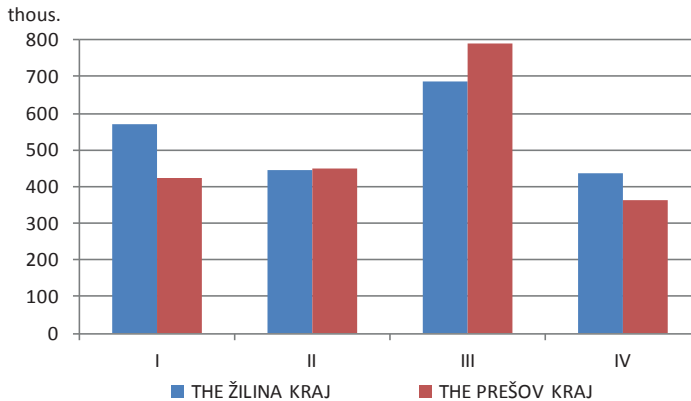


Figure 6. Seasonality of tourism in the Žilina and Prešov Regions in terms of the number of tourists spending nights (2010)

Source: The Statistical Office of SR

In addition to longer slopes, some Slovak ski resorts also offer well-maintained cross-country trails as well as a wide variety of other winter attractions – sledge trails, snow tubing, ice climbing, snowmobiling, snow rafting, driving a dog sled, snowshoe marches or paragliding. Despite the fact that winter is the main season for the mountain recreational resorts in terms of visit rates and income, increasingly growing emphasis has been placed on increase in income during the summer season. Since summer alpine tourism does not represent for the facility owners any significantly increased income despite higher numbers of visitors, they try to achieve higher income through new summer attractions, which require some additional infrastructure apart from the use of cable cars. The result is that in summer a lot of resorts allure their visitors with rope parks, aquazorbing, artificial climbing wall, bike riding, and scooter rental and so on. For resorts the corporate team-building attractions represent even greater source of income than winter – geo coaching, airsoft/paintball, archery, paragliding, ballooning and outdoor inflatable tower and so on. Other attractions, which encourage the use of cable cars, are available to the families with children – Karkulka (Little Red Riding Hood) in Jasná resort or Tatranská Divočina (Tatra Wilderness) in the High Tatras.

The gradual change in lifestyle of contemporary society towards greater flexibility and speed impacts the change in preferences and behaviour of tourists. The tourists are looking for more efficient use of their free time for recreation and entertainment. Despite the fact that the model of one-week vacations (either winter or summer ones) still persists to some extent, mainly in case of families with children, the majority of the working population prefers a higher number of shorter stays for a weekend or longer weekend. Declining average length of a tourist stay is a global trend, which has also been documented in the Polish-Slovak borderland. Weekend tourism regardless of the season is more likely to be developed in the western part of the borderland in terms of potential availability. The Tatra Region may success in increasing the number of short or medium-long stays in case the number of direct air connections with several sites of demand is increased as well. Starting in winter season 2011/2012 the Polish private

airliner EuroLOT was offering direct flights from Warsaw and Gdansk to Poprad every Thursday and Sunday; from April 2012 the flights have been rescheduled for Friday and Sunday. Development of weekend tourism in the Slovak part of the borderland will depend largely in the coming years on completion of the motorway network, particularly D1 motorway as well as other north-south connections such as D3 motorway, S69 expressway and R3/S7 and R4/S19 expressways.

2.7. SPATIAL DISPROPORTIONS AND EFFORTS TO OVERCOME THEM – OVERCONCENTRATION OF TOURISM AND ITS DEEPENING

As a rule, spatial disproportions in the development of social and economic systems are natural; as in any market economy they are determined by demand and supply fluctuations, which depend on a number of factors, including geographical location. This is clearly the case with tourism: some countries or regions abound in tourist attractions, while others are inhabited by a large number of potential tourists who would like to “consume” these attractions. The discrepancies lead to mass flows, with the most attractive spots attracting the greatest numbers of visitors. What can also be observed is that the greater and more attractive a tourist highlight is, the farther-reaching its impact. This suggests that the need for learning, for experiencing, or even plain curiosity are so strongly rooted in human nature that a visitor is ready to endure a very long journey to see exceptional scenery or monuments or experience thrilling moments.

In the Polish-Slovak borderland a few *poviats* and *okreses* can be identified with increased tourist flows compared to their respective area or population (Figure 7). On the Polish side of the border these include the *poviats* of Cieszyn, Nowy Sącz, Lesko and the Tatra *Powiat*, and on the Slovak side of the border such *okreses* as Turčianske Teplice, Liptovský Mikuláš and Poprad. In geographical terms they comprise the following regions: the Tatra Region (High Tatras and Low Tatras), the Pieniny-Nowy Sącz region, the Żywiec Beskids (with an extension to the Czech Republic), and selected areas of the Bieszczady Mountains (in Poland) as well as the Turiec Basin with the Lesser and Greater Fatra. In nine *poviats* (*okreses*) the overall recorded annual (2008) number of overnight stays exceeded the number of local residents by ten times or more.

As in any walk of social and economic life, the tourism concentration process has its good and bad points too. Undoubtedly, its main advantage should be linked to the benefits of agglomeration, which is a well-known concept in economics. In the most general terms, thanks to its scale and the resulting effects, an agglomeration gains advantage over other smaller destinations. Large tourist flows offer possibilities of specialisation, thanks to which the tourist product reaches a growing level of development, identifiable mainly by qualitative indicators. The bigger the tourism concentration area, the more good restaurants, hotels and specialised spa and wellness facilities one may expect. Theoretically, such places succeed not only because they are much more expensive, but because there is a high likelihood that they will attract the desired number of more affluent clients. Conversely, the smaller the tourist centre, the higher the prices one can expect in facilities of the same class. This is the case with tourism, or strictly speaking with the economics of tourism, but only to a certain extent. For example, the largest

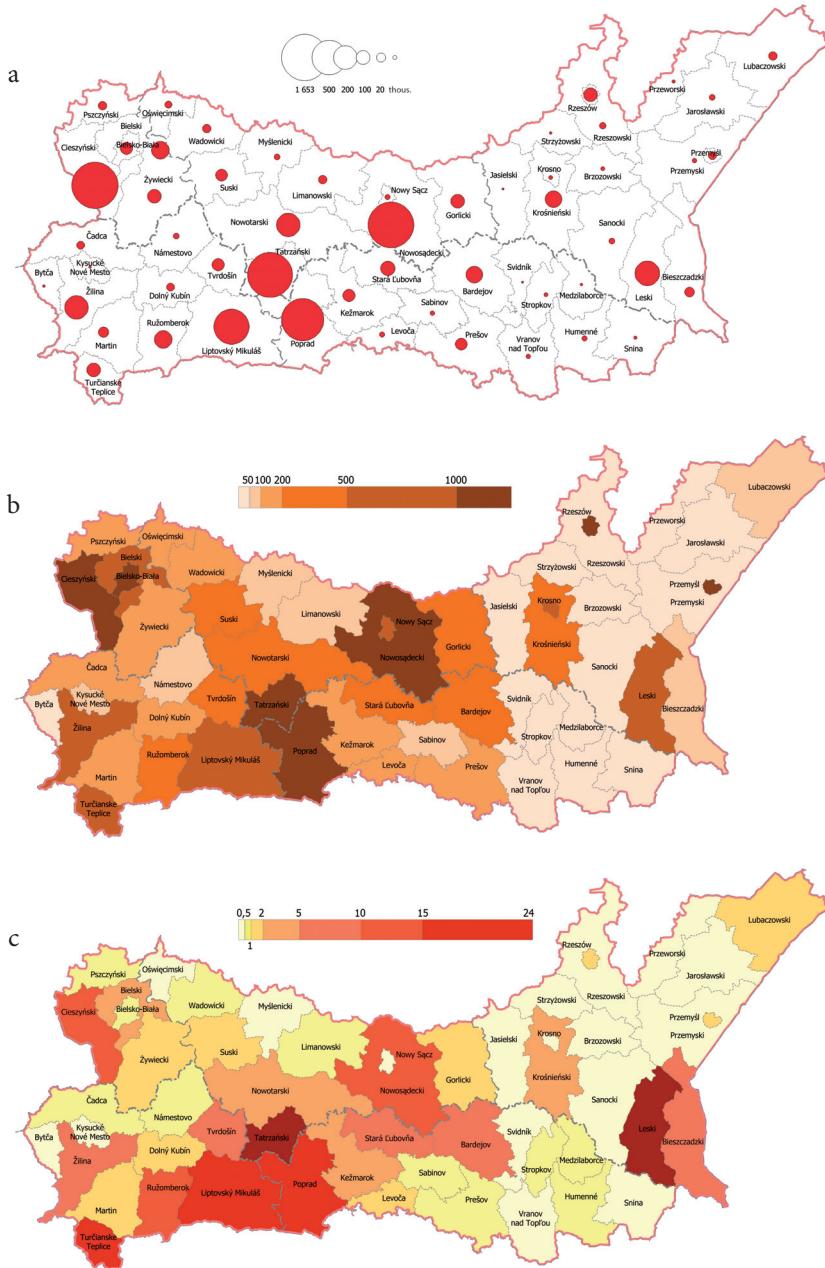


Figure 7. Tourism in the Polish-Slovak borderland by poviats
 a – absolute values; b – values relative to area (number of tourists per 1 km² annually); c – values relative to local population (annual number of overnight stays provided to visitors per 1 resident).

Data source: the Statistical Office of the Slovak Republic and the Central Statistical Office of Poland; own graphics.

tourist destinations in the Polish and Slovak Carpathians are at the same time the most expensive ones. This is due to the fact that their power of attraction and attractiveness is so huge that the demand exceeds the supply. Thus, instead of ensuring diversified prices, the services offered are targeted at richer clients. If the level of advertising were increased, prices in the most “fashionable” destinations would grow even further.

The mechanism of “digging deep into the tourist’s pocket” is stimulated by the widespread fashion for some attractive tourist locations. In Poland, the popularity of some spots, especially Zakopane and the Tatra Mountains, is driven by advertising and “product placement” in TV programmes and newspapers and on websites in pre-holiday periods, as well as by the appearance of celebrities in tourist sites, etc. The fashion for the Tatras can be observed even at the early stages of education – “the only true” Polish mountains have become the destination of mass school excursions, even from the other end of Poland. On the other hand, among more active groups of youths the Tatras have become a sort of a fetish, and in certain circles it is disgraceful not to know the most important spots and routes. This is also true, to a various, usually lesser, degree, of other regions. Depending on the period, Poland is overcome by a craze for the Pieniny Mountains, the Bieszczady Mountains and Babia Góra, and Slovakia for Štrbské Pleso, Tatranská Lomnica, the Demänovská Valley caves and its ski resorts (e.g. Jasná).

These most important reasons for popularity lead to the disproportionate concentration of tourism mentioned above. This brings us to a key point, i.e. the limits of growth. Indisputably, in many places, mainly in the Polish Carpathians, the limits have now been pushed very far. Specialist research, based on the methodology of the tourism carrying/absorption capacity, indicates that many spots are under excessive pressure. The best-known example is the Tatra National Park, which is quite simply trampled in the high season, both by professional and amateur tourists. There are times when climbing Giewont or reaching Morskie Oko requires queuing, as is the case with some caves and cableways in Slovakia. In these conditions, the key reason for tourist trips, i.e. the desire to commune with spectacular and unique nature, becomes a self-contradiction.

Undoubtedly, the attractiveness of some sites and scenery is attributable to their uniqueness. The Tatras are neither the biggest, nor the most diversified mountains in Europe. But in Poland, which is a lowland country, alpine landscape has always been unique, and the Tatras are second to none – hence their strong cultural impact, first among the artistic elites (the famous Zakopane bohemia), and then, after the Second World War, for the mass culture. Thus the impact of this unique combination of nature and culture reaches far beyond the state borders, being a popular destination for tourists from very “exotic” places, e.g. Russia or Japan.

On the other hand, there is a huge scenic and cultural potential in almost the entire territory of the Carpathians, which, apart from some areas, remain underappreciated and undeveloped. Comparing the aesthetic and scenic qualities to tourism intensity, Mariusz Kistowski and Przemysław Śleszyński (2009) show that the most underappreciated tourist destinations include such regions as Pogórze Jasielskie, Działy Orawskie and Beskid Orawsko-Podhalański.

What is important in managing tourism is the role of conscious marketing activities or prevailing fashions, the latter having the potential to create out of nothing a fascinating and desired tourist product, often sidetracking the truly valuable monuments or tourist attractions, which fall into oblivion or even into ruin due to lack of interest. We

are very much familiar with the example of churches in Podkarpacie, gems of architecture, perfectly fitted into the landscape, which used to be in very bad shape in terms of their restoration and survival, etc. The situation changed only when some of them were registered on the UNESCO World Heritage List. It seems that without appropriate marketing activities it will be difficult to convince current or new visitors to choose less crowded but equally interesting places.

Importantly, issues related to the overconcentration of tourism are revealed within 10 years of the opening of the expressways from Warsaw southwards. Once the driving conditions improve substantially and travel times shorten, one can expect even more crowds of tourists in the area of Zakopane.

It is also important to adopt a holistic geographical and economic approach to tourism development in the context of existing and desired tourist streams. It seems there are too few initiatives likely to present the northern parts of the Carpathians as a cohesive and complementary tourist region. It is worth stressing that such an approach would reflect the logic of the National Spatial Organisation Policy 2030, which not only focuses on the need for a strategic integrated planning, but also indicates the functional areas, which should be addressed by future spatial and regional policies.

The above considerations also imply that there is a need for more integrated activities. The conclusions presented in the draft document point to the need for actions towards formulating a common tourism development strategy for Poland and Slovakia, and establishing several regions of enhanced cooperation. The policy should be based primarily on an in-depth diagnosis of the tourist potential in terms of strengths and tourist facilities. Only on that basis will it be possible to formulate effective tools for mitigating the impact of excessive tourism concentration, make more reasonable use of the assets and organise tourist flows in a better way, and, as a consequence, ensure a rational tourism economy and more effective growth.

2.8. THE ROLE OF DEMAND AND SUPPLY FOR TOURISM DEVELOPMENT – SELECTED METHODOLOGY EXAMPLES

Chapter 2.7 argues that the most important factor behind tourism development is the absolute figure and the ongoing demand-supply interrelations. As regards tourism, both these market components are particularly difficult to identify and measure in a precise manner. Nevertheless, obtaining a satisfactory answer will allow tourism economy to be managed in a much more efficient manner.

Generally, in the tourism sector demand is created by actual and potential visitors, while supply means the identifiable number and quality of tourist attractions. This approach was taken in the abovementioned study of the Polish-Slovak cross-border cooperation area prepared by the Institute of Geography and Spatial Organisation of the Polish Academy of Sciences and the Institute of Geography of the Slovak Academy of Sciences.

The demand analyses were based on the main premise that the most important determinant of demand is the temporal accessibility of the individual tourist destinations. For a potential visitor, one of the most important factors in choosing the holiday destination or, in more general terms, the leisure destination, is the possibility of reaching it within a specific time. Naturally, the longer the stay, the longer the acceptable travel

time. Only exceptionally motivated visitors will travel for a whole day (i.e. around eight hours) to spend a night and the following day in a place, only to leave it on the morning of the third day and return home for the night. The above example is to highlight the importance of time distance for short stays, e.g. weekend trips. In such cases, the choice of destination is largely determined by the time of travel and return. As shown by research in Western countries, in the case of weekend peregrinations a two- to three-hour travel time is a limit beyond which the motivation to travel for leisure purposes drops dramatically. In Poland, due to the bad condition and slow construction of fast traffic roads (motorways and expressways), the acceptable travel time is longer, namely approx. four hours.

Figure 8 presents a diagram showing the size of population depending on the distance from Zakopane. The analysis takes into account the visitors' origin in terms of country of residence. This information may be useful in view of the possibilities for offering more diverse options for the different categories of tourists.

A total of 447 thousand people live within the 1-hour isochrone from Zakopane. They are mainly Poles (316 thousand) and Slovaks (131 thousand). Within the next isochrone (1–2 hours), the number of inhabitants increases to as many as 4 million, the majority of whom are also Poles. A small number of inhabitants of the Czech Republic also appear within this range. Within the 2–3 and 3–4-hour isochrones there are already Czechs and Hungarians, 4–5 hours – Ukrainians and 5–6 hours – Germans. In total, there are 13.1 million people in the area located within a three-hour journey to Zakopane. This figure goes up to 40 million for the area located within a five-hour journey to Zakopane. As many as 175 million people live within reach of the 10-hour isochrone (this encompasses the whole area of Poland, Slovakia, Hungary and Austria, as well as most of the territory of Germany) (Fig.8). By 2030 the population figures within particular isochrones will increase considerably as a result of the implementation of road projects. There will be 21 million people within a 3-hour journey and 41.7 million within a 4-hour one.

The graphic calculations presented show how methodically significant it is to take into account various elements in the demand analysis and how important the detailed nature of these calculations is. The quantity of overnight accommodation sold within the 120-minute isochrone is similar in particular variants and the difference comes from cumulative values in shorter isochrones.

In practice, applying such wide-ranging analyses to quantify potential demand is pointless, as with such great distances and figures there are other deciding factors than the classical powers of gravity. More useful are analyses covering a shorter timescale and showing simulations of demand for the different variants, depending on the status of road system development and demographic projections. Figure 9 presents an example of such an analysis. The town of Liptovský Mikuláš was chosen because it has one of the biggest water parks in this part of Europe – Tatrlandia – which has a great power of attraction. The analysis shows the impact of the whole range of road system extension variants in the project. The studies were performed for the following three time horizons: 2010, 2015 and 2030 (see Chapter 3).

Understandably, Variant C, which is the targeted transport system, involving all the planned developments, is of the greatest benefit. Interestingly, the population size growths are nearly identical for Variant I (Kraków-Zakopane expressway connecting to

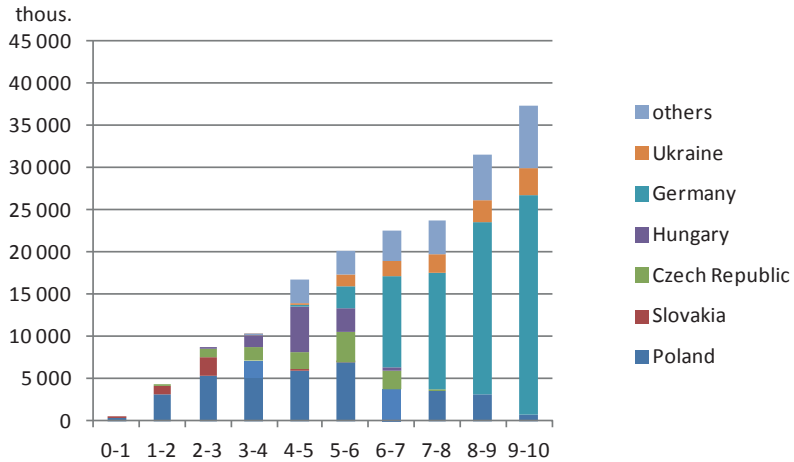


Figure 8. Population size and structure according to country of residence within a one-hour isochrone of access to Zakopane in 2010.

Own study.

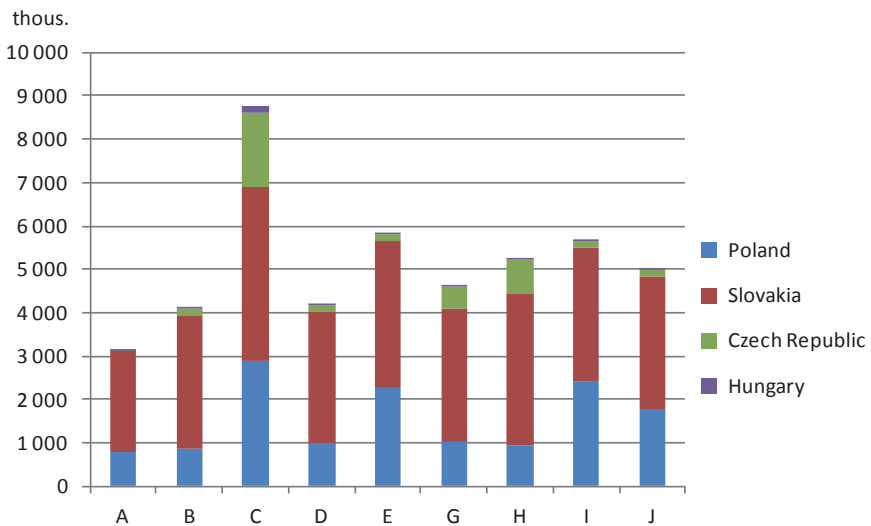


Figure 9. Influence of expansion of the road network in the variants analysed on the population size within the 2-hour isochrones from Liptovský Mikuláš

Description of variants: A – 2010; B – 2015; C – 2030 official, government; D – the S7 Kraków–Rabka–Zakopane expressway; E – the Kraków– Banská Bystrica expressway; G – the Bielsko-Biala–Žilina expressway; H – completion of the whole D1 motorway along with the investments on the Czech side of the border; I – the Kraków–Zakopane expressway along with the tunnel under the Tatras connected on the Slovakian side with the D1 motorway; J – the Tvrdošín–Czarny Dunajec–Piwniczna bypass road with considerably increased technical and operational traffic parameters;

Own study.

2. SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS

the Slovak D1 motorway with a tunnel under the Tatras) and for Variant E (Kraków – Banská Bystrica expressway). Detailed analyses indicate that Liptovský Mikuláš would benefit the most from attracting higher numbers of visitors (Figure 10), i.e. Variant I, because for such highlights as water parks it is good to use, apart from traditional population numbers, the number of tourists staying in the area. This category of visitors generates a stronger demand than residents.

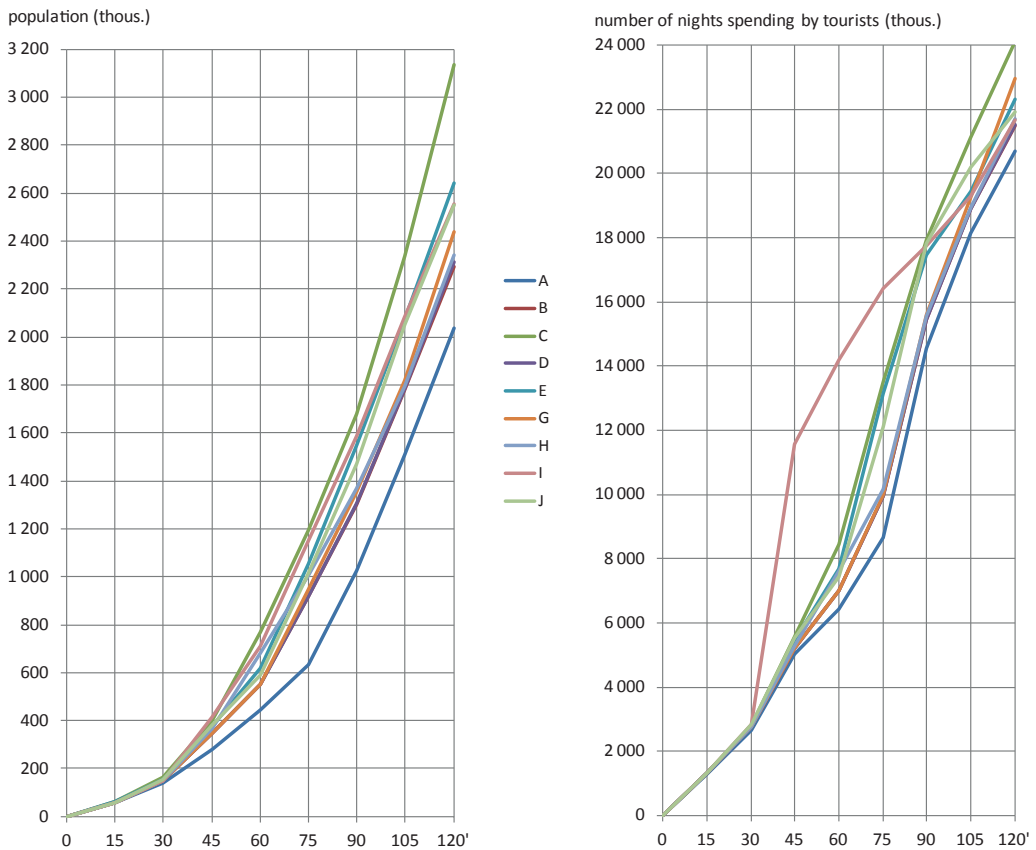


Figure 10. Influence of expansion of the road network via the variants analysed (A-J) on population size and the quantity of overnight accommodation sold within the 2-hour isochrone from the town of Liptovský Mikuláš

Description of variants: A – 2010; B – 2015; C – 2030 official, government; D – the S7 Kraków–Rabka–Zakopane expressway; E – the Kraków– Banská Bistrica expressway; F – the Rzeszów–Košice expressway; G – the Bielsko-Biała–Žilina expressway; H – completion of the whole D1 motorway along with the investments on the Czech side of the border; I – the Kraków–Zakopane expressway along with the tunnel under the Tatras connected on the Slovakian side with the D1 motorway; J – the Tvrdošín–Čarný Dunajec–Pivniczna bypass road with considerably increased technical and operational traffic parameters; Own study.

The clear change shift in visitor figures in Variant I indicates that the planned construction of a tunnel under the Tatras (it is not the point of this study to address its feasibility, but to answer the question about the likely comprehensive impacts of this highly futuristic project) would certainly increase the “drain” of tourists spending the night on the Polish side.

The analyses may cover a larger number of tourist spots and the outcomes of the various road construction projects may be compared (Figures 11 and 12). From the 2015 investment perspective the changes amount, on average, to a growth in population within the 0–60 minute zone of 9% (this growth is largest for the localities of Jasná, Poprad and Zwardoń – around 25%). From the 2030 perspective (variant C – government plans), on the other hand, the population growth is much higher (59%) and the increase will be greatest for the localities of Oščadnica, Žilina, Zwardoń and Żywiec (but not for Wisła, for instance).

Initially, the changes affecting the 60-minute isochrone are not large, but they grow considerably over the longer time span. The record-breaking absolute values concern Żywiec, in whose case the population size within the isochrone analysed would exceed 2 million. A double increase of the isochrone reach results in the increase the expected benefits to a maximum of 5.8 million people (Żylica).

The calculations show that the extension and modernisation of roads by the year 2015 will benefit the Slovak tourist destinations more, whereas further on (by 2030), it is the Polish destinations that will gain more. However, the projected future competition within the one-hour isochrone between Poland and Slovakia is poor, with both countries substantially benefiting from the Czech market.

To sum up the demand analyses, it is worth noticing that the population size used in the calculations is not an ideal demand indicator. This is because most of the tourists are people of a better financial standing, usually big city residents. Therefore, in analysing time accessibility it is convenient to apply matrices of travel between the point of origin and destination (Table 3). The data in the table show the changes to take place in terms of accessibility as a result of the future road network development.

Table 3. Car travel times (in minutes) between selected major cities and tourist destinations in 2010

	Bańska Bystrzyca	Katowice	Koszyce	Kraków	Rzeszów
Bardejov	185	179	70	148	114
Liptovský Mikuláš	72	165	111	138	211
Poprad	102	156	96	129	196
Zakopane	135	113	147	86	204
Żywiec	143	77	207	85	205
Cisna	258	243	143	213	113
Jasná	88	183	127	156	227
Krynica-Zdrój	183	153	97	123	126
Solina	276	231	161	200	89
Kežmarok	115	146	91	119	185

Own study.

2. SELECTED TOURISM AND TRANSPORT DEVELOPMENT PROBLEMS

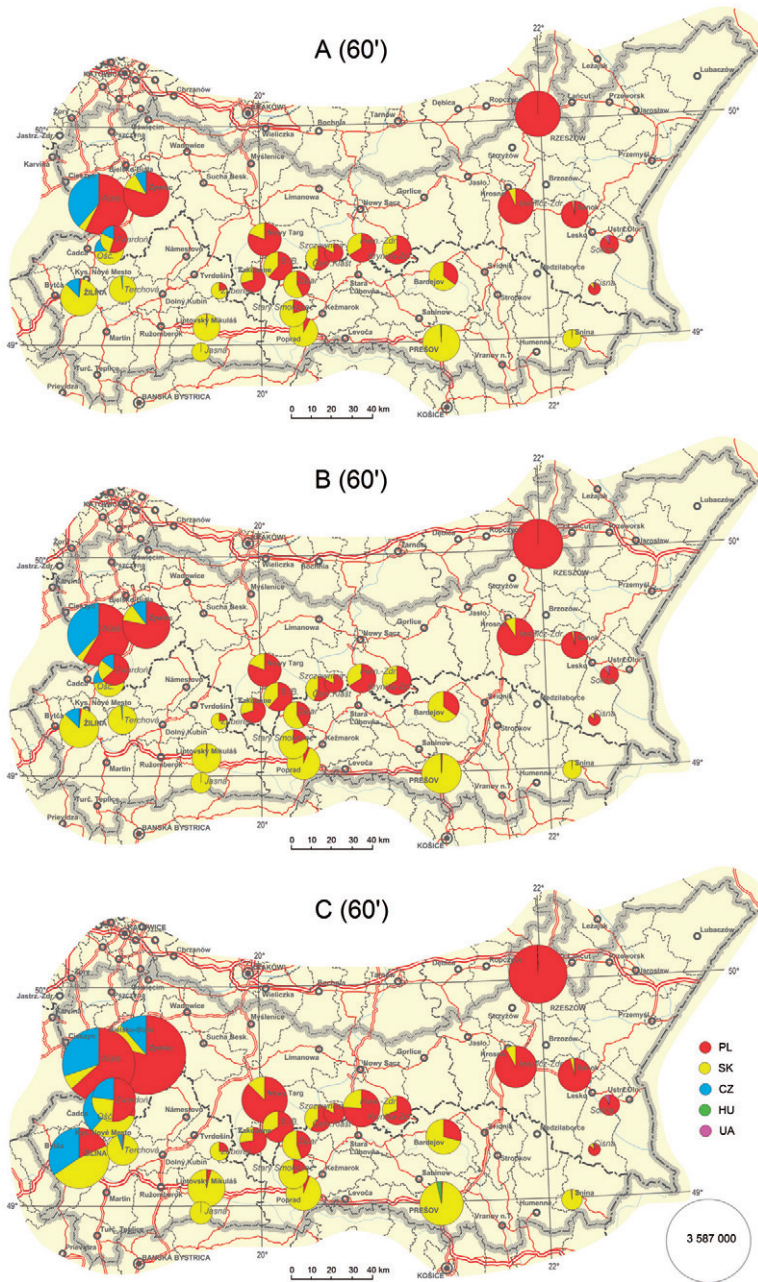


Figure 11. Size and structure of population according to country of residence within the one-hour isochrone from 27 selected tourist destinations in the A (condition in 2010), B (2015), C (2030) variants for the development of the road network (resident country acronyms consistent with official international abbreviations)
Own study.

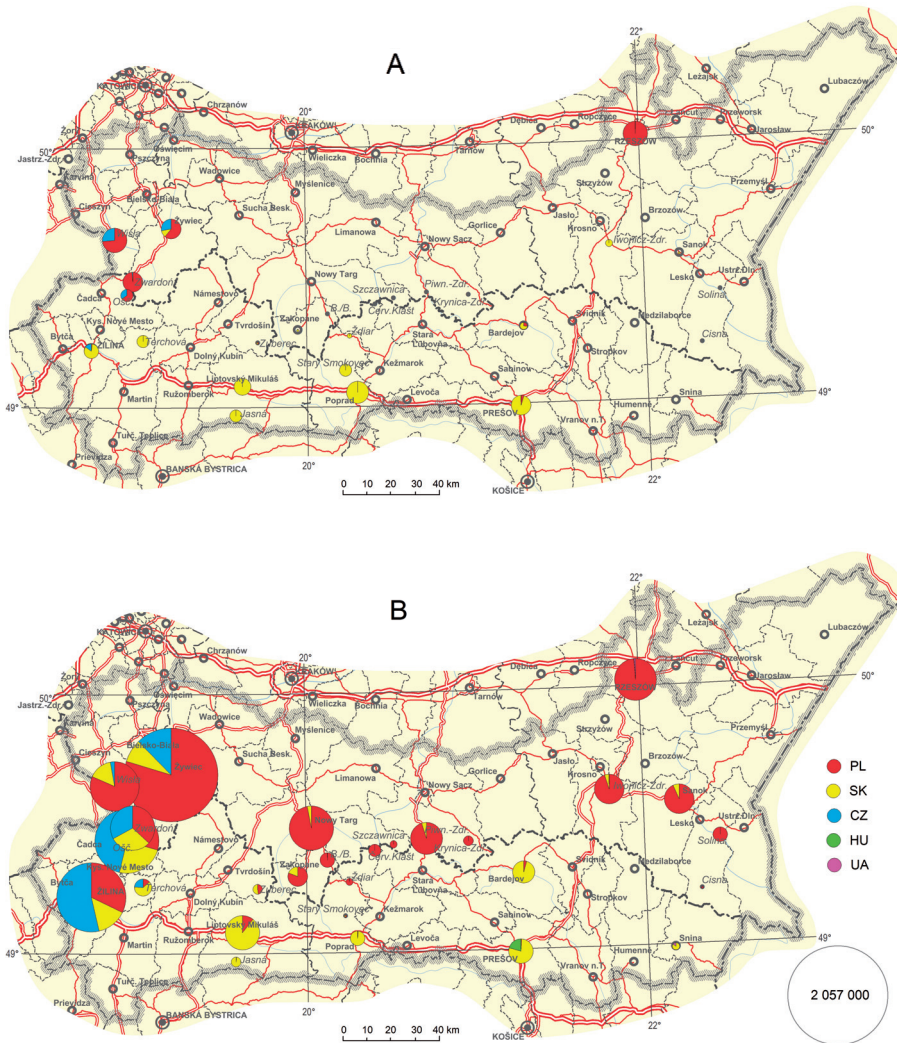


Figure 12. Increase in the size of population and its structure according to the country of residence within the one-hour isochrone from 27 selected tourist destinations in the A (difference between 2015 and 2010), B (difference between 2030 and 2015) variants of road network development
Own study.

Supply studies are yet another type of analyses. They show the number and types of attractions accessible within a given time distance. In this case, they are based on a list of 1849 attractions identified within the study area, classified into eight type categories and three size categories. The numbers of the different categories of attractions were calculated for isochrones distanced 15 minutes from each other for 27 selected tourist areas. Figure 13 presents the accessibility of these attractions within 15-, 30- and 45-minute isochrones. In general, the first isochrone depicts accessibility for tourists

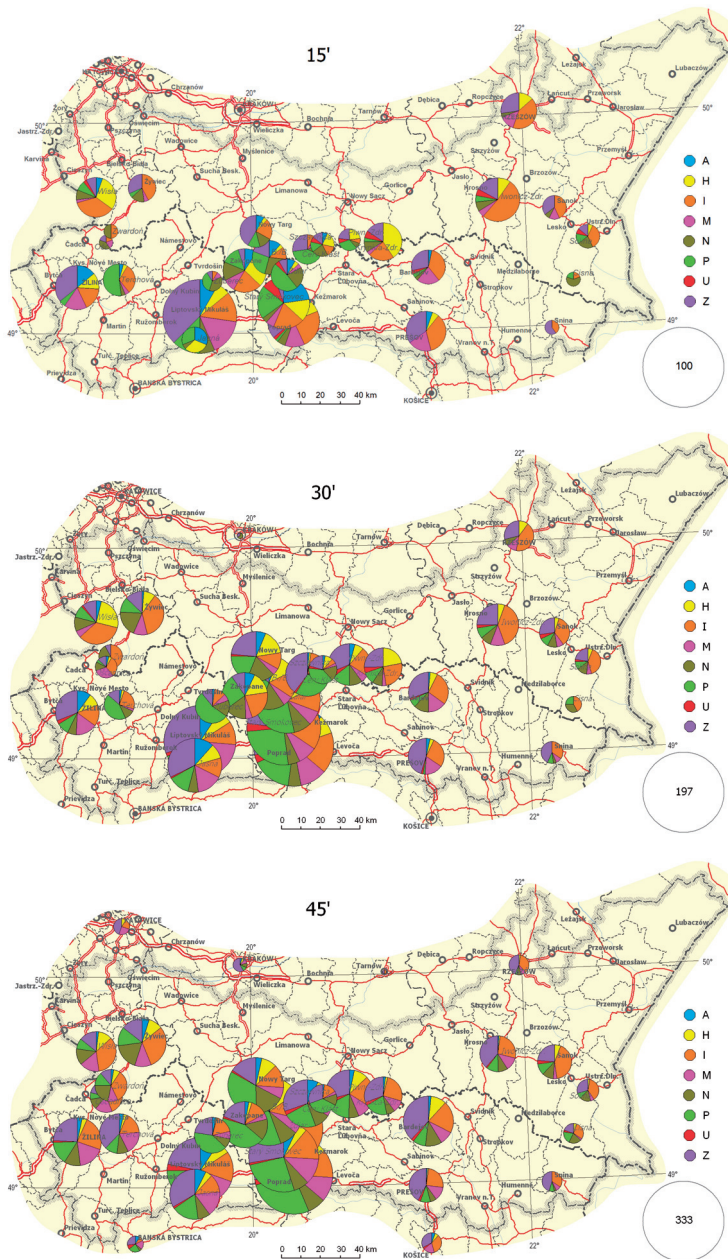


Figure 13. Number of attractions within the 15-minute (A), 30-minute (B) and 45-minute (C) isochrone for selected tourist localities according to the division into kinds of attraction in 2010

A – aquaparks; H – 4 and 5-star hotels; I – events; M – museums; N – ski destinations; P – natural attractions; U – health resorts; Z – cultural heritage monuments

Own study.

within the place of temporary residence, and the other two require additional effort, i.e. extra travel at a higher time interval. The maximum travel time of 45 minutes seems to be the intuitively acceptable limit, allowing a satisfactory tourist penetration from the place of temporary residence.

2.9. COMPETITION-COMPLEMENTARITY-COOPERATION

Spatial interactions result from a range of aspects and reveal the specificities of the interdependence between phenomena and the way they function. As regards tourism, interactions usually occur between the emission areas and reception areas, and are based on transit (transport). Something that impacts interactions is the very fact of human mobility (and thus the size and frequency of tourist flows). The directions and volumes of these flows are determined by a range of factors, notably the attractiveness for visitors, accessibility by transport and price, the latter being the factor regulating exchange.

The diversity of attractiveness, people's possibilities and needs, as well as the possibility of reaching tourist destinations determine the variety of competitive processes. In the course of evolution, waves of competition between units roll after one another, while the behaviours of these units are coordinated by higher hierarchy levels. The competition for resources between units at a given hierarchy level should ultimately be replaced by coordination. This is required to ensure system survival and effectiveness. Once competition at a given level is replaced by coordination, a new, higher level is created, where again competition originates between higher-rank units. The process repeats across the successive levels of hierarchy. Competition between units is advantageous, as it brings in diversities and enhances the effectiveness of activities. If unlimited, however, it may destroy the system as a whole. Therefore it must be subject to coordination.

One may differentiate between three primary motivations, which make units cooperate with one another towards creating a system. These include: feeling threatened, benefits of an exchange, and conscious integration. This is also the case with tourism. Individual towns cannot function efficiently, attract visitors and ensure sustainable growth by acting alone. They join forces with the neighbouring areas (e.g. through common marketing). Meanwhile, integration may occur, which means that the region goes up to a higher level, but at the same time starts competing with similar neighbouring regions. The situation is unique in borderland areas, where competitiveness is additionally enhanced by the existence of tourist spots on both sides of the border with similar resources, as is the case with the Polish-Slovak borderland. In this case, the resultant competition may be destructive. Following a potential integration of the entire borderland of both countries (which is hardly ever the case), the borderland starts to compete with other border areas. The situation is the same, but at a higher spatial and organisational level.

Local competition is understood as efforts towards promoting one's own town in competition with other towns, but also the capacity to succeed in economic rivalry. Therefore what is important is the region's ability to build its own economic structure, which, in the long run, guarantees development and high revenue for those regions, which are effective. For regions, competitiveness is their capacity to adjust to changing conditions by maintaining or improving their position in the on-going rivalry between

regions. The efforts take different forms: developing local marketing by the authorities, supporting local businesses, building infrastructure to improve local attractiveness for investors, and disseminating information about the economic potential. Important in tourism development is cooperation between towns, especially small ones, as they are not capable of attracting or ensuring a sufficient level and diversity of tourist services on their own. What is needed is coordination of any tourism-related activities in the borderland, i.e. on both sides of the border.

Competition takes place between towns in the same region, between regions in the same country and between towns and regions from neighbouring countries. On a wider scale, there is also competition between more distant regions, as the goal of tourist destinations is to attract clients, i.e. tourists. Tourists have a wider range of possibilities and choices of destinations worldwide. Specialisation helps regions, among others, to create a clearly specified product, becoming a catchword for tourists. A key element here is the length of stay. Logically, areas that are poorly accessible and located far away from the sources of potential customers cannot count on visitors with a limited time of stay available. The choice of destinations by tourists is of crucial importance. If visitors do not choose a given area as their tourist destination, the area loses clients and consequently its development is hindered or may even turn into a recession. Strong, recognised and well-known areas rank higher in the hierarchy of choice and may be considered in choosing the tourist destination on equal terms with higher-ranked areas. Tourists may opt for places according to the criterion of geography or function, with clearly specified goals of their stay.

Moreover, competition means competing for specific groups of customers (in view of their time and functional needs and place of origin). Also the local authorities compete with investors seeking locations suitable for a wide range of infrastructure projects and tourism-related and supporting services. They compete on uneven terms, as investment capital is mobile (similarly to tourists), while towns are not. In order to attract investors, similarly to domestic and EU funds, towns use a range of incentives and programmes compete with one another, often affecting development in the region as a whole. In order to attract investors, the authorities reduce taxes, develop the technical infrastructure and provide other amenities. However, this causes redistribution effects – in our case, the flow of public funds to the private sector. What is more, in using domestic or EU funds regions are often driven by their egoistic willingness to deliver an investment project, which is in conflict with the projects in the neighbouring administrative units. This type of competition often leads to wasting of funds. The outcomes of fund use are often incoherent and create neither networks nor hierarchies, as is the case with bicycle paths co-financed by EU funds (they are built in short sections by different administrative units, which means they are not connected and do not create any routes at all). The positive impact of cross-border cooperation for tourism development is diversified and gives the following benefits:

- it provides opportunities for partners to operate over vaster areas, benefit from an increased tourism penetration area and attract greater numbers of visitors
- risk sharing by many businesses, economies of scale
- peer learning processes, wider range of services, absorption and dissemination of innovations
- public-private partnership, which is almost indispensable for tourism to operate.

2.10. COORDINATION OF THE DEVELOPMENT AND PROMOTION OF TOURISM IN REGIONS OF SLOVAKIA

The Act No. 91/2010 about support to tourism in wording of later issued provisions is an important document, which regulates support to tourism in the Slovak Republics, rights and obligations of natural persons and legal persons active in tourism, preparation of conceptual documents and funding of the development of tourism. Pursuing this Act, after it was amended as of 1 Dec. 2011, regional (*Krajská organizácia cestovného ruchu* – KOOCR) and local (*Oblasťná organizácia cestovného ruchu* – OOCR) tourism organizations were progressively established. The aim of regional organizations is cooperation between various entities active in travel and tourism (municipalities and business entities). Organizations are entitled to a subsidy from the government provided they comply with the requisites laid by the law.

The number of KOOCRs is limited (each region shall be represented by a single KOOCR), and among its members, apart from the higher territorial unit (self-governed region), there must be of least one OOCR. In case of OOCRs, rules are more liberal. Establishment of an OOCR is initiated by territorially contiguous municipalities. The membership must consist of: a) at least 5 municipalities with a minimum of 50 thousand overnights a year or b) less than 5 municipalities with a minimum of 150 thousand overnights a year. At least two business entities must participate in an OOCR. Although a municipality may not be member of various OOCRs, several OOCRs may exist within a natural tourist region. Hence, coordination of promotion of tourism in a region is often challenging. The most prominent from this point of view are regions of Vysoké Tatry, Spiš and Pieniny with five OOCRs (*Región Vysoké Tatry*, *Vysoké Tatry – Podhorie*, *Severný Spiš – Pieniny*, *Spiš a Tatry – Spiš – Pieniny*). Local tourism organizations *Liptovský Ján Turizmus*, *Jasná*, *Horný Zemplín* and *Horný Šariš*, *Malá Fatra*, *Rajecká dolina*, *Región Liptov*, *Organizácia cestovného ruchu Kysuce*, *Turiec – Kremnicko*, and *Klaster Orava* situated in the Slovak part of the boundary are also registered.

The proved tool of coordinated promotion of entities involved with travel and tourism are the regional tourist cards. The first regional discount card was introduced by Klaster Liptov. It offers via the Liptov Region Card a discount to more than 50 tourist services and attractions in the region. The regions of the Tatras (Tatry Card), Orava (Orava Pass) and Turiec in winter (skipas Turiec) also offer regional cards.

2.11. CONCEPT OF CLUSTERS AND CLUSTER INITIATIVES

Efforts to address social and economic development of any regional units through their economic growth, which is expected to result in increased material well-being of local population, are one of the key tasks of the business sector and state and public administration authorities. They search for solutions which would be able to bring satisfactory results. One of the ways of achieving success is deployment of the concept of clusters.

Despite the fact that cluster is a relatively new term, it does not describe brand new, unknown phenomenon. Nowadays a cluster describes strong tendency of economic activities towards spatial (geographic) concentration. The term was introduced by American economist M. Porter (1998), who presented cluster not only as an analytical concept

but also as a political tool to achieve competitiveness of mainly industries and spatial units. Porter (1998) defines clusters as “*geographic concentration of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated institutions (e.g. universities, standards agencies, trade associations) in a particular field that compete but also cooperate*”. What makes the cluster a single unit are either the supplier-consumer relationships or shared technologies, common buyers or distribution channels or shared labour market. The emphasis is clearly placed on existence of relationships between the participating actors. The second equally important feature of the cluster is the geographical proximity of groups of interconnected companies, which is a precondition of intense inter-company and inter-personal contacts.

Why is the concept of clusters so widely used? Probably because the concept of clusters is associated with competitiveness (efficiency, productivity, innovation) of companies, industries, states and, moreover, locations and regions. Another reason lies in the fact that the concept of clusters as a way to achieve economic prosperity and well-being gained immense popularity among the representatives of decision-making sphere at all hierarchical levels (national, regional, local) as a result of extremely successful marketing strategy. Last but not least popularity of clusters is also interconnected with their unusually broad and flexible definition, determination and understanding. Thinking of clusters, which is almost exclusively presented in positive terms, becomes in many cases a “way of thinking” about appropriate industrial and spatial groups which could lead to competitiveness and innovation.

LIPTOV CLUSTER – 1ST TOURIST CLUSTER IN SLOVAKIA

Emphasise on competitiveness, prosperity and sustainable development of the member countries and their regions declared by the European Union resulted in project “Žilina Innovation Policy” (part of the Regional Innovation Strategy of Žilina Region) prepared by the representatives of the regional self-government of Žilina Region in cooperation with a local university and partner organizations in 2005. The objective of the project was to create environment supporting regional potential, promote cooperation between the existing institutions and organizations and create strategic development framework, which would encourage the existing companies to implement further innovations. The document presents “Clusters and Partnerships” as one of the projects, which promote building of innovation infrastructure. Implementation of this project is expected to support not only cooperation of companies but also increase international competitiveness. Creation of the very first tourist cluster not only in Žilina region but in entire Slovakia is presented as the actual result of the referred activities. Organization named “Liptov Cluster – Tourist Association” was founded in April 2008. On its web page (<http://www.klasterliptov.sk/>) the association writes that it is “the first destination management organization (DMO) in Slovakia and joint marketing centre for destination Liptov. The organization associates entities from both public and private sector in order to arrange uniform promotion of Liptov region as a unique “green” region for active leisure rich in experiences.” Founders of the organization, name of which contains the word “cluster”, are all three cities of Liptov (Liptovský Mikuláš, Ružomberok and Liptovský Hrádok) and four major tourist resorts of super-regional importance – Aquapark Tatralandia, Thermal Park Bešeňová, Jasná Nízke Tatry and Ski Park Ružomberok. The founding entities financially support the newly created organization, strategic goal

of which is to double visit rates of Liptov by 2013. Ambition of the organization is “to get Liptov with its activities to the map of sought European destinations, promote Liptov under a single brand both at home and abroad, create competitive products of tourism and encourage active cooperation in the region.” Activities of organization “Liptov Cluster should be, thus, aimed at professional coordination of development of tourism in Liptov, in the region with relatively high levels of tourism development.” When creating the organization, it was assumed that targeted regional marketing will support increasing interest of domestic and foreign clients in visit and discovery of this part of Slovakia.

But what is the region of Liptov like? Let’s try to describe it briefly. Liptov, one of the historical regions of Slovakia is situated in the north of Slovakia and its northeast part touches the Slovak-Polish state border. From the point of administration it belongs to Žilina Region; the area of 1,970 km² consists of two former counties – Ružomberok and Liptovský Mikuláš.

Geographically, Liptov is an ideal example of natural, social and economic unit of elliptical shape with longer axis in west-east direction. Its central part – Liptov Valley – is surrounded by the major mountain ranges of Slovakia. County borders follow the ridges of the following mountains: the Low Tatras and Kozie chrbty (southern part), the Western Tatras, Chočské vrchy (northern part) and Greater Fatra (western part). The fact that the Low Tatras, Greater Fatra and Western Tatras were declared the territories with the highest degree of protection of nature and landscape – the national parks or parts of national parks – testifies of unusual natural value of these mountains.

The Slovaks but also foreign tourists perceive Liptov primarily as a region of extremely high natural and landscape value (folk architecture and folk traditions), a region of origin of the Slovak culinary speciality – potato dumplings with sheep cheese and home of bandit and Slovak national hero Juraj Jánošík (1668–1713). Good accessibility also contributes to the attractiveness of Liptov.

Population of Liptov (133,000 inhabitants) is concentrated mainly in the valley of the Váh River in central part of the region. Peripheral parts of the region at higher altitudes are either unpopulated or populated only sparsely. The majority of population (almost 72,000 = 53.7%) live in three cities (Liptovský Mikuláš, Ružomberok and Liptovský Hrádok), which are the founders of organization “Liptov Cluster – Tourist Association” as already mentioned. In terms of population, the biggest city in the region is Liptovský Mikuláš (33,000 inhabitants) which belongs together with Ružomberok (almost 31,000 inhabitants) among medium-sized cities in Slovakia. Liptovský Hrádok is a smaller town at lower hierarchical level (around 8,000 inhabitants).

Representatives of the cities realize that despite the cultural and historical monuments, the main reason for visiting the cities is the proximity of attractive recreational resorts, which also belong to the group of founders of “Liptov Cluster” organization. The resorts represent the private business sector (together with the cities they represent an example of a sort of public-private partnership) and their activities are complementary. Aquapark Tatralandia which is located in the cadastral territory of Liptovský Mikuláš is the largest park offering water fun not only in Slovakia but also in the Czech Republic and Poland with its 11 pools and numerous water slides. The park uses the source of thermal water (60.7 °C), which allows its year-round operation and was the reason for building a facility offering variety of services in order to provide visitors with

overall physical and mental relaxation. Thermal Part Bešeňová, located in the cadastral territory of rural village about 12 km away from Ružomberok was constructed with the same goal and on the same basis. Both economic entities may serve as a typical example of horizontal competitive and cooperative relationships in the established cluster.

The resorts specialising in winter sports, Jasná Nízke Tatry and Skipark Ružomberok, represent less balanced pair of the founding members. The first mentioned is located near Liptovský Mikuláš in the cadastral territory of rural villages and the National Park Low Tatras. It is the most popular and largest resort offering winter sports in Slovakia. However, the ambitions declared by the management include further economic growth. They want to turn the ski resort not only into the best ski resort in Eastern Europe but through diversification of activities they also want to achieve its more balanced use all year round. The result is expected to reflect in an increase of visit rates, sales and profit. The resort belongs to the tourist resorts of the highest category with international importance. Ski resort Skipark Ružomberok, whose natural potential and resulting opportunities of spatial expansion are considerably lower than in Jasná, belongs to the same category. Despite the fact that Skipark Ružomberok belongs to smaller ski resorts, it is the resort with the highest scores in Slovakia. It is located in the cadastral territory of Ružomberok (with the typical rural settlements representing its part) and the National Part Greater Fatra. Managers of the resort have adopted the same strategy for future development as the managers of Jasná resort – they try to diversify the activities and thus achieve more balanced visit rates throughout the year. Similarly as regional resorts in Liptov utilizing thermal water sources, regional ski resorts in Liptov can also be considered the entity of horizontal competitive and cooperative relationships in the established cluster.

It is obvious that definition of tourist clusters should not end up with a common marketing strategy. A real cluster clearly should not be only a brand of organization, which uses the word “cluster” in its name and offers regional tangible and intangible products. It is mainly the tourist cluster, a phenomenon based on existence and gradual improvement of horizontal and vertical relationships between participating actors. In a time of economic prosperity the result is not only a reasonable profit of the group and its members but also functioning regional economy¹. It is good that representatives of Liptov Cluster think this way and their ambitions and subsequent steps could lead to even higher satisfaction of visitors to Liptov.

2.12. TOURISM, SUSTAINABILITY AND ENVIRONMENTAL IMPACTS

In addition to all positive effects on regional development, tourism can also cause certain problems, threats and conflicts – environmental, economic, social and cultural. Despite the fact that potential threat to environment caused by tourism is relatively small compared to other sectors of economy, higher concentration of visi-

¹ Economic development achieved through clusters is based on local and regional specialization. Due to empirically observed and theoretically justified rotation of economic prosperity with economic downturn (current global financial and economic crisis) this represents the basis of very risky regional development strategy. Economic entities are very dependent on each other within existing clusters and jeopardized activity of one of them usually means jeopardized activities of other cluster members.

tors in the protected areas can cause destruction of nature in places where other economic activities are excluded. Although tourism can bring work opportunities and increase employment in regions with higher remoteness levels compared to other industries, relatively low wages in the service sector, spatial (tourist centres) and temporal (seasonal concentration) factors are its disadvantages. However, based on the results of analysis we may conclude that the success rate of tourism development is largely dependent on good spatial and temporal availability of the destination. Although tourism can act as a positive factor for inter-cultural understanding, in connection with the globalization processes its standardized forms can be the cause of threat to identity at various spatial levels as well as disruption of traditional social relationships.

All listed negative impacts are differently manifested also in some locations of the Polish-Slovak borderland. In term of quality of natural environment, the majority of the most valuable territories in Slovakia are located right in Žilina and Prešov Regions. Based on the results of the questionnaire survey conducted among the representatives of local municipalities and other relevant authorities we may conclude that the Poles are more satisfied with the condition of environment in the borderland than the Slovaks. However, they were also more optimistic in the assessment of the condition and development of transport and municipal infrastructure, tourism and quality of life of the residents. The survey also confirmed importance of quality of natural environment as the most important tourist attractiveness abroad.

Excessive numbers of tourists threaten the natural environment mainly of the Tatras (on the Polish side and in some locations on the Slovak side) and Pieniny. The census carried out in August 2011 revealed that almost 17,000 visitors were present in the alpine area of the Tatras. Despite the fact that locations with high numbers of visitors can be also found on the Slovak side of the Tatras, some less accessible valleys are deserted also during the main season (Tichá, Kôprová, Javorová Valleys). From the point of environment protection of Pieniny a risk is the high rate of tourist concentration in the Dunajec River Gorge which makes, based on the zones of the national park from 2004, significant part of the zone A – area with original or little changed biotopes of European importance. The administrators of the national parks expect the inclusion of this location in zone A to limit noise caused by rafts. As many as 500,000 tourists visit Pieniny every year. On the other hand, estimated turnout of the National Park Poloniny is only around 20 thousand persons a year which does not present significant danger to the natural ecosystems.

Intensive development of tourist infrastructure (particularly of ski resorts) results in significant interference with the natural environment on the slopes of the High Tatras (mainly in ski resort Tatranská Lomnica on the Slovak side), western slopes of the highest part of the Low Tatras (ski resort Jasná in the Demänovská Valley), in region of Kysuce (resort Veľká Rača in Oščadnica), Orava and in other locations. Korbiełow has the biggest capacity from all Polish resorts, but most of the ski lifts are obsolete. Building of new infrastructure for skiing is complicated by the conflict between the interests of ski resort operators and environment protection in the area of Pilsko.

Relatively intensive development of ski resorts was in many cases of the last years financed by the projects of the European Union. This was one of the reasons why

only minimum attention was paid during their construction to their profitability and sustainability in relation to climate changes. While the topic of the impact of global warming on winter tourism in the alpine region is a subject of detailed applied research and conferences, with the transfer of this knowledge being also utilized by the investors, this debate is missing in the borderland. Project of expanding relatively low lying (630–1,050 meters above sea level) Kysuce-based ski resort Oščadnica – Veľká Rača, which was not implemented due to political and economic factors, may serve as an example. The project prepared in 2006 planned 3 to 4 time capacity increase that would make the resort the largest one in Slovakia. Despite missing debate on impact of climate changes the positive fact is that the ski resorts in Orava, which is the region with the most suitable weather conditions for skiing, underwent significant modernization and construction in some cases.

Wind or bark-beetle calamities belong to the natural events with indirect impact on tourism development in the borderland. The windstorm, which destroyed 12,600 hectares of coniferous forests on the Slovak side of the Tatras in November 2004 and its aftermath initiated a heated debate on the concept of revitalization of this tourist area. The aesthetic qualities as well as climatic abilities of the forest so important for “climatic spa” such as Vysoké Tatry town were disturbed. A 4.5 kilometre long nature trail thematically devoted to the calamity between the Rakytovéské Plieska and Jamské Pleso under the massif of Kriváň was opened in June 2011. Visitors can observe the natural renewal of 250 hectares of forest left to self-development. However, the windstorm facilitated enlargement of ski slopes and other infrastructure in Tatranská Lomnica. Rather chaotic situation in competences of nature protection and regulation of tourism development was caused by existence of two organizations – TANAP Administration and TANAP State Forests – as well as long-lasting dispute over the Tatra zoning. Draft zoning of 2010 introduces enlargement of zone D area (zone with allowed construction, only 2nd level of protection) from 590 to 846 hectares. The zone should be enlarged by 250% in Štrbské Pleso, by 200% in Smokovce (expansion along the Liberty Road and almost interconnection with Tatranská Lesná) and by 100% in Podbanské, while the expansion often covers valuable biotopes of national and European importance. According to the draft sub-zone C (an option to use the territory for tourism development, it means also for construction of tourist infrastructure) falling within zone C (3rd protection level) covers 1,470 hectares. Massive development of ski resorts in TANAP is prevented by several objective factors (nature protection, inadequate relief slope). Despite that transport capacities of ski lifts and cable cars keep increasing mainly in Tatranská Lomnica resort.

The foresters see a connection between the wind calamity in the Tatras with subsequent bark-beetle calamity, which unleashed the conflict of opinions of the foresters and conservationists. This conflict becomes the most evident in Tichá and Kôprová Valley, where the foresters placed information boards notifying of vulnerability of forests due to present forest material contaminated by bark-beetles, removal of which was stopped by the conservationists. Vast forest areas affected by bark-beetles can be found in Kysuce where the solution was applied without any compromise. Harvest cuts are also performed to prevent still health forests. Such interference with the aesthetics of the area (in addition to more important environmental problems such as soil drying and erosion) can negatively impact numbers

of visitors to resort Oščadnica – Veľká Rača mainly in summer season. While other factors such as services of the resort, price level, accessibility and the like are important for tourism, aesthetic quality of natural environment is of key importance for summer hiking. The referred is also related to limited options of ecotourism development. Marking of hiking trails is often missing due to clear cuts.

Change in lifestyle of the rural population, which led to the abandonment of traditional forms of land management limits development of agro tourism on the Slovak side. While the network of agro tourist boarding houses is relatively large on the Polish side of the borderland, such facilities are rather rare on the Slovak side.

Sustainability of tourism is largely determined by institutional conditions, which define its development. In this regard different processes may be observed on the Slovak and Polish side of the borderland. While the numerous but smaller centres with lower level of cooperation prevail in Poland, in Slovakia one may observe a clear trend of concentrating and clustering the centres into the organizations strong in terms of capital. On the Polish side of the Carpathian Mountains ski slopes have been operated individually in each village and this limited the options to differentiate slopes according to difficulty. Recently there emerged the attempts to create a system for interconnecting ski lifts and slopes between the villages following the example of Alpine countries, but the conservation requirements stand in the way. Current problems with operation of the ski resorts are caused by unresolved legal issues relating to accessibility of slopes covering private lands used for agriculture for the purposes of downhill skiing and determination of compensation for the owners. The most intense interconnection of the offers of water parks and ski resorts in Slovakia is achieved in case of their single owner - for example in case of Tatralandia Liptovský Mikuláš bought by company Tatra Mountain Resorts, a.s. in season 2010/2011 or Meander Ski and Thermal Park Oravice. Thermal Park in Bešeňová promotes its close cooperation with resort Ski Park Ružomberok (Malinô Brdo). One of the consequences of selective policy applied by the joint stock companies may be abolishment of smaller resorts; this happened in Liptovská Teplička in season 2011/2012 and the result was reduced number of jobs in the village which relied on the development of tourism. Resistance of local small businesses against large investors with impact on the entire region of the Tatras is thus increasing.

The economic sustainability of tourism in the borderland can be affected by the economic crisis and changes in exchange rates. Focus on international clientele becomes increasingly important for the large Slovak resorts. However, the Polish and Czech clients, who represent a substantial percentage of foreign visitors, are very sensitive to the price level; this became obvious in 2009 after Euro was accepted as a Slovak currency, when the numbers of tourists from these countries were significantly reduced. Numbers of visitors may be increased through cooperation and coordination of marketing. Liptov Cluster, the association the goal of which is coordination and provision of uniform marketing to various tourist entities operates in the region of Liptov. Thanks to sale of accommodation packages (annual increase by 350% between seasons 2009/2010 and 2010/2011) increased the numbers of visitors to the region by more than 8% in y/y comparison, which is the value exceeding average in the time of the economic crisis based on the nationwide comparison.

2.13. PERCEPTION OF THE POTENTIAL OF TOURISM AND TRANSPORT ACCESSIBILITY OF THE POLISH-SLOVAK BORDERLAND BY THE REPRESENTATIVES OF LOCAL GOVERNMENT

It is always interesting to know the ideas of persons who have certain competences in administration of the territory and their activities and decisions may contribute to the change of existing state. This statement also covers the representatives of local governments (local self-administration) in the Slovak-Polish borderland, who became the target group asked to express their opinions within very specific survey. The survey examined the perception of the administered territory in terms of tourist attractiveness, accessibility and development of tourist infrastructure. Another objective of the survey was to compile their subjective opinions on cross-border cooperation or their view of transport accessibility and possibilities of its improvement in broadly understood context of development of tourism in the Slovak-Polish borderland.

To gain the answers we used a standardized questionnaire which was mainly completed by the employees of the departments of promotion and tourism development of the gmina authority (in Poland) or by mayors of the municipalities (in Slovakia). The questionnaire was firstly distributed by post, later, due to the low number returned, by e-mail with prior phone request for active participation in the survey. In the end we obtained 43 fully or partly filled in questionnaires from representatives of the Polish gmina authority and 37 fully or partly filled in questionnaires from representatives of the Slovak municipalities; the questionnaires became subject to analysis. Rate of return of filled in questionnaires was 91.5% in Poland; the level in Slovakia was only 25% despite increased effort. However, we need to realize the size and competence incomparability of the basic administrative units, gmina and villages. A Polish gmina is several times larger than a Slovak municipality (population, administered territory, personnel, financial budget) and its representatives have available not only more extensive opportunities to influence social and economic development of their territory but also more extensive opportunities to assign tasks to their subordinated employees. Such solutions is impossible in particular for a mayor of a small Slovak municipality and so their participation in the survey was often the matter of ability to find some time to complete the questionnaire in addition to many other duties. That was probably the main reason for low participation of the Slovak mayors in the survey.

SEVERAL RESULTS OF THE QUESTIONNAIRE SURVEY

Based on the subjective assessment of individual areas of social and economic life (transport infrastructure, municipal infrastructure, tourism, quality of life and quality of environment) in surveyed gmina and municipalities in Slovak-Polish borderland we can conclude that perception of their representatives has improved. The respondents had available a five-point scale: significantly developing, developing, stagnating, gradually deteriorating and significantly deteriorating. The prevailing positive assessment is the result of mainly objective changes in transport infrastructure and technical and social municipal infrastructure, building and reconstruction of which improved the life in the Slovak-Polish borderland. Since the individual areas are closely interconnected, positive assessment also covers quality of life and conditions for the development of

tourism. A major benefit is the finding that the assessment of development of basic administrative units in Slovakia is less favourable than on the Polish side. Opinions of the representatives of the Slovak municipalities more often referred to stagnating development compared to the representatives of Polish gmina. Despite the fact that the reasons may vary, we believe that important role plays the above-mentioned differentiated size of compared administrative units, which further causes significant differences in the field of budget and actual impact on changes in the life and functioning of the village or gmina.

Among the tourist attractions which were most often visited by tourists in the territory of the surveyed gmina and municipalities, sacred buildings, national parks and natural objects and in the third place cultural-historical attractions were the most frequently mentioned in both states. The question was open and so the respondents were free to express their opinions. The final chart of attractions is the result of a relatively balanced distribution of natural attractions and sacred buildings which may be found in every municipality or gmina. Those attractions, precise definition of which links them to a specific location (water parks, spas, summer sports, castles or nature trails) were mentioned less often (especially on the Slovak side).

Majority of respondents believe that other tourist attractions unknown to the general public may be found in their administered territories. 60% of the representatives of gmina and 71% of the representatives of municipalities believe that more tourist attractions are available in their territories, promotion of which could potentially attract more visitors. As examples of such attractions the respondents named sacred buildings (churches and chapels), natural objects and cultural-historical buildings. Unfortunately, most of these attractions are only local in nature in terms of cultural, historical and tourist perspective and so they have not belonged to important attractive factors, which would have capacity to increase tourist attractiveness of the surveyed territories. On the other hand, despite the fact that the attractions do not have a great "tourist potential", through the creation of thematic trails or (organizationally or thematically) interconnected groups of tourist destinations, these may become the part of interesting alternative products of tourism.

Development of tourism plays an important role in the social economic development of gmina existing in the Polish-Slovak borderland. The mayors of the border municipalities in Slovakia perceive their role as less positive. It may be assumed that the effect of differences in size of the basic administrative units and corresponding services reflected in the responses. It is obvious that this type of economic activity does not bring crucial revenue to the significantly smaller Slovak villages and their inhabitants where the adequate tourist infrastructure is missing or the economic effect of tourism is very low. This is proved by the answers to a question about development in which the respondents pointed out that those municipalities for which tourism is of marginal importance are stagnating or gradually declining in terms of infrastructure development.

The respondents are of the opinion that improvement of infrastructure (expansion of accommodation facilities) as well as transport infrastructure (construction of the new or reconstruction of the existing transport networks) would contribute the most to the development of tourism in the Slovak-Polish borderland. The respondents paid relatively insignificant attention to the opportunities to stimulate development of tourism through various organizational and legal changes (e.g. lower taxes and local fees,

easier business registration, assistance with promotion etc.), which are capital-efficient but require necessary change in thinking of the main national and legal representatives.

Cooperation between the entities on both sides of the border (especially between gmina and municipalities) is considered to be active and good. An important factor determining the cross-border cooperation is the proximity of the border. Lack of financial means, excessive distance from the border or problems arising from the perception of cooperation itself (such as inconsistency in determining common priorities) were the main declared reasons for passivity or failure in establishing the cross-border cooperation.

Accessibility of the surveyed territory varies and surveyed type of availability (external, internal, border) as well as used means of transport always served as a differentiating factor. An option to travel by individual transport, which strongly emphasizes the need to improve especially the road transportation, was evaluated as the best option. There is little confidence in public transport and in opinions of the respondents it plays more or less a marginal role in meeting the tourists' needs.

Opinions of the representatives of surveyed gmina and municipalities suggest that the Polish tourists staying in the Slovak-Polish borderland visit more often the tourist attractions on the other side of the border. On the other hand the tourists staying on the Slovak side of the borderland visit the Polish tourist attractions less often. An important exception is behaviour of so-called "shopping" tourists from Slovakia who like to travel to Poland having the goal of cost-advantageous shopping in their mind. However, these are the one-day visitors who do not stay in Poland overnight.

Relatively new knowledge is finding that hiking and biking play an increasingly important role in crossing the border at the local level. Respondents place considerable emphasis on building and maintenance of hiking and bike trails.

2.14. PERCEPTION OF TOURISM AND ACCESSIBILITY FROM THE POINT OF VIEW OF TOURISTS

The aim of the survey via electronic questionnaire was to get information about visiting the Polish-Slovak borderland in the year 2010. The needed information included the time and financial resources the respondents are willing to pay for the trip to the tourist destination, preferred forms of tourism and some aspects of the tourist stay in the area of the Polish-Slovak borderland (frequency, means of transport, kind of tourism). Moreover, we wanted to study the tourists' experience of the areas of the Slovak and Polish borderland by the respondents, character of the visit to the Polish-Slovak borderland, factors which attract or discourage the respondents from visiting the Slovak or Polish part of borderland and what should change to increase visits to the Slovak or Polish parts of the Polish-Slovak borderland. The survey was conducted via an electronic questionnaire in the Slovak and Polish languages. The questionnaire in the Slovak language was available at www.iankety.sk from April to June 2011. A total of 268 answers were gained. The respondents could answer the questions published in the Polish language from February until the end of July 2011 at the webpage www.net-ankiety.pl. A total of 441 questionnaires were filled in at the Polish server. 69.4% of them contained answers to all the questions.

Answers to the Slovak questionnaire were provided by 95.4% of Slovak respondents, 2.7% of Czech respondents and 0.8% of the respondents from Poland and other countries 1.1%. The majority of respondents were from the Bratislava region - 53.4%. Percentage of respondents from Žilina and Trnava Regions was higher compared to other regions. The majority of respondents were people with university education, employed persons and persons with the average monthly salary per capita in the household at 500–1,000 €. Women slightly prevailed among the respondents. The age structure was rather balanced, however answers by respondents from the age range of 25–29 years appeared the most often.

Answers to the Polish version of the questionnaire were provided by 96.9% of Polish respondents, 1.4% of respondents from Germany, 1.0% of respondents from Slovakia and 0.7% of respondents from other countries. The biggest group of respondents from Poland were inhabitants of Warsaw 33.8% and other big cities located in the area (or in the vicinity) of the Polish-Slovak borderland (Bielsko-Biała, Krakow, Rzeszów and Lublin). Larger groups of respondents were also from the districts in the vicinity of Warsaw. More than 80% of respondents who filled the questionnaire in the Polish language had university education and 18.6% had secondary education. Groups of employed people prevailed (42.4%), then pupils and students (13.8%). The monthly per capita income in the households had an average level from 2,000 to 4,000 PLN (500–1,000 €). Women prevailed in the surveyed population (59.2%).

According to the Slovak respondents short-term stays (one-day stays without accommodation) were most frequent in 2010. This occurred 7 or more times. More than 70% of respondents stated that they made medium-term stays at least once a year (most often two to three times a year). More than 60% of respondents decided for long-term stays (5 days or more). The most frequent forms of recreation stated by the respondents from Poland were one-day excursions without accommodation. Almost one third of respondents stated that they arrived for more than 7 stays during the year 2010. A relatively high percentage of persons stated that they travel for long-term stays.

An important part of the analysis is the determination of the acceptable time needed for travelling to the tourist destination depending on the length of stay. Concerning the one-day stays the most often stated opinion in the questionnaires filled in by the Slovak respondents (more than 44.0% of respondents) was that they think the acceptable length of journey is 2 hours. Within the medium-term stays the preference of 4–5 hours prevailed. For long-term stays more than two fifths of respondents from Slovakia preferred more than 10 hours. Concerning the stays where the respondents did not assume the need for accommodation the majority of Polish respondents was willing to travel 2 to 3 hours to the place of stay. In the case of medium-term stays the time spent by travelling was usually 4 to 5 hours. Within long-term stays, similarly to Slovak respondents, most persons were able to accept destinations with times of transport of more than 10 hours (55% of respondents).

Apart from the time needed for travelling another important factor influencing the decision is the price which the respondents are willing to pay for the journey (per capita) to the tourist destination (from the place of residence to the destination). The majority of Slovak respondents stated that prices in the ranges 5–12 and 12–25 € (for one person both ways) were acceptable for one-day stays. In the case of medium-term stays (from 2 to 4 days) the limit of price acceptability was higher than in the case of the

one-day stays (5–12 and 12–25 €). For the biggest group of respondents from Poland the acceptable price for transport for a one-day stay per capita (without accommodation) is 20–50 PLN (5–12 €). Concerning the medium-term stays the most often stated answer was a sum ranging from 100 to 200 PLN (25–50 €; 34.2 %). In the case of long-term stays the biggest group of respondents is willing to accept expenses ranging from 200 to 500 PLN per capita.

Slovak respondents prefer active forms of spending free time (hiking, cycle tourism, water sport, winter sports). Less than one fourth preferred sight-seeing tourism (cultural, festival, discovering the country and nature). Respondents from Poland preferred sight-seeing tourism (more than half of the answers).

Almost 17% respondents from Slovakia, who participated in the survey, visit the area of the Polish-Slovak borderland once a year for one-day stays. The ratio of the realized journeys to the region within a year is higher in the case of medium-term stays (30.1%). The Polish respondents relatively rarely considered the journey to the Polish-Slovak borderland as its target for recreation. Even if they decided for this destination, it was most often for one-time journeys mainly with medium-term and long-term stays.

The questionnaire survey provided information about the means of transport which were used when travelling from the place of residence to the area of the Polish-Slovak borderland. According to the Slovak respondents cars or motorbikes (58.9%) and trains (26.9%) were most often used for the one-day stays. A similar situation was also recorded in the case of medium-term and long-term stays. The most important means of transport used for travelling to the Polish-Slovak borderland according to the Polish respondents was the car or motorbike (63.3% one-day, 24.5% medium-term and 23.1% long-term stays).

The information about means of transport most often used when crossing the border was also surveyed. During one-day stays the respondents from Slovakia most often used cars and motorbikes (60%) and bus tours (less than 15%), while a similar situation was also ascertained in the case of medium-term stays. Similar results were obtained from the surveys conducted in Poland. The most frequently used means of transport was car or motorbike (63.5% in the case of one-day stays, 60.5% in the case of medium-term stays and 56.7% in the case of long-term stays). The second most frequently stated means of transport (for all kinds of journeys) was bus tours.

The most frequently experienced kind of tourism in the Polish-Slovak borderland according to Slovak respondents is hiking (66.4% of respondents), followed by cultural sight-seeing tourism (36.4%), winter sports (29.2%), visits to friends and family (24.1%) and shopping tourism (20.2%). The Polish respondents similarly as the Slovak respondents prefer hiking (72.9%). Other identified types of tourism were cultural sight-seeing tourism (52.2%) and recreational tourism (38.1%). Winter sports enjoy great popularity (34.1%).

The most often visited areas from the surveyed regions (regions of the Slovak part of the borderland where the analyses within the project were conducted) were according to the Slovak respondents the Tatras (94.5%), Orava (87.0%) and Liptov (81.4%). Concerning the visits of the Polish respondents to the Slovak part of the borderland the Tatras definitely dominate (62.4%). Among the regions of the Polish borderland, the Polish respondents most often mentioned the Tatras (69.1%). Tourism in other regions

was stated equally in the regions of Beskid Śląski, Beskid Żywiecki together with the range of Babia Hora, Pieniny, Beskid Sądecki and Bieszczady. The Tatras also dominate in the visits of Slovak respondents to the Polish part of the borderland (62.1%).

After crossing the border with Poland respondents from Slovakia engaged in several kinds of tourism. Most often it was hiking (more than 50% of respondents). Shopping tourism as well as cultural sight-seeing tourism was also very popular. The answers of the Polish tourists who visited the Slovak part of the borderland had a similar character. Most often stated was hiking (67.1%) and cultural sight-seeing tourism (42.2%). In the Slovak part of the borderland the Slovak respondents are mainly attracted by tourist attractions of the localities (85.7%) and personal contacts and family relations (54.1%). Among other factors which attract visitors is the distance, transport accessibility and prices of services. The tourists in the Slovak part of the borderland are turned off mainly by the quality of services (55.1%) and their prices (39.8%) as well as transport accessibility. Among the most important categories in terms of incentives to visit the Polish part of the borderland the Polish respondents stated tourist attractions (88.7%) and distance (53.6%). In the case of factors which turn respondents off visiting this area, the first place is taken by the high prices of services (36.5%) and unfavourable transport accessibility (33.7%). Slovak respondents are mostly attracted to the Polish part of the borderland by tourist attractions (75.7%) and language closeness (54.4%). Quality and prices of services are also an important factor. According to the respondents the factors which turn them off visiting the borderland are mainly the transport accessibility (54.4%), distance (51.5%) and price of transport. Concerning the factors which attract Poles to visit the Slovak part of borderland, they were in the category "tourist attractions" (88.3%) and language closeness (59.4%). The most negative responses were gained in the categories of transport accessibility (34.4%) and transport expenses (33.2%). Personal contacts seem to be the least important factor (64.8% of respondents stated that this factor is not important).

According to the Slovak respondents the factors which would motivate them to visit the Slovak part of the borderland more often were mainly: improvement of the quality of tourist services (more than 62%), lower prices of services and better accessibility of information materials. The most often appeared suggestions for change in the Polish side of the borderland made by the respondents from Slovakia were better accessibility of information materials, increase of bus lines and railway transport lines and improvement of accessibility by car.

In the case of changes in the Polish part of the borderland the respondents from Poland most often highlighted the need to improve the conditions of accessibility by car (54.4%) and decreasing the expense of a stay (52.9%). Concerning the changes which would increase the number of visits to the Slovak side, the Polish respondents stated mainly increase of frequency and better bus and railway connections, decreasing the cost of accommodation as well as improvement of accessibility by car.

3.

TRANSPORT- AND ACCESSIBILITY-RELATED CONDITIONS FOR TOURISM DEVELOPMENT IN THE INDIVIDUAL POLISH POWIATS AND SLOVAK OKRESSES

This chapter presents key conclusions concerning the transport- and accessibility-related conditions for the functioning of tourism currently and the changes likely to take place for each poviats of the Polish-Slovak borderland in the years to come. Apart from an in-depth analysis of the existing situation, the chapter discusses the results of research into the possibilities of improving accessibility as a result of the road system extension across a range of variants. The variants correspond to those selected for research within the framework of the project and presented in the book entitled *Polish-Slovak Borderland – Accessibility and Tourism* (which explains the methodology applied – see Chapter 6).

Variant A represents the existing status of the road infrastructure (2010). Variant B is the hypothetical road network in 2015. The assumption was that Poland will actually deliver the investments (motorways, expressways), which were at least at the tendering procedure stage in 2011. The authors took into account the reviewed Road Construction Programme, as amended by the Ministry of Infrastructure in January 2011. In addition, they took into consideration the middle section of the future A2 motorway (Piotrków Trybunalski–Pyrzowice), which will be constructed under the concession system. As regards the Slovak investments, these include all projects to be completed by 2015, according to the data of the National Motorway Agency (www.ndsas.sk).

The third variant represents the target road system to be created by the year 2030. It assumes that the more ambitious versions of infrastructure development programmes will be completed by this time, both in Poland (the target network of expressways and motorways provided for in the relevant regulation of 2004, plus the new investments envisaged in the new National Spatial Organisation Policy 2030) and in Slovakia (expansion of the network of motorways and expressways provided for in the New Programme for the Construction of Motorways and Expressways of 2000, as updated and amended) as well as the Czech Republic (Resolution of the Czech Republic Government No. 741/1999 on development of transport networks).

The subsequent Variants D – K are single investments which are to be partly integrated into the 2030 network (e.g. Variant D – S7 Kraków–Rabka–Zakopane expressway; E – Kraków–Banská Bystrica expressway; F – Rzeszów–Košice expressway; G – Bielsko-Biała–Žilina expressway; H – completion of the entire D1 motorway, including the Czech sections) or are additional long-term concepts, not always feasible (I – Kraków–Zakopane expressway with a tunnel under the Tatra Mountains, to be connected to the Slovak D1 motorway; J – Twardoszyn–Czarny Dunajec–Pivniczna ring

road with highly improved technical and functional traffic parameters; K – Tarnów–Prešov expressway). The goal of these individual variants is to check their potential effects. To provide a better overview, the individual variants are presented in Figure 14.

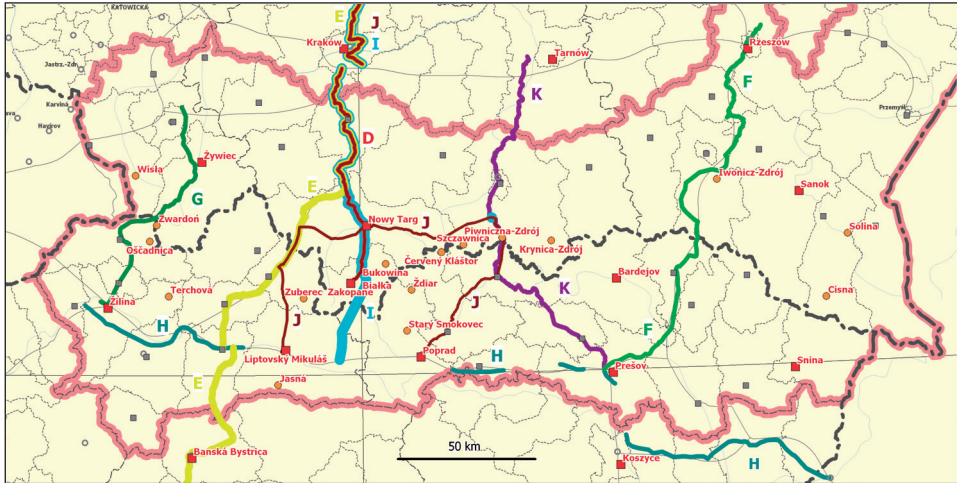


Figure 14. Map of individual variants

Description of variants: D – the S7 Kraków–Rabka–Zakopane expressway; E – the Kraków – Banská Bystrica expressway; F – the Rzeszów–Košice expressway; G – the Bielsko-Biała–Žilina expressway; H – completion of the whole D1 motorway along with the investments on the Czech side of the border; I – the Kraków – Zakopane expressway along with the tunnel under the Tatras connected on the Slovakian side with the D1 motorway; J – the Tvrdošín–Czarny Dunajec–Piwniczna bypass road with considerably increased technical and operational traffic parameters; K – the Tarnów–Prešov expressway
Own study.

3.1. THE ŚLĄSKIE VOIVODSHIP

BIELSKO-BIAŁA POWIAT

The size of such tourist centres as Bielsko-Biała requires that the powiat be looked at in terms of accessibility both from its perspective as a tourist region and as a generator of tourism (oriented, among others, to the Polish-Slovak borderland). What is more, the powiat and the city itself are transit units for many of the shortest access routes to the area concerned from central and western Poland and Germany.

The powiat (including the City of Bielsko-Biała) benefits mainly from the extension of roads in Variant G (Bielsko-Biała–Žilina expressway). This provides much better access to the Slovak side of the border, the Kraj of Žilina, and, thanks to the already completed D3 motorway, also to the Low Tatras and large water parks (in Bešeňová and Tatralandia in Liptovský Mikuláš). For example, after the completion of the abovementioned expressways, the travel time from Bielsko-Biała to Žilina will decrease from the current 90 minutes to 60 minutes, and that to Liptovský Mikuláš from 126 to 103 minutes. Due to the larger distances involved, the other variants have no major significance

for the Bielsko-Biała Poviát. When considering the Bielsko-Biała Poviát as a tourist area, it must be stressed that the above investments would have a limited impact on its international accessibility. In this context, the most important projects to be completed are the A1 motorway with a section of the S1 expressway from Mysłowice to Bielsko-Biała and extension of the roads along the “Czech access channel”. Also important is the potential construction of the Kraków-Bielsko-Biała (S52) expressway. The construction of this road was proposed in the new Polish National Spatial Organisation Policy, adopted by the government in December 2011.

CIESZYN POWIAT

The external accessibility of the poviát (including its major tourist centre, i.e. the town of Wisła) depends on investments located outside the area analysed here, mainly those in Poland and the Czech Republic. A factor of major importance in this context is the construction of the Mysłowice-Bielsko-Biała section of the S1 expressway, and upgrading the standard of the Kraków-Bielsko-Biała route to that of an expressway (S52, postulated in the new National Spatial Organisation Policy, adopted by the Polish government in December 2011).

The poviát already has rather good access thanks to its location at the latitudinal S1 expressway from Katowice to the Czech Republic. The region benefits indirectly from the road extensions in Variant G (Bielsko-Biała-Žilina expressway). This provides much better access to Slovakia, i.e. the Kraj of Žilina, and, thanks to the already completed D1 motorway, also to the Low Tatras and their tourist attractions (in Bešeňová and Liptovský Mikuláš). As regards the latter park, the travel time will shorten from the current 138 minutes to only 88 minutes. What should also be stressed is the existing good access from the Czech Republic (Ostrava-Karviná conurbation). Due to the greater distances, the other variants have no major significance for the Cieszyn Poviát. It should be emphasised that in terms of its accessibility from Slovakia (and less so from the Czech Republic), the best option for the poviát would be to upgrade the 941 and 943 poviát roads (to Laliki), thanks to which the connections between Wisła and Zwardoń (neighbouring Żywiec Poviát) would improve significantly. Notably, in order to achieve synergy effects, it would be good to implement parallel investments across the Slovak border, in the area of Oščadnica, which would allow the expressway to be used to a fuller extent. All additional local road modernisation projects are important for the accessibility of the ski resorts in Beskid Żywiecki, particularly from Slovakia. They will also streamline transport southwards for tourists staying in Wisła and Ustroń.

PSZCZYNA POWIAT

Pszczyna Poviát is the most northwestern poviát in the Polish-Slovak cross-border cooperation area. Generally, it benefits exclusively from the construction of the Bielsko-Biała-Žilina expressway (Variant G). The variant means better connections with Žilina Okres, and thus also with the tourist destinations of the Lesser Fatra and the Greater Fatra. What is also important is that thanks to the D1 motorway, already completed within the framework of the variant discussed here, the accessibility of the Tatra Mountains and such highlights as the caves in central Slovakia or the water parks in Bešeňová and Liptovský Mikuláš (Tatralandia) will improve. Due to the longer distances involved, the

other variants have no major significance for the Pszczyna Poviát. Due to its location, the conclusions related to the future developments in the Pszczyna Poviát apply to the Katowice conurbation, as it is a transit area from Katowice to Bielsko-Biała.

ŻYWIEC POWIAT

The S69 expressway is crucial for the poviát. Interestingly, positive effects will be visible only after its Slovak extension is completed (R5 road). The poviát will also benefit from the potential construction of the S52 expressway from Kraków to Bielsko-Biała. The effect is even more noticeable here than in the case of the S69 road. Moreover, accessibility will improve to a relatively high extent as a result of the completion of the Polish A1 motorway. The role of the Slovak investments is marginal. The proximity of the large conurbations of Upper Silesia (Śląsk) and Kraków and their still imperfect transport connections mean that the tourist destinations in the western part of the Polish-Slovak borderland will be accessible mainly thanks to Polish investments.

Currently, access to the poviát is not optimal, as it lacks complete linkage to the A4 motorway corridor (in the north). Obviously, the greatest accessibility benefits are related to Variant G (Bielsko-Biała-Žilina), as the expressway crosses the whole poviát north-south. In this case, the travel time between, for example, Żywiec and Žilina, shortens from 70 to 45 minutes. This would ensure far better accessibility from Slovakia and from Poland, which should be analysed particularly in terms of demand. However, it should be stressed here that due to the proximity of the Katowice conurbation, this would not necessarily translate into increased interest on the part of tourists from this part of Poland, although it is quite likely the scale of weekend or even one-day trips would increase as a result of deurbanisation (currently this is hindered by peak-hour congestion of the 69/S69 road, within both its single and dual carriageway sections). Moreover, the construction of a high-capacity road between Bielsko-Biała and Žilina, i.e. the already finished D1 motorway, will “open up” the Low Tatras and their attractive tourist destinations, notably the water parks in Bešeňová and Liptovský Mikuláš. Moreover, upgrading this road system will provide better communications for Korbielów and enhance its attractiveness (further promotion of winter sports). Finally, improving the traffic parameters of the 947/78 road, after previous completion of the A1 motorway, will ensure the fastest travel time from the Katowice conurbation to the Slovak Tatras.

3.2. THE MAŁOPOLSKA VOIVODSHIP

GORLICE POWIAT

The internal accessibility of the poviát may improve significantly once the Polish investments in the central part of the borderland are completed. This concerns both the construction of the Tarnów-Prešov motorway and the new Podłęże-Piekiełko railway line (involving the modernisation of the route further on via Nowy Sącz to Muszyna and Prešov). The poviát lies between two expressways: the Tarnów-Prešov road (Variant K) and the Rzeszów-Prešov road (Variant F), but at a distance which does not allow it to obtain any direct benefits, as it is adjacent to the expressway. Thus, an important factor for increasing its accessibility and taking advantage of its location is the modernisation

of latitudinal routes, particularly Road 28 (Nowy Sącz-Krosno). However, as regards more distant interlinks, substantial benefits are to be expected from the completion of the A4 motorway. When opened, the motorway will be highly advantageous in terms of saving time, even if the abovementioned Road 28 is not modernised. For example, the travel time from Gorlice to Kraków will be reduced from the current 110 minutes to 91 minutes, and that to Rzeszów from 84 to 78 minutes. It should be emphasised that for local tourism accessibility to improve it is important that the road system southwards be extended, which involves connecting it to Bardejov. Improving local accessibility would increase the distance of one-day tourist travel, and thus also boost activation of tourism. In this context, one should also observe the on-going improvement in the standards of the road system towards Krynica Zdrój (e.g. via Uście Gorlickie), which provides better accessibility of the latter from the border crossing in Barwinek. This is because Krynica-Zdrój has the highest tourism potential in the region, which can be “dispersed” in the form of one-day tourist trips over a much vaster area than so far. To sum up, it should be stressed that considering its unique natural and cultural assets (e.g. the health resorts of Wapienne and Wysowa, the UNESCO sites in Sękowa and Binarowa) and the relatively low tourism flows so far, the Gorlice region (and in wider terms, Beskid Niski) has a huge potential for intensification of tourism.

LIMANOWA POWIAT

The powiat would benefit the most from the construction of a new railway line between Podłęże and Piekiełko. The effects of this would be incomparable to any road project.

The powiat is located at some distance from the expressways considered in the different variants, so the resultant direct outcomes for the powiat in terms of improving transport connections are limited. Greater benefits are observable only when farther interlinks are considered. What matters here is the completion of the S7 route, which provides potentially better possibilities for attracting visitors e.g. from Warsaw. Generally, both in regional and local terms, the powiat would benefit from upgrading Voivodship Road 965, which is important for providing a coherent and efficient link to the A4 motorway, and from remodelling Road 28, which would ensure an improved connection between Nowy Sącz and Chabówka (and thus better integration with the S7 route).

MYŚLENICE POWIAT

In view of its location, the most important variants for the powiat are those involving connections from Kraków southwards. It should be stressed here that most sections of the current National Road no. 7 running within the powiat already have the standard of a dual carriageway, so the potential benefits are not to be expected from good connections with Kraków, but with Nowy Targ and Zakopane (which are so important locally) and Slovakia. For example, important here is the shortening of the current travel time to Zakopane. At present it is 59 minutes, a figure that will be reduced after construction of the dual carriageway to 48 minutes. Moreover, considering its location, the Myślenice Powiat should be considered in the context of the Kraków conurbation. The construction of the expressways southwards substantially improves accessibility of the attractive leisure spots in the Tatra Mountains from the Myślenice area, particularly as regards short stays, also on the Slovak side of the border.

Another factor of significance at the poviát level is the completion of the Polish A4 motorway and the potential S52 expressway envisaged to connect Kraków with Bielsko-Biała.

NOWY SĄCZ POWIAT

Generally, all investments delivered in the Nowy Sącz Poviát, planned both by the Polish and the Slovak governments, are characterised by a relatively low level of effects. In relative terms, the most significant impact will be that of connecting the D1 motorway to the Ukrainian border. This is indirect proof that the region is poorly connected with the domestic (Polish) base. In these conditions, the accessibility level starts to be determined by the distant (in geographical terms, but, after the completion of the D1, no longer in time terms) cities in Slovakia, and even Austria and Hungary. This is an important reason why the construction of an expressway along the Kielce-Kraków-Prešov line should be considered. It would improve the accessibility of the Nowy Sącz area by more than 22%. Also extremely important for the poviát is the creation of a new railway line between Podłęże and Piekiełko, as well as the modernisation of its extension to Muszyna, via Nowy Sącz, and further on to Prešov.

As far as the Nowy Sącz Poviát is concerned (including the city of Nowy Sącz, which is formally separate and has poviát rights), the most beneficial option would be Variant K (the longitudinal Tarnów-Prešov expressway), and for its southern part also Variant J (ring road around the Tatra Mountains, the Podhale region and the Pieniny Mountains with much faster traffic parameters and dual carriageway sections). The Tarnów-Prešov route is of particularly high importance in terms of accessibility, as it runs across the central part of the poviát. It is important for modelling the potential tourist demand to include the poviát in the scope of the impact of the A4 motorway and provide easier access to it, especially from Kraków and Katowice (short-term stays), but also from the Warsaw direction. The travel time from Nowy Sącz to Prešov will shorten from the current 97 minutes to 71 minutes, which will create positive synergy effects, including strengthened social and economic links. It is important to note that in the case of Variant K, Szczawnica-Zdrój would increase its supply of tourist attractions within the 45-minute isochrone by 20%, and in Variant J even by 36%. Moreover, we should mention the very peripheral location of Krynica, which could be activated thanks to the modernisation of Road 75, especially if attempts were made to connect the road system to Slovakia (e.g. with Bardejov across the Tylicka Pass). Moreover, crucial for improving the poviát's accessibility in temporal and spatial terms are the possibilities of shortening travel time in the most congested, highly urbanised areas, which justifies the construction of a bypass road for Nowy Sącz (at present, construction is under way in the west, but increasing tourist flows and traffic in general requires that a bypass also be built along the 28 national road).

From the regional perspective, accessibility would be improved by the construction of a new bridge across the Poprad River between Mnišek nad Popradom and Piwniczna.

NOWY TARG POWIAT

The future changes in the external accessibility of the Nowy Targ Poviát depend on the investments on both sides of the border. Crucially important here is the Polish expressway. The benefits of the S7 road are clearly visible only when seen in the context of the

construction of the Rabka-Zakopane section of the expressway. The Polish Podhale will also gain substantially from the construction of the Kraków-Bielsko-Biała expressway. In addition, the powiat will benefit from the completion of the D1 motorway (reaching as far as the Ukrainian border).

Particularly important for the powiat is the concept of a ring road around the Tatras (Variant J – road with much higher traffic parameters compared to the current status, with sections of a dual carriageway), as a result of which Nowy Targ would become a new important tourism management centre. The concept could actually be implemented if the need to decentralise tourist traffic became real. This is because the tourism there is bound to increase as a result of the expected improved regional and national accessibility. Thus Nowy Targ could partly relieve the growingly congested Zakopane, and thanks to the ring road it could even be more competitive in certain aspects, particularly for tourists preferring heritage tourism and sightseeing. For example, time accessibility analyses show that the travel time from Nowy Targ to Liptovský Mikuláš will reduce from 90 minutes currently to 75 minutes, and that to Piwniczna from 79 to 46 minutes. The shortening would be even more spectacular if the highly futuristic Variant I was delivered (expressway from Zakopane to the D1 motorway east of Liptovský Mikuláš with a tunnel under the Tatras). This would cut the travel time to Liptovský Mikuláš by 45 minutes (currently 90 minutes). The latter example clearly illustrates the possibilities of extending the range of impact by means of projects offering very high traffic parameters. Moreover, when analysing Nowy Targ, it is worth pointing to the improved accessibility of tourist attractions within its 45-minute isochrone, which in Variant J amounts to approx. 20% (it is even more significant with the larger interval isochrones). Similar analyses for Szczawnica indicate that for this variant the supply of tourist attractions will radically increase by 50%, but we must remember that this could lead to a disproportionate increase of pressure (and the construction of the road itself, especially toward Piwniczna, is unfeasible, as it would, for example, require a tunnel to be built).

OŚWIĘCIM POWIAT

In terms of location, the powiat's position improves after the completion of Variant G (Bielsko-Biała-Žilina expressway). It provides much better access to the Slovak side of the border, i.e. the Kraj of Žilina (and such geographical areas as Jaworniki, the Lesser and Greater Fatra), as well as, thanks to the D1 motorway, which is currently under construction, to the Low Tatras and the water parks in Bešeňová and Liptovský Mikuláš (Tatralandia). Because the other variants are located at a large distance from the powiat, they have no major significance for the Oświęcim Powiat. The accessibility of the Tatra Mountains from the powiat would also be improved by the modernisation of national roads 44 (to Zator) and 28 (to Rabka), where they could connect to the expressway envisaged in the "Tatra" variants (D, E, I, J). However, it must be pointed out here that considering its location, the conclusions drawn for the development of the situation in Oświęcim and the surrounding powiats are relevant for the Katowice conurbation. And thus, improved accessibility of the Tatras from Katowice means a growth of tourism pressure, which is criticised for so many reasons. To improve the powiat's external accessibility, it is important that the Polish A1 motorway be completed and the optional S52 dual carriageway built.

SUCHA BESKIDZKA POWIAT

The Sucha Beskidzka Powiat lies between the longitudinal routes from Katowice to Žilina via Zwardoń and from Kraków to Zakopane, thus benefiting both from the “Tatra” variants (D, E, I, J) and from Variant G (Bielsko-Biała-Žilina). These investments are bound to improve connections with Slovakia (Low Tatras, Kraj of Žilina) and likewise, the powiat will be more accessible from the south (especially from the former border crossing in Chyżne). What is important locally is the upgrading of Voivodship Road 957, which will provide better access to the tourist facilities in the area of Babia Góra. As regards the demand processes in the Sucha Beskidzka Powiat, the future of National Road 28 is of equal importance (compare comments on transport development in the Wadowice Powiat, notably with respect the possibilities of attracting German tourists).

TATRA POWIAT

Future changes in the external accessibility of the Tatra Powiat depend on undertakings on both sides of the border. The Polish S7 expressway and the Slovak D1 motorway are of key importance here. For Zakopane the best option of all the variants considered would be to take the D1 motorway as far as the Ukrainian border. The benefits of constructing S7 are clearly visible only when seen in the context of the completion of the Rabka-Zakopane expressway. The Polish Podhale will also benefit substantially from the Kraków-Bielsko-Biała expressway.

Improving accessibility for Zakopane and its overall position in terms of transport and settlement possibilities are to be expected mainly after the upgrading of National Road 7 and ensuring better transport connection with Slovakia. These changes cannot be considered separately from the directions and intensity of tourist streams. However, simulations have shown that the variants failing to link Zakopane with the network of trunk roads will also fail to ensure a substantial change in the area’s local accessibility. For example, in Variant J (ring road around the Tatras) the supply of tourist attractions within the powiat’s 45-minute isochrone increases by just 8%. The most noticeable accessibility effects are to be expected after the delivery of the highly spectacular and futuristic projects, such as Variant I (expressway from Zakopane to the D1 motorway east of Liptovský Mikuláš with a tunnel under the Tatra Mountains). This solution would almost double the supply of tourist attractions, and the travel time from the capital of the Polish Tatras to Liptovský Mikuláš would shorten to just 38 minutes (and to Poprad to 44 minutes). This translates into much greater tourist traffic possibilities in both directions and increased popularity for the Liptovský Mikuláš water facilities (Tatralandia). When analysing the Tatra Powiat, it must be remembered that the concentration of tourism there is already high and that the planned micro-scale road system developments (mainly S7) will increase it even further. Therefore it is reasonable to consider tourism decentralisation to revive the more peripheral areas or even those neighbouring with the powiat and with good tourism development conditions. We should mention here the concept of a ring road around the Tatras (and more specifically the Tatra-Podhale-Pieniny area), which could revive development within the whole region, both in Poland and Slovakia, and create a kind of alternative or counterweight for the overcrowded Zakopane (Nowy Targ, Piwniczna, etc.).

WADOWICE POWIAT

Wadowice Powiat lies at similar distances from the longitudinal Katowice-Žilina route running via Zwardoń and from the Kraków-Zakopane road, so it benefits from Variant G and from the “Tatra” variants (D, E, I, J) to an equal degree. Thanks to these projects the connections with Slovakia (Kraj of Žilina, Low Tatras) improve, as does the poviat’s accessibility from the south, which may be crucial for promoting pilgrimage tourism (Wadowice is the place of birth of John Paul II, while Kalwaria Zebrzydowska is a Sanctuary of Our Lady listed by UNESCO). It seems that the relatively most beneficial option for tourism development would be the modernisation of National Road 28 (to Rabka) and creation of a westbound connection with Bielsko-Biała (Road 52) and thus with the Czech Republic. The second most important undertaking would be to improve the connection with Katowice (roads 28 and 44 or 28 and 781). It is noteworthy that the current travel time between Zakopane and Wadowice, calculated on the basis of the traffic speed model used in the project, is 82 minutes, which is too long to encourage potential one-day visitors from Zakopane. What should also be stressed is the transit character of the poviat on the way between the conurbation of Katowice and the Tatras, and in a much wider context, along the route from Germany to the mountains (A4 motorway).

3.3. THE PODKARPACKIE VOIVODSHIP

BIESZCZADY POWIAT

This poviat is located peripherally in southeastern Poland. Travelling from Kraków to Ustrzyki Dolne takes 206 minutes. From the perspective of its external accessibility, all the three main road routes running in its vicinity are important for the poviat. A prerequisite for accessibility improvement (within Poland and with Slovakia as well as in European terms) is the construction of the latitudinal motorways – the A4 in Poland and D1 in Slovakia (both reaching as far as the Ukrainian border). For the shortening of travel time achieved by these investments to also be noticeable in the peripheral Bieszczady Mountains, the longitudinal S19/R4 route is required, along with a branch road from Krosno to Sanok. The branch road is provided for in the new Polish National Spatial Organisation Policy (KPZK 2030), adopted by the government in December 2011.

As regards the road investments considered in the individual variants, the closest variant is F (bringing the S19/R4 (E371) up to dual carriageway standard). However, the longitudinal course of the route and its substantial remoteness from the poviat borders cause the benefits of the investment to be negligible. The A4 motorway can be of much more benefit, as it will improve the accessibility of the Bieszczady Mountains for visitors from Kraków, Katowice and Wrocław, provided such distant mountains are perceived as an attractive recreational area compared to the cities’ favoured mountains (Tatras, Beskid Źywiecki, Sudetes – the travel time from Kraków is expected to shorten to just 37 minutes, compared to the current 3.5 hours mentioned above). Local accessibility would be most improved thanks to the modernisation of Road 867 (via Cisna and Komańcza to Tylawa, where it would connect to Route S19). This could have a positive effect, as it would activate the area, which offers a perfect

penetration channel for one-day trips. Of utmost importance in the northern part of the powiat would be the upgrading of roads 28 and 84, which are the main access routes from other parts of Poland, including Warsaw.

BRZOZÓW POWIAT

As far as its external accessibility is concerned, the most important undertaking for the Brzozów Powiat is the A4 motorway and the Rzeszów-Prešov stretch of the S19/R4 expressway. To an extent, the construction of the D1 route in Slovakia will also be significant. To the west, the Brzozów Powiat has the optional Rzeszów-Prešov dual carriageway (Variant F). This enables it to benefit from the strengthened interlinks in this longitudinal road corridor, especially within Slovakia, and take advantage of the temporal proximity of Rzeszów. Once this route is completed, the travel time from Brzozów to Rzeszów will shorten from the current 43 minutes to 32 minutes, and that to Prešov from 107 to 87 minutes. In the latter case, the solution will give acceptable short-term travel times, e.g. weekend excursions. However, as regards the range of impact, neither the current nor the expected times are too burdensome, yet they may be an issue during morning and afternoon peak hours, when congestion occurs. It must be emphasised that in terms of tourism development the construction of the S19 will improve the accessibility of the churches in Blizne and Haczów, which feature on the UNESCO World Heritage List.

JAROSŁAW POWIAT

The simulations for the different variants indicate that the powiat will benefit substantially from its location at the western end of the planned A4 motorway. Once it is completed, travel to the capital city of the voivodship, Rzeszów, will shorten considerably for places located to the west. For example, the travel time from Kraków will decrease from 183 minutes currently to just 103 minutes, and the time from Rzeszów from 45 to 35 minutes. Potentially, this makes the powiat much more attractive, and thanks to the future development of tourist facilities and attractions one could expect increased demand (the existing infrastructure is rather scarce – fewer than 1000 beds registered). In this situation, what is most likely is a growth in the number of one-day trips by the residents of Rzeszów (even though motorway tolls may be counterproductive here). On the other hand, the construction of the Rzeszów-Prešov expressway contributes to improving more distant longitudinal interrelations, leading to a potential growth in the social and economic benefits from this direction. In this variant, the travel time from Jarosław to Prešov shortens from 170 minutes to 135 minutes, and that to Krosno from 94 to 78 minutes. The powiat would also benefit from a potential liberalisation of the Polish-Ukrainian cross-border traffic, as it lies relatively close to Lviv, which has a large potential tourist population.

JASŁO POWIAT

Jaśło Powiat gains from the Rzeszów-Prešov expressway (Variant F), which gives it better southbound connections to the Slovak poviats (Svidník, Stropkov, Prešov). The construction of the Tarnów-Nowy Sącz expressway may also bring certain benefits. However, the greatest accessibility gains will result from the construction of the A4 motorway, which highly improves access for visitors travelling from Tarnów and Kraków.

Thanks to this investment the travel time from the capital city of Małopolska will shorten from 118 minutes to 101 minutes, which is not a great difference, but may have a significant psychological impact, stimulating short-term trips (especially weekend excursions) and the construction of “second homes”, etc. What would be important for these interlinks, among others with Tarnów, would be a bypass road around Pilzno (currently travel between Tarnów and Jasło takes 53 minutes).

KROSNO POWIAT

In terms of extension of the road system, this powiat would benefit most from Variant F (dual carriageway from Rzeszów to Prešov along the international E371 corridor). This road dissects the region north-south, offering better accessibility and the strongest links with Slovakia (especially the powiats of Svidník, Stropkov, Prešov). On the other hand, a faster connection with Rzeszów may generate stimuli for enhancing summer holiday functions (travel time from Krosno to Rzeszów will decrease from 56 to 42 minutes, with the effect likely to be even more significant considering current congestion). Moreover, travel to Prešov will shorten (from 92 to 74 minutes). In terms of external accessibility, the second most important investment for the Krosno Powiat is the Slovak D1 motorway. The A4 will also be highly advantageous. Thanks to its completion, the travel time from Kraków to Krosno will decrease from 138 minutes to 121 minutes, which suggests a likely increase in the demand from this direction. Improving the powiat's road network should be assessed in view of accessibility and supply of tourist attractions, notably the biggest ones, like the health resorts of Iwonicz Zdrój (and Rymanów Zdrój) and the crude oil museum in Bóbrka.

LESKO POWIAT

In terms of the powiat's external accessibility, all three main road routes established in its vicinity are important. A prerequisite for accessibility improvement (within Poland, between Poland and Slovakia and in the European context) is the construction of the latitudinal motorways – the A4 in Poland and D1 in Slovakia (both reaching as far as the Ukrainian border). For the shortening of travel time achieved by these investments to also be noticeable in the peripheral Bieszczady Mountains, the longitudinal S19/R4 route will have to be constructed, along with a branch road from Krosno to Sanok. The branch road is provided for in the new Polish National Spatial Organisation Policy (KPZK 2030), adopted by the government in December 2011.

The powiat lies in the south-east peripheries of Poland and at a substantial distance from Variant F (S19/R4/E371 dual carriageway). This is why the benefits from this and the other investments may be negligible. It seems that of the utmost importance in terms of accessibility and improving the supply of tourist attractions is the modernisation of Voivodship Road 867 (via Cisna and Komańcza to Tylawa, where it would connect to the S17 route) and improving the standard of the connection with Slovakia near the towns of Palota and Radoszyce. The latter would improve penetrability for tourists using the accommodation facilities, which are far better in Poland. To sum up, the analyses suggest that the travel time from Kraków to Lesko will shorten from 189 minutes currently to 170 minutes (Variant K – Tarnów-Prešov expressway), 157 minutes (Variant F) or 151 minutes (Variant F and completion of A4).

LUBACZÓW POWIAT

The situation in this powiat will improve primarily after the planned A4 motorway is completed. As a result, access to the powiat from the west will be better, making it likely for there to be growing demand among the residents of the larger centres located in southern Poland, especially Rzeszów and Kraków. The travel time from Lubaczów to Rzeszów would reduce from 83 to 35 minutes, and that from Kraków from 221 to 106. In the former case, one may expect growing popularity of short-term tourism, including one-day trips, and in the latter case, longer stays for recreational purposes. This may be vital for the region, which has limited tourist facilities (fewer than 1000 beds, mainly in Horyniec-Zdrój), but is attractive for its nature and scenery. On the other hand, the longitudinal Rzeszów-Prešov route (dual carriageway standard) does not have a direct effect on the region, but contributes to shortening of travel times, mainly at greater distances. For example, in this variant the travel time from Lubaczów to Krosno shortens from 131 minutes to 125 minutes, but that to Prešov from 208 to 183 minutes. This time shortening does not translate, however, into a corresponding increased interest on the part of Slovak visitors, due to the disproportionately low supply of local tourist attractions compared to the distance covered. Due to its location, the powiat would benefit from a potential liberalisation of cross-border traffic between Poland and Ukraine.

PRZEMYŚL POWIAT

Przemyśl Powiat, located in the east, will benefit the most from the latitudinal A4 motorway, and to a lesser degree from the longitudinal S19 dual carriageway (Variant F, Rzeszów-Prešov). As a result of the former, the travel time from the large metropolises of southern Poland will diminish. For example travel from Kraków to Przemyśl will shorten from 207 minutes currently to 125 minutes. It may be concluded that the demand is very likely to increase, but the insufficient supply of tourist attractions may prove to be an obstacle. On the other hand, the longitudinal section of the S19 route will improve the connections with Slovakia, but more significant changes could be expected from a major modernisation of National Road 28, connecting Przemyśl with this route southwards (via Sanok and Krosno).

PRZEWORSK POWIAT

The Przeworsk Powiat benefits mainly from the A4 motorway. Its completion will highly improve the accessibility of Przeworsk from the west, potentially increasing its popularity, especially among the residents of the large agglomerations of Kraków and Rzeszów. Depending on the distance, one may expect increased inflow of visitors in the segment of short- and medium-term trips. The driving time from Kraków to Przeworsk shortens from 171 to just 99 minutes, and that from Katowice from 201 to 133 minutes. Generally, the future demand may not necessarily be proportional to the shortening of travel time, as the general supply of tourist attractions in the powiat compared to other places is not very impressive. Moreover, an eastbound exit road from Rzeszów could stimulate one-day trips, although this is not so certain, as currently the time needed to cover the distance is not very burdensome (35 minutes, and after completion of the A4, 28 minutes of car travel to the capital of the Przeworsk Powiat). The longitudinal Rzeszów-Prešov route analysed in Variant F

also shortens travel times, especially at long distances (Przeworsk-Krosno – reduction from 82 to 71 minutes, Przeworsk-Prešov – from 158 to 128 minutes). Thus the potential bond or gravitational forces increase, depending on the time needed to cover the distance, although the related gains will not be substantial due to the poor tourist potential.

RZESZÓW POWIAT

Rzeszów Powiat, including the city of Rzeszów (with powiat rights), benefits from several of the road variants analysed. In the macroregional context, the most beneficial option is the construction of the A4 motorway, as it will provide better connections between the capital city of Podkarpacie and other large urban areas in southern Poland. After the A4 is completed, the travel time from Kraków will shorten from 137 to 86 minutes, and that from Tarnów from 73 to 58 minutes. This will provide much better possibilities of developing interlinks and increases the demand for tourist services in the region. The second most important undertaking is the extension of the longitudinal S19 route (to Prešov), which strengthens the ties in the Polish-Slovak cross-border area considerably and facilitates a more liberal tourist exchange. As a result of this investment, the driving time between Rzeszów and Prešov shortens from 134 to 100 minutes, which creates opportunities for intensifying not only long-term but also short-term stays, over a much larger area than so far. It should also be stressed that as a result of the completion of A4 and S17, the supply of tourist highlights accessible from Rzeszów within its 45-minute isochrone will grow as much as three times, which may stimulate the popularity of one-day tourism among the city residents. At the same time, the residential suburbanisation process and the development of summer holiday functions in the area of Rzeszów will get a far stronger stimulus.

SANOK POWIAT

The Sanok Powiat benefits directly from Variant F (Rzeszów-Prešov dual carriage-way). However, due to its slightly peripheral location, the “hard” benefits of shortening travel time will not be significant. After the S19/E371 route section concerned is commissioned, the driving time from Sanok to Rzeszów will shorten from 65 to 52 minutes, and that to Prešov from 138 to 112 minutes. Moreover, in this variant the supply of tourist attractions within the 45-isochrone does not change significantly (for Sanok the growth is nearly unnoticeable and amounts to just 1%). What is of greater benefit is the more remote A4 motorway. Its completion will significantly shorten travel from western directions, e.g. the travel time from Kraków to Sanok will be reduced from 176 currently to 144 minutes, and that from Tarnów from 112 to 102 minutes. This improves demand, mostly in the long-term tourism segment, but also in the context of shorter heritage tourism trips (especially among people keen to visit the Museum of Folk Architecture in Sanok). Additionally, extending the northbound latitudinal routes from the powiat will slightly increase the supply of tourist attractions within the abovementioned 45-isochrone (by 7 %). What is important for the powiat is the branch road from Krosno to Sanok, which is provided for in the new Polish National Spatial Organisation Policy (KPZK 2030), adopted by the government in December 2011.

STRZYŻÓW POWIAT

The Strzyżów Powiat benefits mainly from the construction of the Variant F expressway (Rzeszów-Prešov). As regards the impact of transport on tourism development, the S19 dual carriageway route planned in the powiat is to work in two ways. Firstly, considering the proximity of Rzeszów, there is a high likelihood that the powiat will see an intensification of suburbanisation processes, enhancing holiday and recreational functions, e.g. the construction of first and second homes (improved natural living conditions are the main incentive for both forms of settlement), and stimulating one-day trips. Secondly, providing better connections southward enhances the likely tourist exchange of local inhabitants residing along the corridor. The analyses show that in Variant F the driving time from Strzyżów to Prešov will shorten from 118 to 93 minutes. Important for the temporal and spatial accessibility of the powiat is the construction of the A4 motorway. As a result of this investment project, the powiat should benefit from increased demand from the west, including Kraków, but due to its generally poor supply of tourist attractions this is rather unlikely.

3.4. THE ŽILINA KRAJ

BYTČA OKRES

As regards its external accessibility, the powiat will benefit from the investments on the Polish side of the border, including the Polish A1 motorway and the potential S52 expressway (Kraków-Bielsko-Biała). Road connections with the Czech Republic are also important, as is the Žilina-Bielsko-Biała expressway. Thanks to this, the powiat will gain much better northbound connections from Žilina. Likewise, the D1 motorway, especially along its Žilina-Ružomberok section, provides better access to the Lesser Fatra and Low Tatras and thus also to the attractive local ski resorts and water parks (Bešeňová and Liptovský Mikuláš). Generally, completing the entire D1 route should create synergy effects for Bytča Okres, as it lies along the most important road corridor in Slovakia. The analyses indicate that once all the planned and optional road projects are completed, the travel time from the okres capital to Liptovský Mikuláš will reduce from the current 97 minutes to a mere 47 minutes, and that from Kraków from 163 minutes to 112 minutes.

ČADCA OKRES

As far as its external accessibility is concerned, Čadca Okres benefits primarily from the investments delivered in Poland. This mainly concerns the S69/R3 expressway and the proposal to bring the Kraków-Bielsko Biała road up to expressway standard. Investments within the “Czech access channel” are also important for improving accessibility. In this context, the links within Slovakia are the most beneficial (proximity of the D1).

Considering its location, Čadca Okres gains the most from extending the motorway (on the Slovak part of the border) and the Žilina-Bielsko Biała expressway (in Poland). Firstly, access time shortens, both from Bratislava and Katowice, which should stimulate winter sports activity (Oščadnica and Velká Rača resort). As shown by the simulations, once the planned D3 motorway is extended, the cumulative accessibility

of tourist attractions within the 45-minute isochrone will increase by over 60%. The second factor stimulating the region's development after the D3 is completed is the synergy effect arising from the proximity of the border, which is vital both in terms of creating a natural "base for escapades" and for contacts with the Polish areas interested in penetrating the Slovak borderland. On the other hand, connecting the road system to the D1 motorway will offer better accessibility of the Tatra region, but this will not be impossible without supplementary solutions.

What matters locally for the Velká Rača skiing station is the completion of the cross-border road between Oščadnica-Vreščovka and Bór, which is mainly located in Slovakia.

DOLNÝ KUBÍN OKRES

The greatest benefits for the okres in terms of external accessibility are linked to the R3 expressway (leading from Banská Bystrica to the border crossing in Chyžné and further on to Kraków – Variant E). As a result of this project, travel times to Dolný Kubín will decrease: from Kraków from 107 to 83 minutes, from Katowice from 135 to 110 minutes, and from Banská Bystrica from 76 to 51 minutes. This will markedly improve the attractiveness of short-term tourism in the region, e.g. holiday tourism from the above population concentration areas. The second most important road investment for the poviat is the Slovak D1 motorway, or, strictly speaking, its full completion (as far as the Ukrainian border).

An interesting option for the development of the okres is also Variant J (Twardożyn-Czarny Dunajec), which situates Dolný Kubín along the Tatra region bypass considered in the variant. It ensures better penetration possibilities for tourists staying within the okres, as well as a wider range of impact of its facilities, e.g. water parks (Aquarelax Dolný Kubín) or historic monuments (Orava Castle). On the other hand, the simulations carried out for the other variants, e.g. G (Žilina-Bielsko-Biała) or I (Zakopane-Poprad) reveal no major impact. It should also be stressed that the existing bypass roads along the R3 expressway (Trstena, Oravský Podzámok) very much improve the accessibility of the okres.

KYSUCKÉ NOVÉ MESTO OKRES

The okres is located along the E75 route, which has a European impact; therefore Variant G is of the greatest benefit here (high traffic capacity Bielsko-Biała-Žilina dual carriageway). It provides better connections with Poland and penetrability of the potential offered by the Żywiec Basin and the areas of Wiśla and Ustroń, as well as better accessibility from Poland southwards. The okres gains from the investments across the border (e.g. Polish A1, potential S52 road between Kraków and Bielsko-Biała) and from the Slovak D3. In view of its location and historical traditions, Kysucké Nové Mesto has a good potential for strengthening its role as a tourist destination. What is more, compared to the much bigger Žilina, once the planned D3 motorway is completed, the okres will gain the competitive edge of being a more convenient stopover place along such routes as Bratislava-Katowice. Moreover, Kysucké Nové Mesto will benefit from Variant H (completion of the D1), which will provide a good connection with the Tatra region. The simulations show that once it is commissioned the travel time from Kysucké Nové Mesto, e.g. to Liptovský Mikuláš, will reduce from 94 to 61 minutes.

LIPTOVSKÝ MIKULÁŠ OKRES

The future changes in the okres's accessibility depend on the projects on both sides of the border. Of key importance here is the Polish S7 expressway and the Slovak D1 motorway. For Liptovský Mikuláš, the completion of the D1 motorway will improve accessibility by 34%. A further factor with a major impact is the potential construction of the S7/R3 road (along its full course from Kraków via Chyżne, as far as Banská Bystrica). The effect of this undertaking is nearly equal to that of the D1 (accessibility improvement by over 33%). The benefits are to be noticeable, even if the construction of the S7 stops at Chyżne (i.e. the R3 in Slovakia is not built).

In the regional context, the simulations of the road system development projects near the okres prove their significant impact. This is linked to the fact that Liptovský Mikuláš lies within the Polish-Slovak cooperation area. The travel time shortens across the variants, especially along the Slovak-Polish routes. For example, in Variant J (Tatra ring road), the driving time from Nowy Targ shortens from 90 to 75 minutes, and in Variant E (northbound expressway from Banská Bystrica towards the border with Poland in Chyżne and further north), to Kraków, from 138 minutes currently to 105 minutes. This means a far better impact in terms of attracting tourists from large urbanised areas, especially in the context of short-term tourism, e.g. weekend trips. The most spectacular option in terms of expanding the market base would be Variant I (expressway from Zakopane connecting to the D1 east of Liptovský Mikuláš with a tunnel under the Tatra Mountains), thanks to which the travel time from Zakopane would shorten to only 38 minutes, and the time from Kraków to 99 minutes. Additional calculations show that in such a case the range of the 1-hour isochrone of the large Tatralandia swimming pool complex could expand over a territory covering nearly 15 million person-nights annually (currently approx. 7 million). This would result from the shortened distances to some Polish tourist spots, notably Zakopane. Nevertheless, this rather futuristic and non-feasible project clearly illustrates the huge opportunities of extending the territorial scope of impact by providing high parameter roads. Moreover, it is important to note that the accessibility of attractions from Liptovský Mikuláš within its 45-minute isochrone does not increase so much for most of the simulations (maximally 129% in Variant J). This can be attributed to the existence of the D1, which already ensures perfect access to most of the attractions located along the route. More substantial growth would be produced by the very futuristic Variant I (accessibility of tourist attractions increases by 173%), as the territorial scope of impact would extend to the Polish Tatras and Podhale. The same applies to the winter sports centre of Jasna, in the case of which the potential attractiveness within the 45-minute isochrone will grow to the highest possible extent (notably in Variant E – by 8%).

MARTIN OKRES

Martin Okres benefits from the D1 motorway and the Žilina-Bielsko-Biała expressway extension. In the former case, the project substantially shortens the driving time from the okres capital to, for example, Liptovský Mikuláš (from 57 to 37 minutes) or to Poprad (from 88 to 69). It will extend the range of weekend trips considerably, both for people staying in the Low Tatras and for those in the okres itself. On the other hand, the planned Žilina-Bielsko-Biała route will shorten the travel from the town of Martin e.g. to Ošadnica from 72 to 60 minutes (and both routes, the D1 and D2, from 72 to

50 minutes). Once the road projects are completed the 45-minute isochrone will extend to cover many more tourist attractions (at least 50% more than currently), which will improve tourism development possibilities. As regards longitudinal projects, the S7/R3 expressway route is important, provided it extends as far as the D1 motorway.

NÁMESTOVO OKRES

Because Námestovo Okres lies in the borderland and far from the roads considered in the different variants, the simulations show a limited impact. Once the Žilina-Bielsko-Biała (Variant G) and Banská Bystrica-Kraków expressways are completed, the driving times from the town of Námestovo to the other places change in a moderately satisfactory way (e.g. to Kraków from 89 to 76 minutes). More impressive outcomes, including synergy effects of a cohesive transport network, would be generated by the modernisation of the connecting route between the above expressways, i.e. Road 78 from the town of Oravský Podzámok, together with its extension across the border, to Żywiec (Road 945).

RUŽOMBEROK OKRES

Ružomberok Okres gains mainly from the D1 motorway extension (Variant H). Its location by a high-ranking road significantly strengthens its general position in terms of settlement possibilities. The travel times shorten substantially, e.g. from Ružomberok to Žilina to merely 35 minutes (from 67 minutes currently) and to Košice to 96 minutes (from 123 currently). This makes the okres's tourist attractions much more readily accessible for tourists residing along the D1 motorway (Žilina, Liptovský Mikuláš, Poprad), which will increase the number of visits to places such as the village of Vlkoš (listed by UNESCO). However, the most significant fact is that the longitudinal E77 road (expressway standard) will run across the okres and will generate additional synergies.

TURČIANSKE TEPLICE OKRES

Turčianske Teplice Okres, situated in the south-western end of the Slovak-Polish cross-border cooperation area, improves its accessibility thanks to the extension of the D1 motorway (Variant H) and the Žilina-Bielsko-Biała expressway (whose standard will probably be that of a motorway – Variant H). However, as the okres is located rather far from these routes, the gains in terms of shortening of travel time are observable only at longer distances, e.g. to Bielsko-Biała (from 141 to 88 minutes) or to Košice (from 183 to 128 minutes). Improving accessibility matters mainly with respect to the accessibility of the local health resort. However, the most substantial accessibility improvements, apart from the D1 and D3 motorways discussed above, should be expected from upgrading the 65/R3 road (there are already several expressway bypasses along it, e.g. around Horná Štubňa) and Road 14 (better connection with Banská Bystrica).

TVRDOŠÍN OKRES

Tvrdošín Okres benefits mainly from Variant E (Banská Bystrica-Kraków expressway). Thanks to improved traffic parameters, the car travel time from Tvrdošín to Kraków shortens from 87 minutes currently to 71 minutes, and that to Banská Bystrica from 97 to 67 minutes. This means improved attractiveness of the tourist spots within the

okres, including the West Tatra valleys (Juráňová, Tichá, Roháčska) and the Meander water park in Oravice. Also important for heritage tourism development is Variant J (ring road around the Tatra region), allowing the okres to be more easily reached from the Polish side of the border, and likewise from within Slovakia. Similarly, the improved access to the okres's tourist attractions from Zuberec shows that the Tatra bypass variant is a beneficial option in this context (increase by 17%).

ŽILINA OKRES

In the context of its external accessibility, this okres benefits a great deal from the Polish road projects. Apart from the S69-R5 expressway route, the potential S52 road between Kraków and Bielsko-Biała offers the greatest improvement of accessibility. The role of the investments on the Slovak side of the border is not substantial. Considering the proximity of the large Upper Silesia and Kraków conurbations and their still imperfect transport connections, the improvement in the accessibility of the tourist areas in the western part of the Polish-Slovak borderland depends mainly on what is delivered in Poland.

The okres is the starting point for an extension of the expressway to Bielsko-Biała (Variant G), in the case of which the greatest gains are linked to creating an effective connection between the two major destinations in Slovakia and Poland. The analyses show that the travel time between these two cities will reduce from 90 to 60 minutes. This provides real possibilities for achieving multiplier and synergy effects resulting from potential economic cooperation (the two already have partner city status). Also important are the changes in the road accessibility isochrone from Žilina itself for tourists staying in the city. As can be seen from the calculations, once the expressway is built, the number of tourist attractions within the 45-minute range will grow by 25%. Even more beneficial will be the construction of the latitudinal D1 route (along the Bratislava-Košice corridor), as a result of which the indicator will increase by 65% (altogether, both routes ensure a 90% growth). Similarly, thanks to the D1 the travel time from Žilina to Liptovský Mikuláš will reduce from 83 to 48 minutes. Undoubtedly, this will stimulate interest among the residents of Žilina (e.g. in the Bešeňová and Liptovský Mikuláš water parks), but one may expect a similar effect among tourists staying in the city, who will no longer face the time barrier to travelling to more distant locations. The area of Žilina Okres itself will benefit too, as its numerous attractions (notably the health resorts of Kúnerad and Rajecké Teplice, the Žilina old town and the ski resorts at the northern foot of the Lesser Fatra, e.g. Vrátna) will attract greater numbers of tourists from more distant places. Another important project for improving local accessibility will be the modernisation of the Žilina-Vrátna Valley road and the Žilina-Rajec road towards Prievidze.

3.5. THE PREŠOV KRAJ

BARDEJOV OKRES

Simulations of the changes in external accessibility to take place as a result of the main road projects indicate that Bardejov will mostly benefit from the completion of the D1 in Slovakia. The second most important project is the longitudinal route from Rzeszów to Košice via Barwinek (S19/R4 expressway). Moreover, the okres would certainly ben-

efit from the development of railway infrastructure along the Tarnów-Prešov line and from the construction of its missing section between Kraków and Nowy Sącz. This is all the more important, as the eastern part of the Polish-Slovak borderland suffers from poor accessibility by Europe-wide rail transport.

At present, Bardejov Okres has a fairly peripheral location. Its position would improve mainly thanks to Variant K (Tarnów-Prešov) and Variant F (Rzeszów-Košice), in the case of which the routes would bypass it in the west or east respectively. The roads considered in the variants would improve the okres's accessibility mainly in longitudinal terms. As regards Bardejov itself, it would become more attractive thanks to improved access to the tourist attractions located along the routes, but this would require connecting roads to be provided (i.e. by upgrading Road 77) from the city westward (to the city of Plavec) and eastward (Svidník). The former variant would be particularly advantageous, as it would provide a better connection to the Pieniny region, ensuring the desired synergy effects. Moreover, the analyses show that along the Bardejov-Szczawnica route the travel time in Variant J (upgraded ring road around the Tatras and the Pieniny Mountains, with dual carriageway sections) would shorten from 103 minutes currently to 89 minutes. Accessibility would also be improved thanks to the modernisation of the II/454 road (Prešov-Bardejov and Zborov-Becherov-Konieczna).

HUMENNÉ OKRES

The construction of the Slovak D1 motorway along its full length (as far as the Ukrainian border) would give the okres the most notable benefits. The second most beneficial option for Humenné is Variant F, i.e. bringing route S19/R4 (E371) up to a dual carriageway road standard. However, positive changes will not be clear, as the okres lies at a distance from the route. Once the dual carriageway is completed (it is partly ready – the Svidnik bypass), car travel times from the City of Humenné to Rzeszów will shorten from 138 minutes currently to 115 minutes. Undoubtedly, thanks to facilitated macroregional accessibility the overall attractiveness of the okres will improve too, yet the benefits would be greater if the mostly latitudinal westbound roads, connecting the okres with Košice and Prešov (roads I/18 and I/79), were upgraded.

KEŽMAROK OKRES

Future changes in the okres's accessibility depend on the undertakings to be delivered on both sides of the border. Of crucial importance here are the Polish D1 motorway and the S7 expressway. Inarguably, the most beneficial option would be to complete the D1 route. Also of significant impact is the construction of Road S7/R3 (as long as a branch road to Zakopane is also provided). Additionally, the okres benefits from the potential construction of the Tarnów-Nowy Sącz-Prešov expressway.

The biggest gains for the okres are expected from Variant J (ring road around the Tatra Mountains, Podhale and Pieniny Mountains with substantially increased traffic parameters – dual carriageway standard along some sections). Bringing the subregion within the range of impact of this route would potentially enhance the popularity not only of longer-term tourism (thanks to faster travel times from highly populated areas), but also heritage tourism, i.e. single-day visits (with no overnight stays). Considering its location, this would concern mainly Polish tourists staying overnight in the Pieniny

region. Importantly, once this route is modernised, the supply of tourist attractions in Červený Kláštor will not grow substantially (maximum by 10% within the 45-minute isochrone). Obtaining greater effects would require improved local accessibility and overcoming the Dunajec River barrier. Moreover, certainly important for the okres is the expansion envisaged in Variant K (longitudinal Prešov-Tarnów expressway), but rather in terms of penetration by tourists from more distant locations. According to the analyses, in the latter case the travel time from Prešov to Kiežmark will shorten from 63 to 51 minutes.

LEVOČA OKRES

Currently, the okres has good transport connections thanks to its latitudinal D1 motorway, which crosses it east-south. The road extensions planned will widen the scope of impact for potential tourists from more distant places in the country (Bratislava, Košice), but the potential gains will not be so great. For example, thanks to the completion of the D1 the travel time from Žilina will be reduced from 132 to 79 minutes.

In cross-border and external terms, the poviat benefits from the longitudinal routes, notably the Polish S7 expressway (provided a branch road to Zakopane is built) and the potential Tarnów-Nowy Sącz-Prešov expressway.

MEDZILABORCE OKRES

Medzilaborce Okres has a rather peripheral location. The most important project here is the construction of the Slovak D1 motorway along its full length. i.e. to the Ukrainian border. The okres should also benefit from bringing the S19/R4 (E371) route up to expressway standard, although the related gains will not be substantial, as the okres is located far from the corridor. Once this project is completed, driving times e.g. between Medzilaborce and Prešov will shorten from 77 to 71 minutes, and those to Rzeszów from 109 to 94 minutes. It would be of more benefit to improve the technical and functional parameters of Road 575 and modernise the road connecting Medzilaborce with Poland near the town of Palita/Radoszyce. Accessibility would also improve as a result of provision of a border crossing in Čertižné–Czeremcha.

POPRAĐ OKRES

The future changes in the accessibility of the okres depend on investment projects delivered on both sides of the border. Of crucial importance here are the Polish D1 motorway and the S7 expressway. Inarguably, the most beneficial option would be the completion of the D1. In Poprad, this would improve accessibility by 34%, and in Stary Smokowiec by 27%. The construction of the S7/R3 road will also have a major impact (provided a branch road to Zakopane is also built). Additionally, the okres will benefit from the potential construction of the Tarnów-Nowy Sącz-Prešov expressway.

The Poprad Poviát is situated near the roads simulated in the different variants, but this does not turn out to have a major significance for improving its external accessibility. Among all the feasible variants, the most beneficial one is J (high-capacity ring road around the Tatra region). However, after its construction the accessibility of tourist attractions within the 45-minute isochrone from the city of Poprad grows by a mere 4%. This is due to the fact that most of the “valuable” attractions are located in its nearest surroundings. It is only the simulation of the rather futuristic Variant I (expressway

from Zakopane connecting to the D1 motorway south of Liptovský Mikuláš with a tunnel under the Tatras) that ensures an increase of 16%, but this is not spectacular either. Slightly different and more significant changes are observed in terms of shortening of travel times, notably at longer distances. The travel time to Poprad shortens for the following selected towns and variants: Kraków (at present 129 minutes; in Variant E 121 minutes; I – 99 minutes; J – 115 minutes), Nowy Targ (at present 63 minutes; E and J – 62 minutes; I – 51 minutes) and Košice (at present 96 minutes; H – 72 minutes). All in all, the simulations indicate very significant possibilities for extending the scope of impact and demand, but at longer distances.

PREŠOV OKRES

The okres benefits from the completion of the D1. In cross-border terms, the Rzeszów-Prešov and Prešov-Tarnów roads are of the greatest significance. In Variant F the car travel time to Rzeszów shortens from 134 currently to 100 minutes, i.e. by a quarter. Similarly, Variant K shortens the travel time to Tarnów from 149 to 113 minutes. This provides a far greater potential for strengthening cooperation, including tourist activation. What may be a hindrance here is the relatively poor demand, as neither Rzeszów nor Prešov and Košice are large urban agglomerations generating a high demand for tourist services. Compared to the current situation, some of the road system development variants considered suggest a substantial growth in the supply of tourist attractions within the 45-minute isochrone (K – 40%, F – 32%). To improve the accessibility from Prešov eastwards, existing routes would have to be modernised, e.g. roads I/18, I/73 or II/545, towards Bardejov.

SABINOV OKRES

The okres is located along the K-variant route (Prešov-Tarnów expressway). The K scenario could attract more tourists from the north, although due to the relatively lower supply of tourist attractions there (compared to the other okreses), this does not seem so obvious. What would be more probable is a rise in the number of medium and long-term stays, which would be desired in terms of reviving the Šariš region in economic terms.

SNINA OKRES

This okres has a peripheral, south-eastern location, so the regional benefits of the road extension scenarios may be basically indiscernible. In the (geographically) nearest Variant F (construction of the Prešov-Rzeszów dual carriageway along the international E371 corridor), the okres capital will be located 50 km away from this road corridor in a straight line. Therefore the supply of tourist attractions within the 45-minute isochrone will not change, nor will the driving times to the other capitals of the Kraj of Prešov improve.

STARÁ ĽUBOVŇA OKRES

The most beneficial options for the okres are Variant K (longitudinal Prešov-Tarnów expressway) and Variant J (ring road around the Tatras, Podhale and Pieniny Mountains with much faster traffic parameters than currently and dual carriageways along some sections). The former ensures better accessibility and attractiveness on the regional or

even national scale, while the latter ensures streamlined local transport. Should Variant K actually be delivered, the travel time from Stará Ľubovňa to Kraków will shorten from 122 to 100 minutes, and that to Prešov from 56 to 43 minutes. Improved accessibility will be a development factor for places offering e.g. hot springs (Vyšné Ružbachy).

From the regional perspective, accessibility would be improved by the construction of a new bridge across the Poprad River between Mníšek nad Popradom and Piwniczna.

STROPKOV OKRES

The okres benefits mainly from Variant F (Prešov-Rzeszów expressway), with the road bypassing the region to the west (in the neighbouring Okres Svidník). This will mainly improve the okres's connections with the regions situated north of it, across the Polish border (Krosno, Strzyżów, Rzeszów). For example, the travel times for the town of Stropkov will shorten as follows: to Krosno – from 55 to 48 minutes, and to Rzeszów – from 97 to 74 minutes. The changes in the okres should be seen in a wider context of activating this peripheral region of eastern Slovakia. Regional accessibility could be improved by the upgrading of roads I/15 (towards Vranov nad Topľou and Świdnik) and II/575 (towards Medzilaborce).

SVIDNIK OKRES

The powiat stretches along the Prešov-Rzeszów road (Variant F) and benefits from the strengthened northbound connections, already across the border (the poviats of Krosno, Strzyżów, Rzeszów). Yet fuller synergy effects can be expected from the parallel opening of the Polish S19 section. Following this, the travel time from Svidník to Rzeszów will shorten from 87 minutes currently to 65 minutes. In terms of tourism development, the modernisation of the road will highly improve the accessibility of the historic local wooden buildings, mainly the churches located in the northern part of the powiat (at the Polish border, e.g. Lodomirová). Regional accessibility would also improve thanks to the modernisation of the I/77 road to Bardejov.

VRANOV NAD TOPĽOU OKRES

Considering its location, the powiat would benefit most from Variant F (Prešov-Rzeszów), and then Variant K (similar Prešov-Tarnów road). In the former case, the route runs across the okres in the north, significantly improving northbound accessibility, but only at longer distances. For example, travel between the town of Vranov nad Topľou and Svidník Okres shortens from 47 minutes currently to 44 minutes (i.e. only a 3-minute gain). More significant outcomes could be expected from the modernisation of Road 18. Notably, gains are much bigger with longer distances (Variant K means a reduction of the travel time between Vranov nad Topľou and Stará Ľubovňa from 90 to 69 minutes). Improving the standard of the I/18 road would also be effective.

4.

BEST PRACTICES OF TRANSPORT AND TOURISM DEVELOPMENT

4.1. TATRA ELECTRIC RAILWAY (TEŽ)

The local lines of Tatra Electric Railway (TEŽ) No 183 Poprad - Starý Smokovec and No 184 Tatranská Lomnica – Starý Smokovec – Štrbské Pleso and the line of Cog Railway (OŽ) No 182 Štrba – Štrbské Pleso play an important role in passenger transport in the region of the Tatras. TEŽ also connects the city of Poprad (located on the main rail route Bratislava – Žilina – Košice) with the most important tourist centres of the High Tatras (Starý Smokovec, Štrbské Pleso and Tatranská Lomnica). OŽ transports passengers between the railway station Štrba and Štrbské Pleso.

Operation of the cog railway was launched in 1896, railroad Poprad – Starý Smokovec was used for the first time in 1908, stretch Starý Smokovec – Tatranská Lomnica in 1911 and stretch Starý Smokovec – Štrbské Pleso in 1912. The railway company planned to further expand the network of the Tatra electric railways. In 1913 the company was granted a concession for construction of the railway from Štrbské Pleso to Podbanské and it also considered extending the railway to Liptovský Hrádok with a branch leading to Popradské Pleso and construction of railway from Tatranská Lomnica to Tatranská Kotlina and Levoča. Implementation of these plans was halted by the World War I (Kubáček, 1999).

Project Alweg represent an interesting design of solution to transport in the High Tatras. In 1959 the Cabinet of the Czechoslovak Socialist Republic asked the Transport Ministry to develop a study of prospective transport solution in the High Tatras. In 1960s a team of young architects prepared for those times rather futuristic project, which resolved obsolete transport in the High Tatras with a single track on pillar by Alweg system (Krajčovič, 2002). Project Alweg – overhead track with four stations (Poprad-the Tatras, Starý Smokovec, Štrbské Pleso, Tatranská Lomnica) between which the vehicles were supposed to run on concrete beams at the speed of over 50 km per hour. The length of stretch Poprad – Smokovec was 11.3 km and stretch Štrbské Pleso – Tatranská Lomnica was 19.5 km long (Tůma, 2000). Individuals, companies and institutions provided financial contributions to implement the project. However, the project was cancelled by the Transport Ministry of the Czechoslovak Socialist Republic and the collected money disappeared. Before the World Ski Championship held in 1970 the track of the Tatra Electric Railway was partly modernized, new vehicles were bought and some stations were reconstructed. Modern low-floor electric trains were put into operation in 2000.

Line Poprad – the Tatras – Starý Smokovec – Štrbské Pleso contains 15 TEŽ stops and line Starý Smokovec – Tatranská Lomnica contains another 5 stops; OŽ line offers only 3 stops. At present 18 trains a day run on these lines every day in rather regular hourly intervals. OŽ and TEŽ lines are interconnected in most cases.

Advantages of TEŻ include the possibility to transport large numbers of passengers and its ecological character.

4.2. RAILWAY AROUND THE TATRAS

The idea of having a railway around the Tatras is not a new one. It goes back to the times of the Austrian rule, when Emperor Franz Joseph planned to have a railway connection from Tatrzańska Łomnica to Zakopane and to the Morskie Oko Lake. During the interwar period intensive design work on this project was carried out in both Poland and Czechoslovakia. In 2006, in the Tatra Starosty, a meeting dedicated to reviving this one-hundred-year old idea was held. In 2010, in an interview for *Gazeta Krakowska* (March 27th, 2010), the mayor of Zakopane Janusz Majcher mentioned the fact that the Slovakian side was determined to obtain European funds for building the railway line around the Tatras.

The authorities in Zakopane appreciated the need to extend to Poland the so-called *elektryczka* (electric railway) operating on the Slovakian side. This task would not require the digging of a tunnel, but would rather involve taking the railway line around the ranges of the High Tatras and Western Tatras. This would mean connecting the Tatra Powiat to the Slovakian railway system. On the eastern side the railway route would connect Tatrzańská Łomnica, Jurgów and Białka Tatrzańska with Poronin and Zakopane. On the western side (taking into account the most extensive variant) it would run from Liptovský Mikuláš, around the Choczańskie range to Zuberc, Orawica and to Kościelisko in Poland. The Polish western variant running along the entire foothills of the Tatras, via Zakopane, Kościelisko, Witów and Chochołów, was presented by Count Zamojski to the Minister of Railways as soon as the 19th century.

Some inhabitants of the Podhale region are rather sceptical about the idea of having a railway line around the Tatras. They argue that the railway would take the tourists away from Poland. The authorities of Zakopane, however, rightly state that even now tourists (especially the car-owning ones) can move freely around the Polish and the Slovakian Tatras, while the railway, if built, would only open new prospects, and would in itself become a tourist attraction carrying people between Zakopane, Tatrzańská Łomnica and Štrbské Pleso.

On the Polish side, this railway would offer a number of advantages. It would enable Polish tourists to get to a number of places such as the Kościeliska or Chochołowska Valley. This would also mean using a more environmentally friendly means of transport and, as a consequence, reducing the exhaust emissions on these routes which are now served by road transport. Although on the western side the demand for this kind of connection to Liptovský Mikuláš would certainly be of a minor nature, the section between Zakopane/Poronin and Tatrzańská Łomnica on the eastern side is certainly worth building. Should this railway route be built, closing of the overloaded Oswald Balcer road from Bukowina to Łysa Polana for private cars could be considered. Thus, both the eastern and the western part of the railway route could contribute to relieving the roads and diminishing the pollution of the environment, which in general would be beneficial for the National Park, even at the cost of the increased tourist traffic.

4.3. HISTORIC ZIGZAG RAILWAY OF NOVÁ BYSTRICA - VYCHYLOVKA AND THE FOREST RAILWAY OF ORAVSKÁ LESNÁ

One of the most significant items of industrial heritage exploited by tourism in the Polish-Slovak boundary is the museum zigzag forest railway connecting the regions of Kysuce and Orava. For its parameters it is unique in Europe, as it is one of the two surviving zigzag or switchback forest railways in Europe. Historically it consists of two forest railways, one built in 1915 – 1918 1926 in Kysuce (Oščadnica – Vychylovka) and other in Orava (Lokca – Oravská Lesná). The resulting track was more than 110 km long (61 km of main track and the rest consisted of deviations opened and closed as logging proceeded). Operation of the track was closed in 1971. The track was mostly dismantled with the exception of an 8 km long stretch between Vychylovka in Kysuce and Tanečník in Orava with the unique zigzag system. The track was registered as a National Cultural Monument in 1972.

It has served as a tourist attraction some decades in Kysuce, however the part located in Orava was only opened for tourists in 2008. The individual stretches in the two regions are run by different entities (Museum of Kysuce located in Čadca on the one side and the Museum of Orava of P.O. Hviezdoslav on the other) – the reason why organization and coordination of promotion is not ideal. Tourist season in Orava is active all year round and the historic train can carry tourists as far as the saddle of Beskydy with a viewpoint while the tourist season of Kysuce only lasts from May to October and landslides delayed reconstruction of the track. Presumably the two tracks will be connected in 2012 or 2013. The trip by the museum zigzag railway from Kysuce to Orava will become a unique attraction for visitors of the Polish-Slovak boundary.

4.4. BIESZCZADY FOREST RAILWAY

The history of the Bieszczady Forest Railway (BKL) commenced in 1898, when a line was opened operating over a distance of around 24 km, between Nowy Łupków and Majdan near Cisna. Earlier, the year 1872 witnessed the beginning of the First Hungarian and Galician Railway. It had a normal rail gauge and permitted the export of timber to the distant markets in Hungary and Austria. Łupków was the place where the main reloading square was situated and where timber was reloaded from the narrow-gauge railway wagons to the normal-gauge wagons.

The economic boom connected with the exploitation of forests resulted in the further development of the network of the narrow-gauge railway. Before World War I some more sections were built. Among others, they connected Majdan and Kalnica (16.1 km), Ustrzyki Górne and Sokoliki Górskie, and the branches leading to the sawmills (almost 40 km) and Beniowa and Potasznia (6.6 km). Before World War I the service on the Nowy Łupków–Cisna route operated from 6.00 a.m. to 8.00 p.m. There was a fixed timetable with two pairs of freight and passenger trains and five freight ones. The journey lasted almost two hours (Rygiel 2011).

During World War I the railway was used mainly as field railway, first by the Austrian and later by the Russian army. Some of the infrastructure, e.g. bridges, passes and rolling stock, suffered damage during the military activities.

After the end of World War I an economic boom took place connected with the restoration of independent Poland. The high demand for timber brought about an expansion of the network of narrow-gauge railways, among others in the Bieszczady Mountains. New sections of the railway network were then built. Among others they connected Rzepedź and Smolnik (15 km), with a branch to Mików (2 km), Komańcza Letnisko and Karnaflowy Łaz (7.5 km). There was also a branch of the Nowy Łupków–Kalnica line to Roztoki Górne (5 km).

During World War II the network of the narrow-gauge railway in the Bieszczady Mountains was used by the Germans. They adapted it in such a way that it served their military needs. The war as well as the subversive guerrilla activities brought about massive damage. The rails were dismantled and used partly for building shelters. The devastation of the railway infrastructure also took place after the end of World War II, as a result of the activity of the Ukrainian Insurgent Army.

After the war the management of the BKL was taken over by the State Forests. The reconstruction of the damaged infrastructure was connected with the decision to build a large timber processing plant in Rzepedź. Apart from that, the railway line was expanded as far as Moczarne (5 km). The total maximum length of the BKL network (along with its branches) amounted to about 130 km (without sidetracks) (Fig. 15).

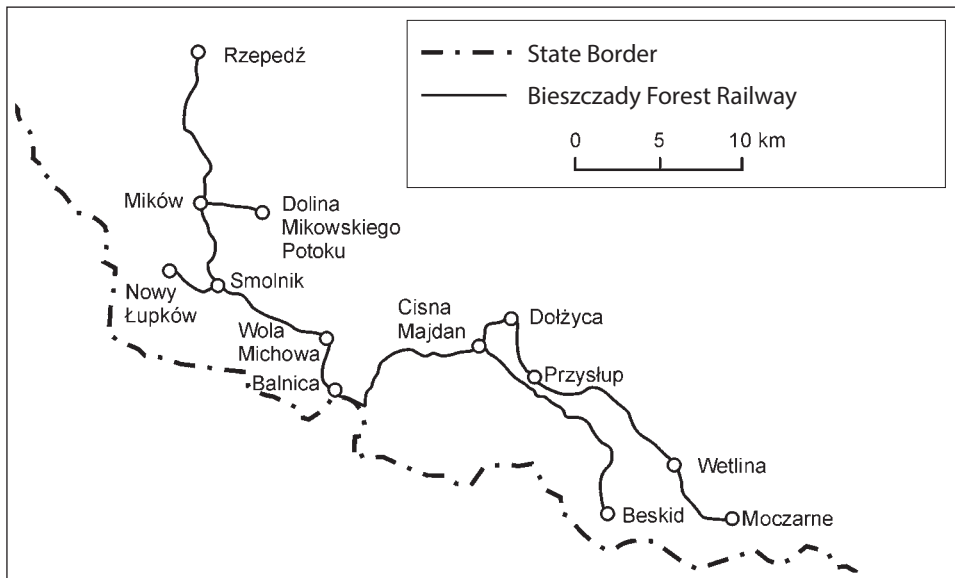


Figure 15. The maximum range of the network of the narrow-gauge Bieszczady Forest Railway

Source: Ciechański A., 2012.

The bankruptcy of the main timber recipient and the development of road freight transport resulted in a changed direction of timber transport. As a result, the Bieszczady railway experienced a gradual decline. In the first half of 1994 a passenger service was commenced on the Majdan–Wetlina route (around 14,000 passengers were carried by

the end of the year). At the end of the same year timber transport was stopped. This led to a debate concerning the future of the railway, which was listed on the region's register of historical monuments (the former Krosno Voivodeship). In 1996, the Bieszczady Forest Railway Foundation was set up.

The still functioning Łupków–Majdan section boasts the finest tradition. It is currently known as the Bieszczady Forest Railway. In the late 1990s, thanks to the efforts of the Foundation, the Majdan–Przysłop section underwent an overhaul. The existing rolling stock was revamped and a diesel locomotive was purchased. In 1997, it carried around 23,000 passengers. Owing to the financial means obtained from the European Regional Development Fund it was possible to carry out an overhaul of the railway station building, to upgrade and buy new rolling stock and to upgrade the railway subgrades (Wola Michowa–Smolnik). The project entitled “Restoration, Upgrading and Development of the Station, Subgrades and Rolling Stock of the Bieszczady Forest Railway in Majdan” was implemented as part of the Regional Operation Programme of the Sub-Carpathian Voivodeship for the years 2007–2013 (Priority line 6 “Tourism and Culture”). The total value of the project amounts to 1,756,413.58 PLN, including subsidies from the European Regional Development Fund in the amount of 690,710.00 PLN.

The constantly growing popularity of the Bieszczady Forest Railway is confirmed by the numbers of tourists carried, which amounted to 32,000 people in 2001 and reached 68,000 in 2010. The railway was also a winner of the best tourist product competition in the Sub-Carpathian region held by the Polish Tourist Organisation (2011). An interesting form of promotion of the Bieszczady Forest Railway is offered by the “From Niedźwiedz to Kij” ski runs organised periodically, whose route follows that of the railway.

4.5. PUBLIC TRANSPORT SYSTEM IN ZAKOPANE (MINIBUSES)

The political and economic transformations brought about reorganisation, privatisation and liquidation of a number of branches of PKS, the state bus company. The problems experienced by the former state carrier and monopolist were taken advantage of by private entrepreneurs offering transportation services for local communities, mainly over short distances. In Zakopane these services are also used by tourists, especially in the summer season. The connections provided offer transport from the town centre to the starting points of tourist paths (in summer) and to ski-lifts and skiing routes (in winter).

The dynamic development of private mass transport constitutes a good example of grassroots initiatives affecting the local economic development. The private transport system based on small vehicles (minibuses) has turned out to be better than bus transport using large, inefficient vehicles.

Advantages and disadvantages of minibus transport in Zakopane:

- A well-developed network of connections – gives freedom in planning mountain hikes without the necessity to return to starting points. Using one's own car does not allow for this, which is a particular hardship during the tourist high season. Minibuses provide good connections not only between tourist attractions but also between localities situated in the foothills of the Tatras, as well as in the town of Zakopane.

- Flexibility of functioning of the transport system. This has both advantages and disadvantages. The minibuses often change their routes (e.g. when the majority of passengers want to take a different route). For a certain group of people this is an unquestionable advantage, but for people waiting at a bus stop for a particular minibus this is an obvious disadvantage.
- High frequency of minibus connections – especially to the most popular places. A large number of connections are seasonal (e.g. to Kuźnice, Palenica Białczańska, Łysa Polana, Chochołowska Valley). The frequency of connections is lower off-season.
- It poses a problem that minibuses do not observe fixed timetables. In theory there are binding timetables, but in practice it often happens that a minibus leaves when all seats are taken. In the tourist season this may be of no significance, but off-season it may prove to be quite a nuisance.
- The acceptable price of services, owing among other factors to the considerable competition on the local transport market.
- The quality of services is still quite a drawback (especially the correspondence between the quality and the price).

In spite of these disadvantages, the functioning transport system should be considered good. It enables access to any place in the foothills of the Tatras. One should also note the development of new initiatives connected with transport services. In the winter season there are free ski-buses in the gmina Białka Tatrzańska. They connect particular ski-lifts and are financed by the skiing resorts. This brings protests from regular carriers, for which the ski-buses are major competitors. The development of transport services meant to serve the needs of tourists does not concern the Polish part of the Tatras alone, but has transcended the state border. A Polish carrier, STRAMA, has started running bus connections from Zakopane to Poprad (in the summer and winter tourist seasons) and to Liptovský Mikuláš (only in the summer season). On the Slovakian side the transport services meant for tourists are based on railway transport. There is no well developed minibus transport system equivalent to the Polish one.

4.6. AIRPORTS AND TRANSFERS SERVICES

An air journey to a holiday location has a number of advantages which certainly include time saving and comfort. The comfort is even greater when a traveller may get a comfortable transfer from the airport to his destination. The minibus transfer from the airport in Geneva to such resorts in the Alps as Chamonix, Morzine, Les Gets or Avioraz constitutes a good example of this practice.

Until recently, the principal town of the Polish Tatras, Zakopane, had no airport, while the nearby Slovakian airport at Poprad offered no flights to Poland. This has changed, as the EuroLOT airlines started, on December 8th 2011, to serve a regular connection between Gdańsk, Warsaw and Poprad. As of January 2012, there were two flights per week, i.e. on Thursdays and Sundays (since mid-April on Fridays on Sundays). The plane takes about 46–48 passengers and the journey from Gdańsk to Poprad, with an intermediate landing in Warsaw, takes 2 hours 45 minutes (from Warsaw 1 hour 20 minutes).

For the sake of the passengers' comfort a transfer service has also started from the airport in Poprad to Zakopane and from Zakopane to the airport in Poprad. The transfer times are coordinated with the flight schedule. Thanks to this, passengers may also get to the Polish side of the Tatras. The sales of the transfer tickets, to and from the airport, takes place through the contact centre and a single fare costs 40 PLN per person (when purchased in advance). Depending on the availability of free seats it is also possible to buy tickets from the driver. The price of a single ticket then amounts to 70 PLN per person. According to the carrier's information, the minibus departs only when there are confirmed bookings for a given transfer. For this reason passengers are encouraged to buy the transfer tickets in advance, either online or through the contact centre.

A similar possibility of transfer of passengers to tourist locations (including Zakopane) is also offered from Balice airport in Krakow. In winter 2011/2012, the Eurolot line in cooperation with the Via Vistula transport company started a transfer service between Krakow Balice airport and Zakopane and other places in the Podhale region (among others Rabka, Nowy Targ and Bukowina Tatrzańska). The transfer of passengers takes place "door-to-door". The way the system works is that for 69 zloty per person (and at a discounted price for groups) the ordered vehicle collects passengers from the car park at Krakow Balice airport and takes them to the specified address. The transfer to the airport functions in the same way. The minibus can take skis, prams and even bicycles. It is possible to arrange the seats in such a way that one can almost lie in them, and there is access to a Wi-Fi network.

4.7. AFFORDABLE "TRANSPORT ON DEMAND"

Transport "on demand", or rather "on call", is a more and more common solution in a number of countries of Western Europe. The advantage of this solution consists primarily in the fact that it can be used by clients from distant areas, who live or are staying too far away from the regular stops of the public transport service. It also provides for the possibility of taking tourists to the place of their accommodation late in the evening or at night when regular transport is either no longer available or operates less frequently. Transport "on call" therefore constitutes something in between traditional public transport and a taxi. This solution may also be used in places which have so far been served by traditional public transport, but where the number of passengers is not sufficient to make a given connection profitable. For instance, in the German town of Heinsberg, which has a population of 30,000, customers call the call centre asking for a bus at least half an hour in advance of the planned departure and after they leave their home, at a particular time, the minibus waits for them at their door or at the nearest bus stop.

There seem to be no obstacles in also implementing this solution in the region of Podhale or in the Bieszczady Mountains, where tired "wanderers" often leave tourist routes at a time when the last regular bus or minibus has long departed. Tourists, who usually have mobile phones, could just make a call and ask for a minibus at a particular stop. This service could replace the last scheduled bus connections and could be used not only by tourists but also by the inhabitants of distant places. Transport on call is a solution, which fills the gap between public and private transport. The operating

costs of this solution involve the cost of maintaining (buying) a minibus and those of remunerating the person working at the call centre. Apart from this are the marketing costs, which are necessary in order to inform the local community and tourists about the opportunities which the “minibuses on call” create. It should be noted that in order to reduce the costs of the whole enterprise, the call centre may be used for a number of other purposes, and not only for the “transport on call”. It is important to respond quickly to clients’ changing needs and to choose the routes and the area of operation in a flexible manner.

Transport “on demand” is successful in a number of tourist regions, e.g. in Switzerland, where PubliCar has been in operation since 1995. At the beginning it was meant as a pilot project. Today, it functions successfully in as many as 32 regions of the whole country. On average in Switzerland this system serves about 20–30,000 people a year. As for the prices in Switzerland, the passengers pay only a small fare amounting to about 2 euro, which is basically comparable to the price of a traditional public transport ticket.

4.8. TRIPOINT – WHERE THE BORDERS OF THREE COUNTRIES MEET

Before the division of Czechoslovakia, the current Tripoint area was not considered a tourist attraction. Only with the appearance on the international arena of two separate states, Slovakia and the Czech Republic, was there an impulse for the joint promotion of this region. The Tripoint is located in the area of three gminas (Istebna, Čierne, Hrčava) in the valley of a small stream in the central part of its course. A stone obelisk marks precisely the meeting point of the borders. It constitutes the centre of the circle circumscribed about an isosceles triangle. Three granite monoliths stand 2.4-metre tall on the vertexes of the triangle, each in a different country. Closed metal tubes were placed inside them containing various commemorative objects, such as documents, newspapers and coins. The promotion of a new tourist product has added to this cross-border region’s tourist offer.

In 2004, the Tripoint Development Programme started as a grassroots initiative. It consists of local authorities, unions of communities and associations from the three countries. In Poland these are the gmina Istebna, the Poviát of Cieszyn and the “Olza” Association for Regional Development and Cooperation, in Slovakia this is the so-called Kysucki Triangle (*Kysucký triangel*; obec Čierne, obec Skalité and obec Svrčinovec), while the Czech partner is the Union of Jablunkov Communities SOJ Jablunkov (obec Hrčava and obec Bukovec).

The established cooperation brings about tangible effects. The basic road infrastructure was built in the course of the Programme INTERREG IIIA Poland–Slovak Republic 2004–2006 and the Micro-Project Fund POWT 2007–2013 Czech Republic–Republic of Poland (with the agency of the Śląsk Cieszyński–Těšínské Slezsko Euro-region). Projects focusing on communication infrastructure are implemented as part of the Tripoint Development Programme. These include upgrading of local roads such as the Polana–Korbasy–Łupienie roads to the Jaworzynka–Hrčava tourist border crossing and the Jaworzynka Duraje–Czadeczka roads to the Jaworzynka–Čierne tourist border crossing. Also the missing section of the road connecting Poland and Slovakia (Jaworzynka Czadeczka – the stare border) was completed and the Jaworzynka

Krzyżowa–Jaworzynka powiat road Trzycatek was upgraded. Apart from that, a number of complementary projects are being implemented in the corresponding areas of the neighbouring countries. In the Czech Republic these include the upgrade of the Hřčava–Bukovec road to the Jaworzynka–Hřčava tourist border crossing and the upgrade of the Hřčava–Čierne road. On the Slovakian side the Hřčava–Čierne and the Čierne–Jaworzynka Czadeczka roads are being upgraded. The construction of the missing section of the road connecting Slovakia and Poland (Čierne–Jaworzynka Czadeczka) is also important.

In addition, investments are being implemented in tourist infrastructure. These include footpaths, Nordic walking routes, cycle tracks, tracks for the disabled, a roofed shelter, a wooden bridge over a brook etc. As a joint promotional element one map in English, Czech and Polish was published (as opposed to the previous three different maps of the Polish-Czech-Slovakian borderland). This also contains descriptions of attractions, tracks and events.

The Tripoint area is also notable for its biking tracks of various levels of difficulty. The easier, typically trekking tracks include the one called “Meeting point of three borders”, which is 25 km long. Another one, 40 km long, is much more difficult. It is called “Around the Tripoint in the wake of Gary Fisher”. It is an MTB version, i.e. a variant for demanding cyclists who apart from the aesthetic experience (connected with admiring the beautiful landscapes of the Tripoint region) also seek the adrenaline, which is secreted while riding a mountain bike.

The Tripoint area is promoted in an original way, with tourists encouraged to visit three countries at the same time: “Why don’t you go on a trip through the three countries, taste Czech, Polish and Slovakian beer, keep three currencies in your wallet and experience three languages with highlanders’ dialects woven in”. The Tripoint is also widely promoted on an international scale. An example of this trend is the workshop co-organised by the Regional Office of Silesian Voivodeship in Brussels focusing on macro-regional cooperation. The successful Polish, Czech and Slovakian cooperation in the Tripoint was presented there as a model.

Information about the Tripoint is available on three websites: **www.trojstyk.pl**, **www.trojmezi.eu** and **www.trojmedzie.sk**.

5.

SUMMARY

As mentioned at the beginning, this book has mainly practical aspects. It presents ideas concerning the development of tourism, transport and their mutual interactions. It also complements the second publication on the topic, which presents the results of detailed analyses: *The Polish-Slovak Borderland – Accessibility and Tourism*. As mentioned above, accessibility has an important impact on tourism development. The book proves that it is a factor that to a large extent determines tourism diversity and competitiveness. Taking advantage of the knowledge on existing accessibility (at different spatial scales and by the different modes of transport) should be an impulse for further planning of tourism development and thus also the social and economic development of the regions concerned. Using this knowledge in a competent manner may prevent wrong decision-making and help the stakeholders to choose the best solutions possible. Naturally, the study presented in this book does not represent the complete knowledge on the topic, and nor does it provide ready-made solutions. It must be stressed that the results to be used in the framework of the different solutions require additional interpretations and even extra research.

To sum up, actions in the transport sector support the development of cross-border tourist regions (such as the Polish-Slovak borderland). The actions include:

- Managing external access to the region as a whole and its main tourist spots (including a branch-like transport system serving the region), which determines the volume of foreign tourism streams and long-distance domestic traffic.
- Modelling the profile of individual tourist centres in the context of managing short- and long-term tourism.
- Relieving congested road routes (bottlenecks) to remove barriers to tourism development.
- Stimulating tourism concentration and dispersion within specific areas (e.g. with the aim of reducing increased pressure of tourism on the natural environment).
- Improving the quality of road infrastructure (including traffic safety) and public transport, which may contribute to overcoming the actual and mental (perceptual) barriers to generating new tourist flows.
- Creating new transportation-related tourist attractions (particularly railway ones).

BIBLIOGRAPHY

- Ciechański A. 2012, *Rozwój i regres sieci kolei przemysłowych w Polsce (1881–2010) w świetle materiałów archiwalnych* (typescript), IGiPZ PAN, Warszawa.
- EU transport in figures. Statistical Pocketbook, 2011*, European Commission.
- Kistowski M., Śleszyński P., 2010, *Presja turystyczna na tle walorów krajobrazowych Polski*, [in:] Plit J. (ed.), *Krajobraz a turystyka*, Prace Komisji Krajobrazu Kulturowego PTG, 14, s. 34–48.
- Višegrádsky most*, 2003, Denník Korzár, 8.9.2003.
- Krajčovič I., 2000, *Vráti sa ALWEG?*, <http://rail.sk/arp/slovakia/alweg01.htm>.
- Kubáček J., 1999, *Dejiny železníc na území Slovenska*, Železnice SR, Bratislava, 461 s.
- Porter M., 1998, *On Competition*, Harvard Business School Press, Boston.
- Rygiel Z., 2011, *Z dziejów bieszczadzkich kolejek leśnych*, Wydawnictwo Ruthenus, Krosno.
- Premiér otvoril hraničný priechod Palota – Radoszyce*, 2003, Tlačová agentúra SITA, 22.11.2003.
- Tourism Statistics in the European Statistical System – 2008 data*, 2010, Eurostat, Methodologies and Working papers.
- Tůma J., 2000, *Proč Alweg v Tatrách nejedí?*, <http://rail.sk/arp/slovakia/alweg03.htm>.
- Więckowski M., 2010, *Turystyka na obszarach przygranicznych Polski*, Prace Geograficzne nr 224, IGiPZ PAN, Warszawa.

Documents:

- Koncepcja Przestrzennego Zagospodarowania Kraju 2030*, 2011.
- Nový projekt výstavby diaľnic a rýchlostných ciest a jeho neskoršie aktualizácie a doplnky*, 2000.
- Uznesenie vlády ČR č. 741/1999 k rozvoju dopravných sietí*, 1999.
- Zákon č. 91/2010 Z. z. o podpore cestovného ruchu*, 2010.

Websites:

- <http://kolejka.bieszczady.pl>
<http://rail.sk>
<http://www.ndsas.sk>
<http://www.trojmedzie.sk>



ISBN 978-83-61590-80-4