CENTRE FOR REGIONAL STUDIES
OF HUNGARIAN ACADEMY OF SCIENCES

DISCUSSION PAPERS
Special

Visions and Strategies
in the Carpathian Area
(VASICA)

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Series editor
Zoltán Gál

Pécs
2008
ISSN 0238–2008
ISBN 978 963 9899 00 01

2008 by Centre for Regional Studies of the Hungarian Academy of Sciences
Technical editor: Ilona Csapó
Printed in Hungary by Sümegi Nyomdaipari, Kereskedelmi és Szolgáltató Ltd., Pécs
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1 Introduction

This document was prepared in the framework of the Carpathian Project. The Carpathian Project, again, is one of the projects approved and prepared in the framework of the CADSES (Central European, Adriatic, Danubian and Southeast European Space) trans-national spatial planning cooperation programme.

VASICA is accordingly a trans-national spatial-planning document. Similar synthetic documents have been prepared for several large cooperation areas in the last decade. The formerly prepared strategies developed a “standard” form and content of such documents. The first and best known of these documents was the “Visions and Strategies around the Baltic Sea, (VASAB)”, prepared in 1994. The idea of the title of the VASICA document was “borrowed” from these former trans-national spatial-planning documents. Nevertheless, VASICA is special and different from other similar documents, first because the Carpathian area is substantially different from other areas, second, because many years had passed since 1994.

The Carpathian Project had to face a pioneering task. A lot of planning documents were prepared for the individual national economies. There are also cross-country studies and strategic papers, dealing with some specific problems (macro-economy, environment, agriculture and so on). Due to the Carpathian Convention (see later), now the environmental and natural conservation problems of the Carpathian Mountains are better elaborated. Nevertheless, no common spatial planning document, plan or strategy was prepared so far on the complex economic, social and spatial problems of the Carpathian area as a whole. There are many reasons for that failure. Since 1918, the region was characterised by small state conflicts and rivalries. Even if there were sometimes efforts for coordination and common efforts, great power influence and disinterest brought about their failure.

In the last decade, several Europe-wide spatial documents had been prepared. Among them are the Leipzig Principles of EU member states (1994), the European Spatial Development Perspective (ESDP, 1999), the Guiding Principles for the Sustainable Spatial Development of the European Continent (2000), the Community Strategic Guidelines 2007–2013 (2006), and more recently the Territorial Agenda of the European Union and the Territorial State and Perspectives of the European Union (both May 2007). Furthermore, there are guidelines for specific European policies, like transport, tourism, water economy, management of cultural and natural heritage, environment, and so on. The principles, guidelines and proposals contained in these documents are fully accepted and followed in the VASICA document. Nevertheless, these European documents do not fully cover the specific spatial development problems of the new member states generally, and those of the Carpathian regions specifically. On the one hand, a part of these documents were prepared before the accession of the Central European countries,
consequently their specific problems were not dealt with. On the other hand, the problems of Carpathian countries and regions were not sufficiently emphasised and dealt with even by the more recent documents, because they are too specific to include them in a Europe-wide document. Such problems as the territorial impacts of mass re-privatisation and de-collectivisation, of neglected city centres, mass poverty and minority problems are unique to the Carpathian and Southeast European countries and could not be fully covered in the All-European documents.

Therefore it has been decided, not to repeat the All-European general strategic principles of sustainable spatial development, however correct and important should they be also for the Carpathian area. The document is dealing first of all with the specific problems of the Carpathian countries and above all with those of the mountainous areas of the region. It means that in order to implement a successful spatial planning and policy in the Carpathian area, one should keep in mind not only specific proposals and recommendations (contained in VASICA), but the general principles and guidelines contained in European documents as well. None of them is sufficient alone.

The Carpathian Convention (Framework Convention on the Protection and Sustainable Development of the Carpathians), which was adopted and signed by all seven Carpathian countries in Kyiv, in May 2003, was of special importance for drafting the VASICA document. The provisions of the Convention, necessarily, have reference to spatial planning, agriculture, forestry, industry, energy, tourism and cultural heritage as well. It is, at present, the only transnational document, adopted and signed by the respective governments and referring to the whole of the Carpathian area. Therefore, its significance cannot be exaggerated.

The function of the VASICA document is different:

− It is not a document requiring high level official approval;
− It is not a comprehensive long term plan or programme for the Carpathian area;
− It is not the all comprising document of the Carpathian project (though many contributions by other project partners are considered, some of them even included into the document) VASICA is only one of the only deliverable documents, prepared in the framework of the Carpathian Project, but it plays undoubtedly a specific role among the deliverables;
− It is a conceptual document based on a social-economic analysis, which is exploring some development opportunities in the Carpathian area and sets some priorities for development actions
− It is focusing on those problems and tasks which are specific to the Carpathian area.

There are different levels of Carpathian area addressed in the document. The first one is the proper mountain area with minimum elevation of 600 m and mini-
mum slope of 20°. The second one is the fore-land, or the foot of the mountains which are in direct connection to the mountainous area, and where a large part of the services, serving the mountain population are located. The third level is the wider region, including the NUTS3 (in Ukraine NUTS2) level administrative units to which the mountainous areas belong. Most of the statistical data and analyses refer to these latter units. This is a rather large area of 446 km² and 53–54 million inhabitants. Its role in the document is justified by several reasons. The first one is that a substantial part of necessary data is available only for this level of territorial units. The second one is that if recommendations and proposals are to be implemented, the responsible authorities, who can implement them, are acting on these levels. Finally, the third one is that the economic, social, transport, educational and even environmental problems of mountain areas can be solved only in this wider spatial context.


During the preparation of VASICA the GIS databases and appropriate technologies were used to provide VASICA with maps and other cartographical materials, which were published on the Carpathian Geoportal¹. Interactive maps of development issues for the entire Carpathian transnational region (at a scale of 1:2,000,000) have been prepared jointly for the whole area. The document takes into account the joint development potentials for cross border areas.

At present, most of the Carpathian countries are reaping the first benefits of their accession to the EU. In this way, there is an opportunity for faster technical and socio-economic stabilisation and better development potentials for the transnational region. This must bring about a change in goals and strategies for development, which change would shift the transnational region from the role of a peripheral area to a much more engaged one. The benefits of this changed strategy should help in particular the decision-making processes of national and regional administrations. VASICA should help coordinate actions, especially those regarding cross-border areas. Benefits are also expected in the form of intensified international cooperation at multilateral and bilateral levels.

¹ www.carpathianproject.eu
2 The Carpathian region in the European space

The Carpathian Mountains are the Eastern wing of the Great Central Mountain System of Europe, curving on the territory of eight Central and Eastern European countries (Austria, Czech Republic, Slovakia, Hungary, Poland, Ukraine, Romania and Serbia). The Carpathians begin on the Danube near Bratislava. They surround Transcarpathia and Transylvania in a large semicircle, sweeping towards the southwest, and end on the southern bank of the Danube near the Iron Gate, in Serbia. The total length of the Carpathians is over 1500 km, and the width of the mountain chain varies between 12 km and 500 km. The greatest width of the Carpathians corresponds with their highest altitudes. The system attains its greatest breadth in the Transylvanian plateau and in the meridian of the Tatra group (the highest range with Gerlachovský štít, at 2655 m in Slovak territory near the Polish border). It covers an area of 190,000 km², and, after the Alps, it is the most extensive mountain system in Europe.

Although commonly referred to as a mountain change, the Carpathians do not actually form an uninterrupted chain of mountains. Rather, they consist of several orographically and geologically distinctive groups, presenting as great a structural variety as the Alps. The Carpathians, which only at a few places attain an altitude of over 2500 m, mostly lack bold peaks, extensive snow-fields, large glaciers, high waterfalls, and numerous large lakes that are common in the Alps. No area of the Carpathian range is covered with snow year-round, and there are no glaciers. The Carpathian at their highest altitude are only as high as the Middle Region of the Alps, with which they share a common appearance, climate and flora.

The Alps and Carpathians share many – mostly economically disadvantageous geographic and natural features:

− Both spaces as mountainous areas are less favoured for agricultural production.
− Both are geologically younger mountain ranges and therefore poorer in mineral wealth (in this respect, the endowment of the Carpathians is even somewhat better).
− Both are difficult to cross and hard to access.
− Both were peripheral areas in their respective countries, large sections of the mountain ranges constituted borders between countries and were far from the large urban centres.

Consequently, they shared – at least until the middle of the 19th century – the phenomena of poverty, agricultural overpopulation and large-scale emigration, characterising all mountainous areas of Europe at that time.

After the middle of the 19th century, however, development trends bifurcated radically:
The Alpine space could live up with its few advantages: central situation in Europe, beautiful scenery, healthy conditions, tourism and winter sport opportunities and highly skilled craftsmanship.

Most of the Carpathian regions could not live up with these opportunities or could not exploit them fully. Even the better endowment with mineral wealth became today a disadvantage in some areas, through the emergence of industrial crisis areas and brown-field problems.

Today the Alpine regions are the most advanced and richest regions within rich countries (with a few exceptions).

Today the Carpathian regions are mostly the poorest regions within poor countries (with some exceptions).

Obviously, diverging development trends are characteristic for the whole area of Western and Eastern Europe, but in respect to the Alps and the Carpathians this divergence is even more stressed than elsewhere.

Now, the main objective in the Carpathian area is to reverse this diverging trend and to diminish the development gap between the two mountainous regions in the middle of Europe.

2.1 The delineated “Carpathian Region”

For the purposes of the analysis and strategy building in the Carpathian Region, a wider area has been delineated, as Carpathian programme area (Figure 1). This delineated area comprises much larger area (470 thousand km$^2$) than the area of the Carpathian Mountains (190 thousand km$^2$). It covers also the fore-lands of the mountain chain. Furthermore, it is delineated according to the administrative regions of the Carpathian area (NUTS2 regions in Austria, Poland and Ukraine, NUTS3 regions in the Czech Republic, Hungary, Romania and Serbia) in order to have a larger data base for analysis and to enable the participation of regional governments with their whole administrative area in the project. According to this delineation, the whole territory of Slovakia is regarded as part of the Carpathian region (Table 1).

This larger area has a population of nearly 53 million, which is comparable to the population size of Britain, France and Italy in Europe. It is about 7.6% of the European population, and somewhat less than 5% of the European territory.

The breakdown of the Carpathian Region according to countries is the following.
Table 1

*Main indicators of the Carpathian area (2004)*

<table>
<thead>
<tr>
<th>Country</th>
<th>Carpathian area km²</th>
<th>Carpathian population thousands</th>
<th>As a percentage of the country’s area</th>
<th>As a percentage of the country’s population</th>
<th>As a percentage of the Carpathian area</th>
<th>As a percentage of the Carpathian population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>23,558</td>
<td>3,373</td>
<td>28.1</td>
<td>41.6</td>
<td>5.3</td>
<td>6.3</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>21,723</td>
<td>3,632</td>
<td>27.5</td>
<td>35.6</td>
<td>4.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Hungary</td>
<td>54,322</td>
<td>7,286</td>
<td>58.3</td>
<td>72.9</td>
<td>12.2</td>
<td>13.6</td>
</tr>
<tr>
<td>Poland</td>
<td>45,514</td>
<td>10,138</td>
<td>14.6</td>
<td>26.3</td>
<td>10.2</td>
<td>18.9</td>
</tr>
<tr>
<td>Romania</td>
<td>165,013</td>
<td>13,920</td>
<td>69.5</td>
<td>62.1</td>
<td>36.9</td>
<td>26.0</td>
</tr>
<tr>
<td>Serbia</td>
<td>31,567</td>
<td>3,568</td>
<td>35.7</td>
<td>35.2</td>
<td>7.1</td>
<td>6.7</td>
</tr>
<tr>
<td>Slovakia</td>
<td>49,034</td>
<td>5,379</td>
<td>100.0</td>
<td>100.0</td>
<td>11.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Ukraine</td>
<td>55,895</td>
<td>6,217</td>
<td>9.3</td>
<td>12.8</td>
<td>12.5</td>
<td>11.6</td>
</tr>
<tr>
<td>Total</td>
<td>446,626</td>
<td>53,513</td>
<td>28.4</td>
<td>34.9</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*Source:* National statistical yearbooks.

Figure 1

*Map of the Carpathian Development Region*

*Source:* Author’s construction.
3  A brief review of the situation and problems: the SWOT analysis of the Carpathian Area

The Carpathian region is a European Region, stretching over the area of 8 European countries (Austria, Czech Republic, Hungary, Poland, Romania, Serbia, Slovakia and Ukraine). Its total area and population is comparable to that of the Alps. Nevertheless, so far much less attention was paid – in European context – to this area than to the Alps. From the 1st of January 2007, 6 Carpathian countries out of the 8 will be members of the European Union. But even the other two – Ukraine and Serbia – are of key importance for European security and development. One of the most important aims of the Carpathian project is to call the attention of European decision-makers to this unique European region, to its strengths and weaknesses, to its development opportunities and to the threats of non-action in this area.

3.1 The SWOT analysis

What follows below, is a sketchy SWOT analysis of the Carpathian area. One of the tasks of the actions of the project is to elaborate on the specifics and details of the particular items of the SWOT analysis.

1) The strengths of the Carpathian area

− There are several places in the Carpathians having well equipped and relatively easily accessible recreation and winter sport facilities. The most important of them are Zakopane (PL), Tatranská Lomnica, Starý Smokovec, Štrbské Pleso (SK), Sinaia, Azuga, Predeal (RO);
− The Carpathians are rich in medicinal mineral water sources and spas. Major spas are Krynica in Poland, Piešťany, and Teplice in Slovakia, Borsec, Sovata, Bâile Tușnad, Covasna, and Bâile Hercolane in Romania.
− The Carpathian Mountains are stretching over the area of 8 European countries (the largest number in the World) and it is situated in a politically, economically, environmentally and from the point of European security important place in the middle of Europe. Even its situation calls for more attention and for more effort to deal with its problems.
− The Carpathian area is one of the regions of Europe, where old rural architecture and different rural arts and crafts have been best preserved. They can be one of the attractions of tourism. On the other hand, their products – if adequately organised and marketed – can be sold to a wider interested public.
The Carpathian area is rich in forests. It has special importance in Central Europe where a rather small share of surface area is forested (e.g. 60 percent of all the forested area of Ukraine is in the Carpathians). This could form the basis for a competitive wood-processing and furniture industry. Competitiveness could be enhanced by cooperation of enterprises in the different Carpathian countries and by coordination of their strategies.

The Carpathian area is rich in rivers, which are suitable for the generation of hydroelectric power. Regarding that most river basins are stretching over state borders, these developments require transnational coordination.

2) The weaknesses of the Carpathian area

Unfortunately, the weaknesses of the area are – at least at present – more numerous than its strengths.

From geological point of view the Carpathian area is – like the Alps – a geologically youthful mountain range. Youthful ranges are less suitable for larger settlements and are poorer in mineral wealth. Some oil and other resources were found rather at the foot of the mountains, where plains and mountainous areas meet. While ancient mountain areas are often attracting population and economy, youthful ranges have in many cases a “repulsing” effect. The Carpathian area belongs to the less developed areas, even in Central European context. Mountain areas are less suitable for agriculture; arable areas cannot reach to areas higher than 600-700 metres.

Despite of being lower than the Alps, and mainly for historical, and economic reasons, the Carpathian range is less passable than the Alps. The mountain range is 1450 km long and there are only 12 railway lines crossing the mountain range (5 of which are on the Czech–Slovak border). There is no motorway crossing the Carpathians. Because of the poor accessibility, tourism is also at low level, the tourism potential of the area cannot be exploited.

Agricultural endowments of the area are poor. Despite of these unfavourable conditions, agricultural population density was relatively high, surpassing the carrying capacity of the area. The result was poverty and high emigration from the area in the last hundred – hundred fifty years. The Carpathian area was one of the regions with the highest emigration in Europe in this period. But agricultural overpopulation caused also other unfavourable developments in the area. The area, suitable for efficient and large scale plant production is small; steep slopes are more exposed to erosion and many areas are already eroded.

The situation of the area is peripheral. Markets and large urban centres are far and their access is costly and difficult. There are no significant mineral resources.
A large part of the Carpathian region is border area where crossing the borders is difficult and time consuming both from technical and administrative point of view. These types of borders are serious hindrances of economic cooperation and integration. For centuries, the large part of the Carpathians was peripheral and neglected border area. One part of it (between Slovakia and Poland) is still a border zone. The other parts are now inside the countries of Ukraine and Romania, but the new situation caused other problems. In Ukraine, Transcarpathia the area, isolated by the mountain range from the other parts of the country, became even more peripheral than before. In Romania, the country is divided into two parts by the Carpathians and the mountain range remained in some sense – an obstacle of full national integration.

During the last century, state borders in the area changed many times, in some areas even the ethnic composition of the population changed substantially. In the former Soviet Union border areas were deliberately not developed and not industrialised. Political factors were among the causes of economic underdevelopment. Political conditions were also unfavourable in the area. The promotion of the development of the Carpathian area was not enhanced by the circumstance as in most countries it was not inhabited by the titular nation, but by ethnic minorities. In the pre-World War I Hungary Carpathians were inhabited by Slovaks, Rusyns and Romanians. In post-World War I Poland and Czechoslovakia a large part of the Carpathians was inhabited by Ukrainians and Rusyns, in Romania some parts by Hungarians.

The consequences of the communist-type economic system still can be felt, up to the present day. Smaller and medium size cities at the foot of the mountain range have lost their important market function as places of exchange and processing of products from the mountains and from the plain. Small and medium size enterprises are missing. Many small and medium size cities are “one-factory” towns economically depending fully on one single industrial plant in the town.

Nearly forty years of communist centrally planned economy caused substantial damage to the Carpathian area. The system of central planning did not consider the specificities of the mountainous areas, they applied uniform methods by setting planning targets as in other parts of the respective countries. Serious deforestation took place in Ukraine and Romania in this period. Collective farms were organised in areas, where conditions are unfavourable for large scale farming. In some mountainous areas in Romania, collectivising was not carried out, but agriculture in these areas did not enjoy any state supports. Industrialisation was implemented in the Slovak Carpathians and in some parts of the Romanian Carpathians (Brasov), but a large part of it represented arms industries. The mountainous areas could offer opportunities for
tourism, but tourism was not a preferred sector in the socialist economy. International tourism was rather restricted in some countries hermetically isolated from the outside world.

3) **Opportunities of the Carpathian area**

- The Carpathian area is one of the very few regions in Central and Eastern Europe where the number of population is still growing. It is a huge reservoir of educated, skilled (cheap) and relatively young European labour force.
- The area has a huge potential for tourism. Winter sports facilities are confined to a small number of places, mainly in the Western Carpathians (Zakopane PL, Poprad SK). There are much more suitable places for winter sports. There are huge hardly touched areas of natural beauty. There are large national parks with relatively few visitors.
- One of the important opportunities is the revival of the medium size cities along the “market line” at the internal and external edges of the Carpathian mountain range. These towns were the centres of the exchange of products from the mountains and from the plains. The decline of this function in the past decades was partly due to the communist economic system, but also to the holocaust (a large part of the merchant class of these cities was of Jewish origin). Many of these cities are now in a critical situation because some of the industries located there during the centrally planned economy are declining. Trade, processing and marketing of the products of the mountain areas (like mountain foods) could constitute an important part of the economic base of these towns.

4) **Threats in the Carpathian area**

- Rural population pressure and shortage of agricultural land area together imply the threat of deforestation, of overgrazing, of inadequate use of mountain slopes for agricultural purposes. These practices are increasing the hazard of flood, landslide and land degradation.
- Climate change, without preventive measures, could also cause the growing threat of floods and the radical decrease of winter sport opportunities.
- A certain level of migration from the Carpathian area is unavoidable and may have even some beneficial impacts on the economic and social situation (lower rural population pressure, income transfers, etc.). In the absence of economic development and improving accessibility, however, emigration can take excessive dimensions, spoiling even the future possibilities of economic development.
- Huge economic, social and security gaps along the external borders of the EU could give rise to different semi-legal or illegal activities on the two sides of
the border: Illegal employment, smuggling of people and commodities, huge
price difference in the provision of services, cross-border service provision,
environmental dumping and export of waste materials, etc can cause in-
creasing tensions in the border area which hampers integration.

- Even now, in some border areas a fairly large part of the population makes its
  living from small-scale illegal or semi legal activities (smuggling of fuel and
  other commodities, unregistered employment). Prosperous settlements are
  only those where this activity takes larger dimensions. The earned money is
  invested not in productive activities but in the construction of huge apartment
  houses, which is a form of money laundering. All these developments give
  rise to adverse income distribution, based not on work but on illegal activi-
  ties.

- In the Carpathian area – especially at the edges of the North Eastern and
  Eastern Carpathians – lives a large part of the European Roma population.
The living conditions of a large part of this population have deteriorated in
the last one and half decade. Social tensions, caused by these developments
are already substantial. If no, or only insufficient measures will be taken to
change this situation, then serious conflicts could emerge in this area.

- Besides the Roma population there are other ethnic minorities in the area.
  Their status has improved in the last decade, but it cannot be regarded as sta-
  ble. Nationalist parties can any time come to power in any country of the re-
  gion (because there exist such parties in all Carpathian countries) and such
  events can generate serious tensions in the region.

- The Carpathian region is now the Eastern external border area of the Euro-
  pean Union. The future of the enlargement process of the European Union is
  still uncertain. But whatever policy will be pursued concerning enlargement,
  the securing of political stability requires to cooperate with neighbouring
countries and to help them to stabilise their economy and to improve the liv-
  ing conditions of their population.

The aim of the Carpathian VISION document (VASICA: Visions and Strategies
in the Carpathian Area) should be utilising and enhancing the strengths of the area,
to reduce its weaknesses, to exploit its opportunities and – as far as it is possible –
to avoid and prevent its threats.
4 Strategic objectives in the Carpathian region

Considering the listed strengths, weaknesses, opportunities and threats, four strategic objectives could be defined for the Carpathian area as a whole.

1) Strengthening the internal cohesion of the Carpathian region
2) Strengthening the cohesion with the other parts of the European territory
3) Enhancing economic growth and job creation in the Carpathian area
4) Improved management of the region’s environment and natural-cultural heritage.

4.1 Strengthening the internal cohesion of the Carpathian area

It is a general observation that the internal cohesion of the Carpathian for the time being is weak. This weak cohesion has natural-geographic, technical-infrastructural, historical, political and ethnical-linguistic reasons:

- The Carpathian mountain range divides the region into two halves: areas inside of the Carpathian basin, and the areas outside of it. The two were divided by a 150 km wide hardly passable mountain range, which was uninhabited or hardly inhabited for centuries. The mountain range was a natural defence system for the nations and regions on both sides, but simultaneously it separated them from each other and substantially restricted the interactions.
- The Alps were even less passable, nevertheless, the North-South routes were vital for the economic and cultural development of Western Europe, and therefore serious efforts were made to construct roads and railway lines across the Alps. In contrast, in Central Europe, North-South connection was not a priority issue. Consequently, the number of trans-Carpathian roads and railways is insufficient and the capacity of the existing ones is limited.
- Historically, the Carpathian region, as a whole was the “border area” of big empires: of the Ottoman, the Russian (Soviet), the German and the Austrian-Habsburg empires. The joining of forces and solidarity was very rarely the political strategy of the smaller nations in this “border area”. They looked more frequently for the support of one or more of the great powers to attain their political and military objectives. Conflict was more characteristic of inter-nation and inter-ethnic relations than collaboration.
- Sustaining hostility among the small nations was the tactics of the great powers as well for a longer period. But it was misused also by some communist leaders to divert people’s attention away from the worsening economic situation in their countries.
8 languages are spoken in the Carpathian region. Mutual understanding is somewhat less a problem in the case of the 5 Slavic languages (Czech, Polish, Serb, Slovak, Ukrainian), much more difficult with the other 3 languages (German, Hungarian, Romanian). Latin was the “Lingua Franca” until the 18th century. This role was partly taken over by the German language in the 19th century. Unfortunately, Russian was taught, but not learned in the schools of the Carpathian area for almost a half century. As a consequence, there are whole generations in the Carpathian countries, who can hardly communicate with each other.

At the same time, there are some favourable preconditions for more cohesion:

− Carpathian countries and regions share – though in different languages – a common “Central European” culture. With the exception of some Eastern and Southern Romanian regions, all Carpathian regions were part of the Habsburg empire for at least 150 years, some regions for a much longer period. This empire – besides its serious problems – represented a peculiar milieu and way of life which left their marks in every Carpathian country. But even the life under Soviet hegemony was a common experience. A strange consequence of the restrictions of travelling to the West was that people got more acquainted with neighbouring countries. The common fate and the simultaneous efforts to change the political-economic system created a kind of solidarity between the nations;

− Though the Carpathian Mountains are the geographic “asset” bounding the countries and regions together, their geographic endowments are much differentiated, which would offer huge opportunities to exchange their products in the framework of international trade. Nevertheless, from the collapse of the Habsburg Empire until the EU accession, Carpathian countries seriously – though with changing instruments – discriminated each other in their foreign trade relations. It was true not only concerning the tariff-wars between the two World Wars, but also for the COMECON trade and partly even for the CEFTA co-operation. Only the EU accession abolished all the obstacles of economic division of labour between Carpathian countries and regions, and since 2004, economic relations and trade developed very rapidly.

− Finally, common intervention might be useful even as members of the EU and in EU forums. Carpathian regions are among the least developed regions of the EU and the common presentation of their problems would give more emphasis to their claims.

The actions for achieving more internal cohesion in the Carpathian region would be the following:
– development and improvement of transport and communication networks across and within the Carpathians;
– supporting partnership and cooperation agreements between Carpathian countries, regions and cities;
– supporting the creation of Euroregions and converting them to regions of genuine common projects and efforts;
– enlarging the Schengen zone with Romania as soon as possible
– facilitating border crossing also for citizens from non-EU Carpathian regions
– establishing cross-border passenger transport networks between the neighbouring parts of the Carpathian countries to strengthen micro-regional linkages, to promote tourism and facilitate commuting.
– formulating more joint cross-border projects for improving infrastructural systems
– enhancing exchanges of pupils and students and supporting language courses on the languages of the neighbours.
– Supporting mutual visits of theatres, ensembles, actors and artists in the Carpathian regions.

4.2 Strengthening the cohesion with other parts of the European territory

Beyond the strengthening internal cohesion, the Carpathian region is part of the wider European territory. The European integration process means that for the first time in the European history, this area is an equal member of the European community. It means that the more fortunate part of Europe supports the adaptation and development of the Carpathian countries, but Carpathian countries also have to contribute to the All-European stability and development. The main challenges and tasks of the Carpathian regions in this respect are the following:

– One of the most important tasks is to catch up with the more developed countries of the European Union. For the Carpathian regions, the principal model is the Alpine area. But this catching up process is important for the whole of Europe. In the recent years, the growth rate of some Carpathian regions (mainly in Slovakia) was substantially higher than the EU average, so they positively contributed to the implementation of Lisbon objectives, to the economic dynamics of the EU.
– The catching up process does not mean that the Carpathian region should be in every respect similar to the Western European models (e.g. to the Alpine regions). Central Europe and within it the Carpathian region has its own characteristics, peculiarities which are worth to preserve them. Such things are the special Carpathian foods and drinks, special culture, folklore, crafts,
city and village structures, specialities of the transport system, land use peculiarities, agricultural practices, and so on. By preserving its peculiarities, the Carpathian region can contribute to the diversity of the European space.

The border and bridge function: the Carpathian region is now the most important part of the EU external border. The EU has now 6631 kilometres external land borders, and 1884 kilometres, more than one fourth of it can be found within the Carpathian region. These are the borders of EU member states to Ukraine and Serbia. These borders, however, are more important than their quantitative share. Ukraine is the largest state in the whole area, and the Ukrainian Carpathians are of key importance for Ukraine and for the whole mountain range as well. It represents 70 percent of the whole Ukrainian wood production and a substantial part of the Carpathian wood production as well. Several important rivers of the Carpathian area take their sources in the Ukrainian Carpathians (San, Bug, Tisa, Prut, Latorica, Uzh). But beyond the economic and hydrological importance, the Ukrainian and Serbian Carpathian regions are of pivotal importance for the whole neighbourhood policy of the EU. These Carpathian regions are borders, but they are also bridges to the neighbouring countries. The stability and development of Ukraine and Serbia are important factors for the stability of the EU as well, and fruitful cross-border cooperation is an important guarantee of this stability.

In the framework of the EU structural, cohesion and agricultural policies, Carpathian countries and region enjoy significant support for their economies. Simultaneously, it is an important income transfer within the EU from the more affluent countries and regions to the poorer ones. But beneficiary countries and regions have the political, economic and moral obligation to utilise these transfers as fully and as efficiently as possible and to prepare for the period when – due to their dynamic development – they should ensure the conditions of their economic balance and development without the external income flows, as soon as possible.

The main actions to implement these objectives are the following:

- the strengthening of transport and communication links between the Carpathian region and the Pan-European transport and communication corridors;
- connecting the Carpathian region with the European waterways
- the inclusion of the mountain tourist tracks into the international structure of tourist tracks and area, and its active international promotion;
- integrated actions aimed at attracting new economic investment projects, especially in the field of new technologies;
- the development of information society on the basis of integrated systems of state-of-the-art telecommunication infrastructure.
4.3 Promoting economic growth and job creation in the Carpathian area

Obviously, that is the main objective in the Carpathian area. It has been ranked as third in the list only because its instruments and measures are of more general character, not unique to the Carpathian space.

Nevertheless, there are specific “Carpathian” features even of the “growth and jobs” policy in this region. The most important is the low activity rate. In the Carpathian region 50–51 percent of the population between 15 and 64 years is working, while in EU average, this figure is 64 percent, in some regions more than 70 percent. It means that even if productivity would be equal to EU average (what is unfortunately not the case), the GDP per head would be 22 percent lower. The first and most important task is, therefore, to create jobs for a larger part of the population. According to experience, large multinational firms contribute substantially to GDP and exports, but their impact on employment is rather restricted. It means that these additional jobs must be created by small and medium enterprises. Their support is therefore vital for the whole Carpathian economy (Table 2).

Table 2

<table>
<thead>
<tr>
<th>NUTS code</th>
<th>Name of the region</th>
<th>Activity rate of 15–64 population (2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL22</td>
<td>Śląskie</td>
<td>49.5</td>
</tr>
<tr>
<td>HU31</td>
<td>Észak-Magyarország (north Hungary)</td>
<td>49.5</td>
</tr>
<tr>
<td>HU32</td>
<td>Észak-Alföld (North Plain)</td>
<td>50.2</td>
</tr>
<tr>
<td>SK04</td>
<td>Východné Slovensko</td>
<td>51.5</td>
</tr>
<tr>
<td>PL33</td>
<td>Świętokrzyskie</td>
<td>51.6</td>
</tr>
<tr>
<td>PL32</td>
<td>Podkarpackie</td>
<td>52.3</td>
</tr>
<tr>
<td>HU33</td>
<td>Dél-Alföld (South Plain)</td>
<td>53.8</td>
</tr>
<tr>
<td>RO12</td>
<td>Centrum</td>
<td>54.1</td>
</tr>
<tr>
<td>RO22</td>
<td>Sud-Est</td>
<td>54.6</td>
</tr>
<tr>
<td>PL21</td>
<td>Małopolskie</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Source: Eurostat.

But even this low employment means over-employment in some Carpathian areas. The GDP per head indicator is the lowest in the Romanian Nord East region (23.6 percent of the EU average), but productivity is even lower: GDP per employed person is 11.6 percent of the EU average. The reason is that half of the working force is employed in agriculture with very low efficiency. 50 percent agricultural employment is hardly else than latent unemployment.
Inactivity and latent agricultural unemployment together means that in the next years 6-7 million jobs should be created in the Carpathian area only to achieve the present average EU activity rate. The regions with the lowest activity rates are the following:

4.4 Improved management of the region’s environment and natural-cultural heritage

The Carpathian region is particularly rich in natural assets. However, the use of such resources, especially during the last 50 years, has in many cases upset the balance of nature, and now action is needed to restore it. A concern for the natural environment improves the quality of spaces, creating better conditions for life and for businesses. This can be one of the factors generating positive social change, e.g. reversing depopulation. The cultural heritage is also very rich. Its objects were accumulated during centuries, and they consist of contributions of several nations, ethnic and religious groups, some of which do not live in the area any more. Such mixture of cultures can generate substantial momentum of development, provided it is properly researched, managed and considered in development policies.

The natural environment of the Carpathian Region is the heritage of the entire European Community, and so its protection should be a priority task. However environmental and cultural assets can also form the basis for the development of certain types of economic activities (e.g. tourism). This is why protection and actions aimed at restoring the value of environmental and cultural assets can also be assessed in economic terms, and in the long run can be converted into quantifiable advantages.

The potential common actions can be the following:

− Common and coordinated care for cross-border natural parks and reserves;
− Implementation of European nature conservation programmes (like green belts);
− Protection of cross-border rivers against pollution and improvement of water quality in the catchment basins of rivers, crossing the borders;
− Coordination of actions regarding the use and protection of hydro-geological structures which cross the borders, including the restoration of hydro-geological balance in areas with disrupted water systems. Protection of areas both with underground and with cavern water;
− Cooperation in preparing environmental and strategic impact assessments for cross border areas;
− Integrated monitoring of air quality;
− Sustainable management of forests in the border areas and increasing the woodland cover;
− Preparation of studies, assessing the capacity to reclaim and redevelop industrial and degraded land, and preparation of joint reclamation and redevelopment projects;
− Strengthening and conservation of regional architectural traditions;
− Raising of social awareness and education for cultural and natural environmental protection;
− Revitalisation of cultural landscapes in rural areas;
− Promotion of the tourism to industrial heritage places;
− Organisational and technical efforts aimed at protecting cultural heritage.
5 Demography

The average density of population in the Carpathian region is 120/km². Behind this average, however, the differences are very large. In the proper mountains, where the economic carrying capacity is rather low, the density of population is 10–25/km². In the fore-lands of the mountains, it is rather high, over 150/km². It is especially high along the external “market line”, (a chain of cities), where it is more than 200/km². But the two areas, with different densities of population cannot be regarded separately. The economic base for a significant share of the population in the densely populated area is in the mountains (and in their products). On the other hand, the population in the mountains would be even smaller without the demand of the population in the fore-lands for their services and products.

The development of the size of the population is the result of birth and death rates and migratory movement of the population.

During the 20th century, birth rates in the Carpathian area were rather high, higher than in other areas of Central Europe. The reasons for it were different: rural way of life, deeper religiosity, but also lower educational level. However, in the last decades, birth rates decreased radically, more radically than the respective national averages. They are still higher, than in the surrounding plain areas, but the difference is much smaller than before.

The highest birth rates can be found in the proper mountainous areas in the Northeast Carpathians (in Romania, Poland, Slovakia and Ukraine). The lowest birth-rates are in Austria, Hungary and –interestingly – also in some parts of Poland and Slovakia.

The regions with the highest death rates are exclusively in Hungary and Romania – mostly in Hungary – and in the southern part of the Carpathian area. The regions with the lowest death rate are exclusively in Poland and Slovakia – mostly in Poland – and in the northern part of the Carpathian area. Low death rates are mostly due to the younger age structure of the population, due to the former higher birth rates.

It has to be noted that even the highest natural increase figures are rather low in international comparison. The dominant trend in the Carpathian area is natural decrease. Out of the 88 NUTS3 regions of the Carpathian area, only in 23 was natural increase registered, in the other 65 region natural population flow had a negative balance.

This natural population flow is modified by migration.

The regions with the highest out-migration figures are not the less developed agricultural counties, but the industrialised ones (Hunedoara, Sibiu, Brasov, Caras-Severin and Timis). It is partly the consequence of the collapse of industrial plants established in the socialist period. On the other hand, the skilled, more mobile
workers of these counties are those, who can find work in other regions, especially abroad.

In a longer historical perspective: the proper Carpathian area was – since the 19th century – one of the main sources of European emigration. The restricted economic carrying capacity of the mountainous areas and the high population growth resulted in very high emigration figures. The numbers of emigration statistics of Eastern Slovakia, Galicia, Szeklerland at the beginning of the 20th century were comparable with the respective figures of Britain and Ireland. A part of this emigration was of temporary character. Slovak workers, for example, worked for some years in the USA and then returned to their home country with their savings.

But anyway, because of these large emigration flows, the number of population did not increase at a rate, which could be supposed based on the high birth rates. In contrast: there are regions, where the population is less than a century ago. Besides voluntary migration, war, forced re-settlement and the holocaust also contributed to the slower growth or even decrease of population in some areas (for example in Galicia and in the Banat). In the last decade, hundred thousands, even millions of people – mainly from Romania and Poland – had left their home country, looking for employment and higher earnings in Western Europe.

Ethnic and religious affiliations

There are 8 countries in the Carpathian region, so the population is divided between different nations and ethnic groups. But even within the individual countries, the population is of multiethnic character. There are Hungarians and Ukrainians in Slovakia, Ukrainians and Germans in Poland, Romanians, Slovaks, Hungarians, Poles, Russians and Germans in Ukraine, Hungarians, Germans, Ukrainians and Serbs in Romania, Romanians, Germans, Slovaks and Serbs in Hungary, Romanians, Hungarians and Slovaks in Serbia, Croatians in Austria and Poles in the Czech Republic in the Carpathian area. Roma population is spread in the whole Carpathian region, their number in the whole Carpathian region is more than 2 million.

But even the Ukrainian population in the Carpathians is divided into different ethnic groups. There are Rusyns, Lemkos, Bojkos and Hutsuls, all living in the Carpathian Mountains. Mountain ranges divided and isolated them from each other, therefore they could develop their own dialects and ethnic identities. In South Poland, in the Carpathians live the Górale, whose language is based on Polish, but contains many words from the Slovak and Vlach languages. The Szeklers in the Eastern Carpathians speak Hungarian, but their origin is different from the other Hungarians. Another Hungarian group, the “Csángos”, lives in the Eastern side of the Carpathians, in Moldavia. Because of the long time of isolation, a substantial part of Csángos have lost already their Hungarian language and speak Ro-
The “Moți” in the Apuseni Mountains speak Romanian, and regard themselves Romanians, but supposedly they have also other origin than the other Romanians. Many Czech citizens in the Czech Carpathian region regard themselves as Moravians or Silesians. Summarising: there is a very colourful ethnic mosaic in the Carpathians.

The composition of the Carpathian population according to religious affiliation is also diversified. The majority of the Polish, Slovak, Czech, Austrian and Hungarian population is Roman Catholic. Nevertheless, among those Hungarians, who live in the Carpathian region, the majority is Protestant (Calvinist). A minority of the Slovaks and Germans in Southern Transylvania are Lutherans. A substantial minority of the Szeklers belongs to the Transylvanian Unitarian Church. The larger part of Romanians and Serbs are Eastern Orthodox Christians.

The Eastern Catholic Church (or the Greek Catholic Church) has a special significance in the Carpathian region, because its adherents in Europe live almost exclusively in the North-Eastern or Eastern Carpathian area. Ethnically, they are mostly Ukrainians and Romanians but there are also Slovaks and Hungarians. After Russia (and later the Soviet Union) annexed this area, the Greek Catholic Church was eliminated, and its adherents were regarded to be of Orthodox religion, who were formerly forced to leave the Orthodox Church. After 1990 the Greek Catholic Churches have been revived in these countries and now they are competing with the Orthodox Churches for the faithful people.

Before World War II, the Carpathian area was one of the most important settlement areas of Jewish people in Europe. Their number in the Carpathian area was more than 5 million. The Holocaust, emigration and natural decrease have radically reduced their presence in the area. They number now hardly 100 thousand in the area.

In the last decades – in all countries of the region, although to different extent – new Religious Movements and small Churches could attract an increasing number of people. The deterioration of living conditions, the collapse of earlier systems and ideals, and sometimes their charitable activities contribute to the growing number of adherents of new religious movements.
Agriculture and forestry is still among the most important economic sectors in the Carpathian region, though its share in GDP and employment is decreasing. Unfortunately, not only the share, but the absolute level of production is also decreasing. With the exception of Romania and Austria, the volume of agricultural production is still lower than 18 years ago in all Carpathian countries and regions.

The mountainous character of the area determines the types of land use and agricultural production:

The share of arable land in the proper mountainous areas is lower than 20 percent. Higher situated areas and steeper slopes are absolutely unsuitable for plant cultivation. In some areas in Romania and Poland, farmers formed terraces for strip cultivation in the late 19th and early 20th centuries, but since then in many areas cultivation has been abandoned. In the transition areas and in the fore-lands of the mountains, the share of arable land is, of course, higher.

The next more important type of agricultural land use is grazing on permanent grassland, a key element of mountain cultures, often serving as a link between mountain areas, where animals graze in summer, and lowland areas, where they graze in winter. The share of grassland in land use is about 20-30 percent in the Romanian and Ukrainian Carpathians, it is less in the higher altitudes of the Slovak Carpathians.

Permanent crops occupy a substantially smaller share of land in the Carpathians. On the lower slopes of the mountains in Slovakia, Hungary, Romania and Ukraine, there are vineyards.

The largest share of land is occupied – as in other mountainous areas – by forests. 66 percent of the mountainous area in the Eastern and Southern Carpathians is covered by forest. In the Northern Carpathians, this share is even larger: 75%. Forests are the most important and valuable resources of the Carpathians. It is especially true in Ukraine, where nearly 70 percent of the forests of the whole country are to be found in the Carpathians, which occupy only 4 percent of the area of Ukraine. It is no wonder that forests are seriously threatened by over-exploitation and deforestation in this country. In Ukraine, forests were especially endangered in the 1950s, but the danger is increasing also nowadays.

In the last decade, substantial changes occurred in the land use pattern of the Carpathians:

– The land covered by forests decreased substantially. Between 1992/93 and 2000/2001 (in less than one decade) the forested area decreased by 5 percent. This 5 percent decrease is, however, very differentiated according to coun-
tries and regions. The largest decrease can be observed again in Transcarpathia (Ukraine)\(^2\) (more than 15 percent) and in Romania (8 percent). This is mainly due to the changing socio-economic conditions. A large part of agricultural land (and forest) had been distributed among small farmers and in some years, the only way for survival for these new owners was deforestation. In addition, the institutions of the protection of forests had been weakened and demoralized.

- Forest area in the Carpathian regions of Slovakia, Poland and Hungary slightly increased. This increase was partly due to natural processes (increasing the atmospheric concentration of CO\(_2\) resulting in abundance of vegetation), partly to institutional conditions. In Poland, most forests remained in state ownership, and generally, land ownership did not change radically. Anyway, there is a long term tendency in the Polish Carpathians, to transform pastures into forests. In Hungary, a large part of forests became private poverty, and clear cutting occurred more frequently than in Poland, nevertheless, there were also incentives for afforestation and these tendencies neutralised each other.

- A general tendency in the whole region is the decrease of cropland (arable area) in the Carpathians. This decrease is quite dramatic in some areas, but even in average more than 10 percent. It is closely related to the economic situation of agriculture in the Carpathian countries. In the new competitive situation a large part of the cultivated area proved to be not competitive and efficient enough to cultivate. A part of it was transformed to forest or grassland but another part has been abandoned and is not cultivated at all. It is a general phenomenon in these countries, but especially spectacular in the Carpathian mountains.

This leads us however to the general situation of agriculture in the Carpathian countries.

Agricultural production is still lower in all Carpathian countries – with the exception of Austria and Romania – than in 1989–91, in the years of change in the political and economic system. One of the reasons is the change in the ownership and farm system. The new farms are very small (less than 1 hectare) so they are not able to produce efficiently. They lack the necessary capital, and – in many cases – also the knowledge to modernize their farm (Figure 2).

The other reason is the market problem. In most cases the marketing system which would help to sell the agricultural products of small farmers to the domestic and external (EU and other) markets is missing. At the same time, the more efficient and better marketed food and other agricultural products of the EU15 coun-

\(^2\)Interestingly, in the other Carpathian regions of Ukraine (Lviv and Ivano-Frankivsk region), deforestation is much more limited.
tries had already captured a significant part of the domestic markets of new member states. In the case of Poland, there were years in the last decades when it became net importer of agricultural products, but at the end of the period it had a slight surplus in exports (Figure 3–4).

Romania which had a balanced trade in agricultural products at the end of the 1970s, became a large net importer of agricultural products in the last 2-3 decades (Figure 5).

The former Czechoslovakia was always a net importer of agricultural and food products, but in the last decades the gap between imports and exports increased (Figure 6).

And, finally, Austria, a country, which has been always a net importer of food and other agricultural products, succeeded in 2004, to achieve a balanced trade in agricultural products and ceased to be a net importer. The geographical conditions of Austria are much less favourable to achieve this balance than in any of the other Carpathian countries. Therefore, to achieve a better balance is not a matter of geographic conditions but of structural change in the economy (Figure 7).

Figure 2


Source: FAO Yearbook.
Figure 3

Agricultural imports and exports of Hungary, million USD

Source: FAO Yearbook.

Figure 4

Agricultural imports and exports of Poland, million USD

Source: FAO Yearbook.
Figure 5

*Agricultural imports and exports of Romania, million USD*

Source: FAO Yearbook.

Figure 6

*Agricultural imports and exports of Czechoslovakia (until 1991) and of the Czech Republic and Slovakia (after 1993), million USD*

Source: FAO Yearbook.
The volume of agricultural exports of Austria amounted to 7.5 billion € in 2004, which is substantially more than the export of the other countries with larger agricultural area and more favourable natural conditions. In the same year the volume of Polish agricultural exports was 6.7 billion, the exports of Hungary 3.6 billion, of Romania 0.75 billion, one tenth of the Austrian figure, while the territory of Romania is three times larger than that of Austria.

Therefore, the reorganisation of the markets of mountain agriculture should be among the prime objectives of any development policy of mountainous regions. Within this objective, the main tasks are: the protection and promotion of mountain food products, and the reorganisation of their domestic and external markets.
6.2 Policy recommendations for the agriculture of the Carpathian area

6.2.1 The cooperation of Carpathian countries and regions in the field of agriculture

The Carpathian countries have very different endowments for agricultural production. While the plains are more suitable for plant production, mountain areas offer opportunities for animal husbandry and wood production. Areas with different endowments are relatively close to each other, enabling the exchange of goods with relatively small transport costs. These opportunities were efficiently utilised within the framework of the large empires (Habsburg, Russian, German) until the beginning of the 20th century. After World War I, however, the new countries pursued a protectionist agricultural policy, and the old agricultural trade linkages weakened substantially or totally disappeared. This protectionist agricultural policy survived for a very long time, just until the accession of the countries to the European Union in 2004. It happened, despite the fact that in 1992, the Visegrad countries established the Central European Free Trade Agreement (CEFTA), which provided measures also for the liberalisation of trade in agricultural products among the countries. Unfortunately, these provisions were not observed consequently. If a particular agricultural product in a partner country faced serious market problems, protectionist measures were frequently applied though they were not reconcilable with the treaty.

The application of such instruments was not any more possible after the accession of most Carpathian countries to the EU. Trade in agricultural products between the countries increased very dynamically. Nevertheless, opportunities for further increase are still very large.

There are opportunities for the division of labour and for the exchange of products not only within countries but also between regions. Before the centrally planned socialist system, the centres of agricultural trade were the small and medium – sometimes larger – towns at the foot of the mountains. Highlanders came down to the town-markets and sold their products there or exchanged for the products of the plain or industries. Agricultural market was one of the main functions of these towns and cities. Under socialism the purchase and procurement of agricultural products became the function of large state enterprises which skipped these small town-markets and practised central distribution of food products.

Maybe, these farmers’ markets were not the most efficient and modern ways of food trade, but certainly more efficient than state food procurement. Suitable organisation and enterprises and revitalisation of the exchange of mountain and plain products could re-establish the market function of these towns and cities.
6.2.2 *The protection and promotion of Carpathian mountain food products*

It is true, that the Carpathian mountain areas are less suitable for mass agricultural (plant) production than plain areas. To cope with this disadvantage, mountain areas should specialize in those products, for which they have better conditions. Some dairy products produced in the Carpathian Mountains were well known and famous for centuries in the larger Carpathian area. Ewe milk and goat milk are traditional products of the Carpathians. Even more important are the different types of cheese (like Cas Afumat, Brinza in Coaja de Brad, Brinza in Basica, Brinza de Burduf, Cheag, Urda, Dulle, Sarata in Romania, the drink “Zinzica”, the cheese types of “Ostiepky”, “Parenica”, “Korbaciky” in Slovakia).

The same is true for the gathering of different berries (like cranberry, blueberry, whortleberry) and mushrooms, which are to be found only in the forests of mountain areas. For many poor people in the mountains their gathering is an important source of income and living.

In order to promote the production and markets of authentic mountain products, the European Parliament proposed the preparation and adoption of a Charter to protect mountain food products in Europe. The European Charter for Mountain Quality Food Products was signed on 11 December 2005 in Strasbourg.

The Charter defines first, what can be regarded as Mountain Quality Product. Five qualities should be fulfilled:

− Raw materials must be derived from a mountain region
− Processing must be carried out in a mountain region
− Production must take into account concerns relating to sustainable development;
− Production must attempt to maintain the biodiversity and heritage of mountain regions;
− Producers must be able to guarantee at all times the transparency of information to consumers.

The Charter has two main objectives: an economic development objective and a policy objective:

The economic development objective aims to provide better identification of quality mountain products in the market and to avoid counterfeits and misinterpretation that would be detrimental to producers and consumers.

The policy objective is to recognise and promote the role of farmers and enterprises that produce benefits for society in the mountain areas of Europe and defend their interests. It would serve the objective to maintain the population in the mountains.

The definition of mountain quality food products helps to ensure accurate labelling and better protection of a niche in the European food market.
Another – and older – measure of the European Union is to ensure protection to national speciality foods. It is not restricted to mountain foods, but – obviously – mountain food products should utilise also this opportunity.

To get EU protection for a given national speciality, the application must be submitted to the European Commission. The Commission has one year for scrutinizing the application. They can ask questions from the national authorities concerning the preparation of the food to be protected. After one year, they publish the description of the food and its preparation in the Official Journal. Other countries can remonstrate against it in the next six month. If there is no serious remonstrance, the food will be registered as protected. If there is remonstrance against it, the two respective countries have to negotiate about it.

Old member countries of the EU have more than 100 registered and projected types of mountain food each. New members are just starting to apply for registration. So far, the Czech Republic achieved substantial progress, because they succeeded to include into the Accession Treaty the protection of several types of food, among them most types of Czech beer. Slovakia, Poland and Hungary made the first applications just recently and Romania did not yet apply so far for registering its food specialities. Unfortunately, there are very few mountain products among those which were submitted for protection.

Submitted applications for EU protection of foods (only those in the Carpathian regions of the respective countries)

<table>
<thead>
<tr>
<th>Country</th>
<th>Already registered and protected</th>
<th>Application under investigation</th>
<th>Submitted by national authorities, but still not investigated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>Stramberk “ears” (sweet wafer)</td>
<td>Niva cheese, Olomouc tvargle, Moravian-Silesian sauerkraut,</td>
<td>Pohorelice carp, Old-Brno beer, Brno beer, Znojmo beer</td>
</tr>
<tr>
<td>Hungary</td>
<td>–</td>
<td>–</td>
<td>Apricots of Gönc</td>
</tr>
<tr>
<td>Poland</td>
<td>Podhale ewe’s cheese</td>
<td>Oscypek smoked cheese</td>
<td>Korczin bean, Carp of Zator</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Skalicky trdelník (pastry horn)</td>
<td>Parenica, bryndza, ostiepok smoked cheese</td>
<td></td>
</tr>
</tbody>
</table>

According to the table, Carpathian countries still have to make serious efforts to register and protect their special mountain food products.

6.2.3 Flexibility of EU CAP and national regulations in the Carpathian Area

In 2004 Poland, Slovakia, the Czech Republic, in 2007 Romania became a member of the European Union and they became eligible for the EU CAP support. Despite several similarities, the agricultural and farm structure of the Carpathian countries is much differentiated. Therefore EU intervention and regulations must be flexible to consider these important differences.

Some important indicators of agriculture in the Carpathian countries (Table 3).
The share of agricultural employment is 4–7 percent in Austria, Czech Republic, Slovakia and Hungary, while it is 38 percent in Romania and 18 percent in Poland. The average farm size is about 140 ha in the Czech Republic and Slovakia, while it is 10–20 ha in Austria, Poland and Hungary and only 2 ha in Romania. It has to be added that in mountainous areas the share of agricultural employment is everywhere higher and farm size is everywhere smaller than the respective national averages.

Different is also the structure of EU support. In Austria, Czech Republic and Hungary, about 60 percent of it is used for direct payments and intervention (Pillar 1), this percentage is about 50 percent in Poland and Slovakia and 40 percent in Romania. The share of Pillar 2 (restructuring and rural development) has, accordingly, a reversed ranking.

Generally, the type of EU agricultural support is different in the old and new member states. New member states did not have those statistics and documentation which would be necessary to apply the system and measures of support of the old member states. Therefore in all new member states (with the exception of Slovenia) a simplified system is applied the so called “Single Area Payment Scheme” (SAPS). It means that the quantity of EU support depends exclusively on the size of agricultural area cultivated by the farmer.

The other specific feature of the agricultural support system of the new member states is that, considering the relatively low level of EU support in the first years of membership, national governments are entitled to pay a complementary support to
their farmers which has to be gradually reduced during a 10 years transition period. At the end of the 10 years, farmers of the new member states will enjoy the same EU support than farmers of EU15. The name of this national support is “Compensatory National Direct Payments” (CNDP).

Though SAPS might have several advantages, it is disadvantageous for the mountainous regions, because animal husbandry and its need for support are totally disregarded. Animal husbandry is anyway a shrinking sector of Central European agriculture: if disregarded in support schemes, it will certainly further decline. National support schemes (CNDP) therefore consider livestock of the farms and support is paid accordingly.

Recent experiences, however, had shown that this type of support favours first of all the large farms with large herds of animals in the plain regions and much less mountain areas. Therefore, a new solution has to be found for the problem. Several experts and institutions suggest that support for animal husbandry in new member states should be coupled with the so called LFA (Less Favoured Areas) support, paid in areas with unfavourable natural conditions for agriculture. This scheme would help to concentrate special animal husbandry support to areas with some natural or economic drawbacks. It would be part of the CNDP and of EU support system as well.

Simultaneously, LFA support design should be revised as well. In old member states 35 percent of LFA support goes to mountain areas, while the respective percentage in new member states is only 28 percent, though mountainous agricultural areas represent as high percentage of agricultural area as in old member states.

Another policy proposal refers to the distribution of dairy production quotas. Dairy production is the branch of agriculture where production and procurement is most strictly controlled and restricted in the EU. Nevertheless, production and procurement quotas are sometimes quite mechanically allocated to regions and farms, disregarding the geographic conditions. Mountain areas, where dairy production is one of the most important – if not the “most important” – branch of agriculture, should be preferred by the allocation of quotas. The same is true for livestock limitations. The number and size of livestock is related to the size of cultivated area. In mountain areas, however, this relationship is specific and cannot be compared to the farms in the plain areas.
6.2.4 Diversification of mountain economy

Beyond all these policy proposals, improving the conditions of mountain farms, the basic problem is agricultural overpopulation and over employment in some, first of all mountainous areas. This is the basic obstacle of increasing productivity, efficiency and competitiveness of Carpathian agriculture. In some regions of the Polish and Romanian Carpathians, 40–50 percent of the working force is employed in agriculture and the farm area per one employed is extremely small. In some areas, “agricultural employment” even increased in the last one and half decade, because agriculture had to absorb those people who have lost heir job in mining and industry. The only solution is – disregarding emigration – to establish non-agricultural jobs and diversify the economy in these areas. These possibilities will be dealt with in the chapters on industry and tourism.
7 Industry in the Carpathian area

7.1 Situation and challenges

While in some areas of the Carpathians, agriculture remained the largest sector of employment, in most Carpathian regions industry played the role of most important employer until the most recent period. This role of industry was reinforced by the fact that services were underdeveloped in most former “socialist” states, and they could not fulfil the same role in employment than in the Western European countries. Employment in services increased dynamically only in the last one and half decade, and now this sector is the main employer in most – but not in all – Carpathian regions.

7.1.1 Mining

Though younger mountain ranges (like the Alps, Pyrenees and Carpathians) are less rich in mineral wealth, the Carpathians were – from the Middle Ages – one of the most important places of mining in Europe. There were four major gold and silver mining areas in the Carpathians: the North-East Carpathians (Baia Mare, Baia Sprie, Kapnik – all in Romania), the Transylvanian Island Mountains Apuseni (Abrud, Romania Alba county), the North-West Carpathians (Banska Stiavnica, Banská Kremnica, Banská Bistrica all in Slovakia), and the North Carpathians (Gelnica, Banská Belá, Roznava, Spiesská Nová Ves, Jasov in Slovakia and Rudabánya, Telkibánya in Hungary). In the 13th century the volume of production was 1000 kilogram gold and 10,000 kilogram silver yearly, which was 80 percent of the total European gold and 20 percent of the silver mining. Nowadays, Australian and Canadian firms try to revitalize gold mining in Romania and Slovakia, but the applied cyanide technology implies serious environmental dangers and hazards. In several places in the Transylvanian Carpathians salt was – and partly is – extracted (Figure 8).

The largest hard coal reserves of Europe are to be found in Poland, Silesia. Poland is the 7th largest coal producer of the world and the first in Europe (the larger Russian coal mines are in Siberia). The mines are not in the proper Carpathians, but still in the wider Carpathian region. In the last 15 years the volume of Polish coal production somewhat decreased, but its efficiency and competitiveness increased. It was the result of the restructuring, partly privatisation and of the closure of the least efficient mines. But restructuring is still not finished and there are still inefficient mines. Nevertheless, coal remained the basis of Polish energy economy and one of the main export items of the Polish economy.
The Southern part of the Silesian hard coal basin is in the Czech Republic: it is the Ostrava-Karviná coal basin. Coal mining in this area is more than 200 years old. In the Ostrava area, all mines have been closed in the 1990s, only the mines in the Karviná area are operating. Production decreased, but efficiency and mechanisation increased also in this area. Being the only hard coal mine in the Czech Republic, the government plans the continuation of the production for a longer period.

Figure 8

*The major mining fields and arms industrial sites in the Carpathians*

Key: 1 – Arms industrial sites; 2 – Main mining fields.
Source: Author’s construction.

In Slovakia, most of the coal mines are – because of inefficiency or depletion – closed for now. Hard coal is not to find in Slovakia, the most significant brown coal mines are in Upper Nitra (Hornonitrianske Bane Prievidza).

In the Hungarian Carpathian region all coal mines are already closed, only some open pit lignite mines are still operating.
In Romania, the only hard coal mine is (was) in the Southern Carpathians in the Jiu Valley. In the recent decades several restructuring programmes of coal mines were implemented in this Carpathian region. Obviously, the implementation of these programmes entailed tensions and problems everywhere. The Jiu Valley restructuring programme, however, is unique in the sense that after 20 years of efforts and several bailing out operations, the solution is not yet in the horizon. Bad management and political intervention resulted in a dramatic situation.

Coal mining had several and serious impacts on the environment and on the social-economic situation. Excavated waste rock was about half of the quantity of produced coal. A larger part of it was used by the building materials industry, in the reclamation of surface ground or as filling of gobs. But a large part has been deposited in waste rock piles. A huge amount of cavern water have been pumped out which is also a non-renewable resource. In areas of long time underground mining, the surface had been deformed substantially. In this areas land slides and depressions occur frequently. In areas of open pit mining whole settlements, villages had to be relocated. This occurred in the Czech Republic, Hungary and Romania several times in the last decades (Figure 8).

In the 1970s, about 1 million people worked in the mining sector in the Carpathian region. Today, the number of employees of the sector is about 340 thousand. Its distribution among countries is the following: 177 thousand in Poland, 90 thousand in Romania, 55 thousand in the Czech Republic, 15 thousand in Hungary and 9 thousand in Slovakia (2006 data). 700 thousand high-wage jobs disappeared in the area which could not be replaced in other sectors. Many cities and settlements, which belonged to the most prosperous ones, are regarded now as crisis areas with high unemployment and low incomes. Infrastructure and services which were operated and maintained by the mining companies are now in a deteriorated and poor condition.

7.1.2 Manufacturing

The Carpathian area was for a long time an industrially less developed part of Europe, and even when industrialisation took place, the industry located in the Carpathian regions was an industry with distorted, imbalances and unfavourable structure:

A large part of industries were of extractive and primary processing character. Based on the mines a metallurgical industry and based on the forests a timber industry has been developed, but frequently only the first phases of the processing were located in the Carpathian area, which had less value added content. These industries offered jobs only for the male population. Industries were based on exhaustible resources, and these resources were used rather wastefully and with extremely
harmful environmental impacts. Air pollution was stuck in the narrow valleys, causing serious health hazards.

In the middle of the 20th century, a new phenomenon appeared in the Carpathian area. A substantial part of the arms industries were located in this area. In Poland, these new elements appeared already in the 1930s. Since 1928, there were recurring attempts in Poland to create a “triangle of security”, an industrial region in the middle of the country, secured from any invasion by Germany or Soviet Russia. By April 1938 the plan was set in motion and expanded to territories beyond the early plan for the most secure “triangle”.

The Central Industrial Region (Centralny Okręg Przemysłowy, COP) was one of the biggest economic projects of the Second Polish Republic. The 4-year long project was initiated by the deputy Prime Minister and Minister of Finance, Eugeniusz Kwiatkowski. Its goal was to create a heavy industrial centre in the middle of the country as far as possible from the German and Soviet borders (from the south they did not expect any invasion), to strengthen the Polish economy and to reduce unemployment. Though it was said to be the middle of the country, it coincided more or less with the foreground of the present Polish Carpathians. The 4–5 year plan of development of the COP was scheduled from 1 September 1936 until 30 July 1940 and was interrupted by the outbreak of World War II. Nonetheless, the COP project has succeeded in vastly expanding Polish industry, and after the end of the war COP was rebuilt and expanded. The following industrial projects were part of the plan. Steel mill and electric power plant in Stalowa Wola, rubber factory in Dębica, aircraft factory in Mielec, aircraft engine and artillery factory in Rzeszów, hydroelectric power plants in Rožňov and Myszkowice, expansion of the Zakłady Azotowe in Mońcice.

At present, the locations of arms industry in the Polish Carpathian region are Jasło, Stalowa Wola, Mielec, Świdnik, Rzeszów, Tarnów, Nowa Deba and Bierun.

After World War II, Slovakia became the main focus of Czechoslovak industrial development. The reasons were the stronger lobbying potential of the Slovak leadership in this respect, the mechanic imitation and servilism following of the Soviet practice, where defence industries (within a much different spatial dimension) were located in the Eastern part of the country. But, a certain role has been played also by the sincere intention, to implement the requirement and idea of convergence in regional development between the Czech and Slovak lands.

New plants were located mostly in the Northern – Carpathian – half of Slovakia, especially in the valleys of the rivers Vah and Hron. The majority of the new plants belonged to the heavy industries and within it, to arms industries. The huge concentration of these industries in Northern and North-Western Slovakia – in Martin, Dubnica, Detva, Považská Bistrica, Trencin was significant even in European context. By the 1980s, the degree of Slovak industrialisation matched the Czech level, in respect to defence industries even surpassed it substantially.
Even in the Czech Republic, a substantial part of the arms industry was located in the Eastern part of the country, in the Czech Carpathian Region (Uhersky Brod, Kunovice, Koprivnice, Vitkovice, Novy Jicin, Vyskov, Vsetin, Brno, Bojkovice).

In the former Soviet Union, Ukraine was the main area of arms manufacturing. Nearly half of the all-Soviet arms industry was located in Ukraine. It refers, however, mostly to the Eastern part of the country. Western Ukraine – close to the Western borders of the Soviet Union, was substantially less engaged in armament industry. Nevertheless, arms industry was significant also in this part of the country. Ivano-Frankivsk was a closed city until the independence of Ukraine. Foreigners were not allowed to enter this city. Several other cities in the mountainous areas of the Ivano-Frankivsk region were also involved in arms manufacturing.

Romanian arms industries were located mostly also in the Carpathian area (Brașov, Ploesti, Orastie, Fagaras, Sadu-Gorj, Dragomiresti, Cugir, Plopeni, Moreni, Zernesti, Resica).

Hungarian armament industries were and are located mostly in and around Budapest. In the 1950s, during the “Cold War”, however, following the Soviet example, new armament manufacturing plants were located in the North-Eastern part of the country (Téglás, Sirok, Sajóbábony, Diósgyőr). In the 1970s-80s most of them were fully converted to peacetime production.

Unemployment augmented suddenly and substantially in these Carpathian regions. The situation was dramatic because these regions – at least some of them – used to be the favourite and wealthier regions of the area. The crisis of these regions lasted in the more fortunate regions until the end of the nineties, in the less fortunate ones until now. By 2003, through restructuring, privatisation and FDI in the motor car industry (see later), the the Czech, Slovak and Polish regions recovered from crisis. In the Ukrainian, Romanian and Hungarian regions with this former profile, several problems still remained to be faced and to be solved.

7.2 Policy recommendations for the industry of the Carpathian area

7.2.1 The “brown-fields” problem

Brownfield are those industrial and other non-agricultural and non-residential areas where former activities are abandoned and at present the areas are not used for any economic, residential or leisure purposes.

The Carpathian mountainous regions are facing an extremely difficult brownfields problem for three reasons. The brown-fields problem emerged for them in an extremely short period, in extremely large quantity and it affects an extremely large proportion of the potential industrial area:
The brown-fields problem is a direct and concomitant consequence of the economic transition from centrally planned to market economy. A very large part of industrial firms established under the directive central planning regime, proved to be inefficient and uncompetitive in the open market economy. Abandonment of economic activity happened within a very short time period, between 1991 and 1996, it means within 5 years in most Carpathian countries. While in Western countries, the problem emerged gradually during several decades, Carpathian countries had to face the problem in five years;

In the Western countries, the brown-fields problem emerged as a consequence of the decreasing demand for some products or as a consequence of obsolete technologies. These problems do not occur at the same time in all industrial branches. The consequences of the inefficient and uncompetitive centrally planned economy emerged at the same time in all sectors and branches of the economy. There emerged such a huge number and area of brown-fields, which is unparalleled in market economies;

The processes described above are common to all countries and to the whole area of the respective countries. In the mountainous areas, however, the situation is more acute, because in the narrow valleys there is very restricted place suitable for industrial location and a very large part of this restricted area is occupied by brown-fields. Therefore, if these brown-fields are not cleaned up, then there is no possibility for new industrial investment.

Clean up and reuse of brown-fields is in most cases more expensive and less attractive for investors than green field locations. That is a main difficulty of revitalisation, because local governments cannot force investors to use brown-fields and rigid insisting upon brown-field utilisation might discourage the investors from selecting the city or region for their investment. But brown-fields are discouraging and repulsive also for tourism developments. Unfortunately, several brown-fields are situated in the immediate vicinity of the most valuable natural and cultural heritage sites in the Carpathians (for example abandoned cement factory before the entrance of the Cheile Bicazului – Gorge Bicaz – in Romania).

Brown-fields are special problem if they are contaminated with dangerous and harmful chemical substances. Unfortunately, several brown-fields belong to this category in the Carpathians. Their reuse requires much more effort and much more money. Sometimes even the cleaning procedures are not yet properly elaborated and tested. Therefore research in this field should enjoy priority in I&TD programmes.
How to clean up this huge amount of brown-fields in the Carpathian area? Unfortunately, one chance has been missed in most countries and it was the privatisation phase. In the 5 new Länder in Germany, the “Treuhandanstalt” connected privatisation with the obligation of cleaning up and reuse of brown-fields. In most Carpathian countries priority was given to the privatisation methods of management and employee-by-out, voucher privatisation, or to the budgetary revenue from privatisation and not to the clean up of the areas. The situation was somewhat better in the Czech Republic where a certain proportion of privatisation income and to be used for the environmental rehabilitation of industrial sites. A posteriori it is extremely difficult if not impossible to enforce the fulfilling of this obligation. Most of these real estates have changed proprietor several times during the last 15 years.

Carpathian countries and regions have to use the following instruments to solve the “brownfields” problem:

- The privatisation of the remaining stock of state-owned industrial assets should be strictly connected to the clean up and reuse of brown-field areas.
- The proprietors of brown-field areas should be obliged to clean up these areas within a given period of time. In case of non-compliance they should loose their real estate or should pay serious penalty;
- In the course of urban planning the reuse of brown-fields should be more seriously enforced. New industrial areas should not be designated until large brown-fields are not re-utilized.
- Both the EU and national governments should assign high priority to the re-use of brown-fields in their structural support policies. Brown-fields should enjoy the same status as convergence or remote areas, in the case of Carpathian countries most brown-fields are anyway in Convergence regions. In case of brown-field utilisation multinational and big enterprises should have also the opportunity, to become subjects of EU and national support.
- As already mentioned, business investors are frequently repulsed by the costs and complications of brown-fields reutilisation. Therefore, brown-field clean up should enjoy support also in the case, if it would be used for residential development purposes. In many cases, residential use is the only possible way of re-utilisation. However, this method can be applied only if the areas are not contaminated.
- In abandoned mining and manufacturing places there are two options of utilisation. Either to fully remove the remnants of the older industrial assets and start building a new in a cleaned up area, or use the area as an industrial or mining heritage place, for an open air museum or for other educational, leisure or other cultural purposes (like many places in Germany, Britain and the Czech Republic, or like several salt mines in Austria, Poland and Romania for a mining museum). Obviously, the transformation to industrial or mining museum requires also some investments;
− In recent years, there were innovative remedial techniques employed at distressed brown-field properties. A remedial strategy uses naturally occurring microbes in soils and groundwater to expedite a cleanup, and in situ oxidation, which is a remedial strategy that uses oxygen or oxidant chemicals to enhance a cleanup. Often, these strategies are used in conjunction with each other or with other remedial strategies. Some brown-fields with heavy metal contamination have even been cleaned up through an innovative approach that utilizes deep-rooted plants to soak up metals in soils into the plant structure as the plant grows. After they reach maturity, the plants – which now contain the heavy metal contaminants in their tissues – are removed and disposed of as hazardous waste.
− If nothing else, then the assessment and appraisal analysis of cleaning up the brown-fields should be supported. A thorough analysis is namely indispensable before starting any clean up exercise.

7.2.2 Conversion

The task of conversion has been already – in large part – fulfilled in the Carpathian region. Nevertheless, there are still capacities which have to be converted to civilian use. The community initiative CONVER of the EU ceased to exist from the year 2000, but there are other Funds and ways for supporting these actions.

7.2.3 Industrial diversification and the problem of the “one-factory-towns”

One-factory-towns are a specific problem of new member states but even more of the Carpathian area:

“Socialist industrialisation” has acknowledged only big enterprises. SMEs did not exist under socialism because they were difficult to control in the state owned economy. Therefore industrialisation meant to establish one large enterprise in smaller towns which would provide jobs and income to the population of the town.

But in several cases, this single enterprise did not provide only jobs and income to the town, but it also undertook the responsibility of service provision to the population. Nursery and kindergarten were operated by the single enterprise. These plants provided housing and heating to their employees. Cultural and sports facilities were also the property of the enterprise. They have supported local authorities to construct new roads, water and sewage facilities in the town etc. These services were initially intended to serve the employees of the enterprise but later – if the enterprise was in good financial position – they were extended to the whole population of the city, since – directly or indirectly – everybody was connected anyway
to the single enterprise of the town. The enterprise was in a monopolistic situation and the population of the town was – in a sense – exposed to the mercy of the enterprise.

The situation became especially critical, if this single enterprise gone bankrupt. It was not only an economical, but a very serious social problem as well, because there were no other jobs in the town and in its surroundings. Even the basic services could not be sustained, because they were operated by the enterprise. Governments were forced to bail out the firm because otherwise the fundamental living conditions were endangered. But this bailout did not ensure any improvement in the efficiency and competitiveness of the enterprise.

One-factory-towns existed in rather large numbers in the Carpathian regions of Poland, Slovakia, Ukraine and Romania, but there were similar towns – though in lesser number – also in the Czech Republic and Hungary.

The proposed measures and institutions, dealing with this problem, are the following:

− The local governments of the respective cities should be strengthened and supported, in order to enable them for the takeover of those communal and social services which were provided in the past by the single big firm in the town. After takeover, they can be privatized to other firms, independent from the one which “monopolized” the town’s economy. It refers, first of all to housing, heating, nurseries, kindergartens, local transport and health services.

− It should be avoided that in the future similar situation arise. It is important, because not only “socialist enterprises”, but modern, national and multinational firms are sometimes willing to monopolise the employment opportunities of the town and exclude competitors from the area. For that aim they are sometimes willing to provide services which do not belong to their proper business activity. Local governments and the inhabitants welcome this patronage, releasing them from some obligations. Serious critical situation could arise, however, if the multinational firm moves to other countries or regions, where labour is cheaper than in the present location. Of course, firms can support local governments financially, but not with own provision of – otherwise communal – services.

− Economic and employment diversification is more served by several small and medium size enterprises, operating in different sectors or branches of economy, than by a single big enterprise. Therefore priority should be given to the support of SMEs. Unfortunately, practically in all Carpathian countries, the largest government support – taxation allowances, capital grants – are given to the large multinational enterprises, to attract them to the country. On the one hand it is understandable, because large multinationals bring also the know-how, the export and the hope for later higher tax incomes, but their
employment impact is moderate and expectations concerning future higher
tax revenues several times prove to be illusions.

- Significant foreign direct investment in Carpathian towns and cities can be
  connected to diversification, if assembly parts and accessories for the main
  plant are produced in the same region by domestic small and medium enter-
  prises. These SMEs should be – on the one hand subcontractors and suppliers
  of the big enterprise. On the other hand, they should be independent enter-
  prises, who are producing not only for a single factory but for other cos-
 umers as well. National and regional governments should insist upon that
  within reasonable time the share of supplies and deliveries of domestic con-
  tractors should increase. It could be a condition of supports and allowances to
  the large firms. On the other hand, subcontractors should make efforts not to
  be fully exposed to one single customer.

7.2.4 Promotion and support of SMEs

This policy proposal is closely related to the former one. It should be emphasised
here that the promotion of SMEs in the new member states is quite different task
from the same activity in the old member states, and therefore requires different
approaches and instruments.

SMEs practically did not exist in the socialist states. All economic activities
were organized in large socialist firms. These large units were easier to control
centrally and to impose centrally defined production, sales, employment and in-
vestment target figures on them. Small and medium units did not fit into this eco-
nomic system.

It follows that SMEs had to be created after the system change, in the last 16–17
years. Very few could be created from a smaller part of a privatised big state-
owned enterprise (mostly retail shops, the so-called small privatisation), most of
them had to start from zero. They did not have the time to accumulate the required
capital, therefore most of them are suffering from shortage of capital.

Some “older” EU member countries (like Italy) insist upon to apply the same
(or even stricter) regulations by supporting SMEs in the new member states than it
was the case in the old ones. They refer to the lower wage level of new member
states which makes SMEs more competitive and therefore they are against capital
grants to SMEs in the new member states.

But the key question is that without the minimum required capital, SMEs in
new member states (and especially in their less developed regions, like the Carpa-
thian area) will be never competitive with SMEs in old member states which had
many decades – or sometimes centuries – to accumulate the necessary capital.
Therefore, they have to be dealt with differently.
7.2.5 The Carpathian motor car industry cluster

Besides the problems of transition, the last twenty years witnessed also very positive developments in the industry of Carpathian countries. One was the fundamental restructuring of industry. The two main branches of industry became motor car industry and electronics. In Slovakia, by 2008 nearly 40 percent of total industrial output and even larger percentage of industrial exports was produced by the motor car industry. This share is somewhat lower in the other countries, but also very high.

The region’s advantage lies in the fact that it enjoys a well-educated, highly qualified and polyvalent labour force with significantly lower labour costs, exceptionally high technical capabilities and a high-quality supply base. Subsequently, the growth of joint ventures and acquisitions and the success of green-field operations are some of the driving forces that encouraged motor car concerns’ decision to initiate new research development and production engineering facilities.

Technological know-how, access to local and mature Western markets, continued product quality and development, lower labour costs, subsidies and incentives from national and local governments and loans from the European Bank of Reconstruction and Development and from the European Investment Bank all point towards growth and rebirth of the region’s automotive industry. This therefore presents a key example of regional restructuring where renewed economic structures are prioritised, such as adaptation to changing demands and entrepreneurship.

The interesting development is, that all these new investments were implemented in a relatively small area, embracing some parts of four countries: Czech Republic, Hungary, Poland and Slovakia. The area begins from the riverside of the Danube in Hungary and Slovakia, continuing in the valley of the river Váh and through the Silesian gate to the most southern parts of Poland. Along this line the main motor car or parts manufacturing plants are the following:

- Esztergom HU (Suzuki assembly plant, Gyor HU (Audi motor and assembly plant), Bratislava SK (Volkswagen gear and assembly), Tmava SK (Peugeot and Toyota), Zilina SK (Hyundai KIA), Martin SK (Volkswagen parts, axels, steering), Ostrava CZ (Siemens, parts), Nosovice (Frídek-Místek Hyundai) CZ, Bialsko-Biala PL (Fiat), Tychy PL (Fiat), Gliwice PL (Opel assembly and parts) (Figure 9).

Together, this area will produce by 2008 nearly 2 million motor cars, and will employ about 20 thousand people.

But the real significance of the cluster is not even in these large foreign owned plants, but in the several hundred SME suppliers, who are working for and delivering to these large plants.

The possibilities for local suppliers are not yet exhausted. Due to technical development, the parts and accessories of cars are more and more portable (that means that they fit not only to one but to several types of cars), suppliers are not
bound to one manufacturer, they can serve several of them. That makes the grouping of manufacturers to become really a cluster, with multiple cooperation and bindings. This element of the cluster should be enhanced and supported in the future.

Figure 9

*The major centres of the automotive industry in the Carpathians*

*Source: Author’s construction.*
8 Urban Network in the Carpathian area

8.1 The situation and problems

Urban Network and Urbanisation in the Carpathian area were determined by history and geography:

One of the main factors was the peripheral situation of the Carpathians. The Carpathians constituted the borders of the old Hungarian Kingdom and therefore the Carpathians were per definitionem the peripheries of the kingdom. But they were per definitionem the borders and therefore the peripheries of the neighbouring countries, of Poland and of the Romanian principalities as well.

Now, the Carpathians constitute the border between Poland and Slovakia, between the Czech Republic and Slovakia, partly between Romania and Ukraine. The Ukrainian Carpathians constitute not any more the border line to Hungary and Slovakia, but they are in an absolutely peripheral situation within Ukraine. In Romania, The Carpathians are now in the centre of the country, but some features of peripherality have been retained. They constitute everywhere the borders of the countries (judets) and of the NUTS2 regions. Furthermore, they represent until now a dividing line in the country both historically, sociologically, politically and even in administrative systems.3

The peripheral situation was reflected in the urban system. All the big urban centres, from where the Carpathian area was governed and controlled (Vienna, Budapest, Warsaw, Prague, Bucharest) were outside of the proper Carpathian area. The largest cities in the wider Carpathian region, Cracow and Lviv had a population of 154 thousand and 176 thousand respectively in 1900. At the same time Vienna had 2 million, Budapest 1 million inhabitants. The other cities in the Carpathian region were even smaller: Bratislava had 62 thousand, Timisoara 72 thousand, Uzhgorod 14 thousand inhabitants (Figure 10).

8.1.1 Small towns

In the same period, there was a dense and lively small town network in the Carpathian area. These small towns were rather poor and there was much room for improvement of the infrastructure, but they had their self government, cultural and town embellishment societies and other active civilian organisations. Their economic base was trade, small-scale industry and agriculture. The large majority of the population lived, however, in villages, rural areas.

3For example, until 1999, when the Act on Cadastre and Real Estate Publicity became effective, Romania had a dual land registration system: the land book system in Transylvania, and the land inscription/transcription system in the other parts of the country.
One important feature of the urbanisation of the Carpathian area was in the late 19th and early 20th century that the ethnic composition of urban and rural population was rather different. In the Polish Carpathian region, a substantial part of urban population, especially in smaller towns (the so called “shtetls”) was Jewish, while the rural population was Polish and Ukrainian. In the Ukrainian Carpathian region, a large part of urban population was Jewish and Polish and of rural was Ukrainian. In Slovakia, urban population was German, Jewish and Hungarian, rural population Slovak in majority. In the Transylvanian area, urban population was mostly Hungarian, German and Jewish and of rural was Romanian and Hungarian.

During and after World War II huge and dramatic changes occurred in the number and composition of urban population of the Carpathian area. The Holocaust resulted in the disappearance of the vast majority of the Jewish population from Carpathian towns, through both extermination and mass exodus. German population also disappeared from Polish, Czech, Slovak and Romanian towns through
expulsion and emigration. The Polish population emigrated from the Ukrainian towns, a part of the Hungarian population emigrated from the Transylvanian cities and towns. Several towns have lost more than half of their population. Large cities have recovered (in terms of population numbers) rather soon. Some small towns however did not recover (at least not until the present time).

Small towns have been disadvantaged also through other measures in the “socialist” period:

- These small (or larger) towns were formerly the scenes of the exchange of mountain products and plain products. They represented the markets of both types of agricultural products. At the same time, farmers have spent their money, received for their products, in the shops of these towns. It was the main function of these cities along the “market Chain (line)”. After the collectivisation of agriculture, they lost their agricultural market function, especially cities in the foreland of the Carpathians. The products of collectivised agriculture were sold straight through the central procurement system of the state, while avoiding the markets of small towns.

- Industrialisation started in the larger cities. Until the large cities could absorb industrial investment and their labour resources were not exhausted, most large industrial investments were allocated to larger cities. Only when these resources were fully exhausted, central ministries were forced to allocate investments also to smaller towns. These investments most frequently created “one-factory towns” or they belonged to the armament industry, and small towns served as the “hiding place” of these industries.

- The administrative role and function of cities and towns was extremely important in the socialist period. In a highly hierarchical society, where all directives and all resources are coming from up to down, it is a critical question, where a person or a local government, a city is situated within the hierarchy. Those on the upper levels, dispose of the development resources and they allocate them among the lower level organisations rather arbitrarily, frequently following self-interest. Cities which had some regional administrative function, could distribute the resources, received from the higher level, so, that their own share was disproportionately high. Towns without this administrative position were defenceless against such acts.

- After 1945, Carpathian countries had to take over the Soviet territorial administrative system. It had 4 levels: national level, regional level, district level, local level. District level was immediately over the level of villages, the seats of the districts were in the smaller towns. District level was represented in Poland by the “powiats”, in Czechoslovakia by the “okres”, in Ukraine and Romania by the “rayons”, in Hungary by the “járás”. Obviously, it can be discussed whether this Soviet type administrative system was suit-
able for the smaller Carpathian countries. Nevertheless, the “district seat” role ensured for smaller towns a central function and the associated jobs and resources.

– In the 1970s, however, several Carpathian countries transformed their territorial-administrative system. They established smaller regions, and – simultaneously – they abolished the district level (in Poland the powiats, in Romania the rayons, in Hungary the járás). It meant that small towns have lost their administrative centre function and with it the jobs, and other associated institutions. They have lost the function of resource allocation and could not favour their seat town in this allocation process. Small towns preserved this function only in the Czech Republic and Slovakia. In the latter countries small towns did not decline so dramatically than in the other Carpathian countries.

– The 1999 administrative reform in Poland re-established the powiats. But in the 25–30 years meantime, since the abolishing the powiats, local governments (Gminas) have been consolidated, strengthened and upgraded in function. So, powiats could not regain all the functions and power what they had enjoyed before.

8.1.2 Large and medium cities

Larger towns, with administrative centre function – in contrast to small towns – grew and developed very rapidly. The main driving force of this growth was industrialisation and all other development aspects (housing construction, infrastructure development) were the concomitants of industrialisation and administrative function.

According to Table the most dynamic was the growth in the Romanian cities. If we disregard the specific development of Suceava, the 2000 population of the big provincial cities was 3–4–5 times higher than 50 years ago. Similar high rate of urbanisation did not take place in other parts of Europe. It was related also to the collectivization of agriculture, which urged many farmers, peasants for leaving rural areas and fleeing into cities (Table 4).

---

4 The capital city of Bukovina was Chernivtsi. After World War II Bukovina was divided between Ukraine and Romania and Chernivtsi was in the Ukrainian half. Suceava became the capital of the Romanian Bukovina and this administrative change accelerated the growth of the city tremendously.
Table 4

Carpathian cities with the most dynamic population growth 1950–2000

<table>
<thead>
<tr>
<th>City</th>
<th>Population 1950</th>
<th>Population 2000</th>
<th>Growth, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in thousands</td>
<td></td>
<td>in thousands</td>
</tr>
<tr>
<td>Suceava (RO)</td>
<td>10.1</td>
<td>117.6</td>
<td>1064</td>
</tr>
<tr>
<td>Baia Mare (RO)</td>
<td>28.0</td>
<td>150.0</td>
<td>436</td>
</tr>
<tr>
<td>Bacau (RO)</td>
<td>39.0</td>
<td>197.2</td>
<td>433</td>
</tr>
<tr>
<td>Pitesti (RO)</td>
<td>38.3</td>
<td>186.0</td>
<td>386</td>
</tr>
<tr>
<td>Kosice (SK)</td>
<td>60.7</td>
<td>242.0</td>
<td>299</td>
</tr>
<tr>
<td>Brasov (RO)</td>
<td>84.0</td>
<td>310.0</td>
<td>269</td>
</tr>
<tr>
<td>Piatra Neamt</td>
<td>34.9</td>
<td>124.0</td>
<td>255</td>
</tr>
<tr>
<td>Uzhgorod (UA)</td>
<td>35.0</td>
<td>118.0</td>
<td>237</td>
</tr>
<tr>
<td>Ivano-Frankivsk (UA)</td>
<td>65.0</td>
<td>218.0</td>
<td>235</td>
</tr>
<tr>
<td>Timisoara (RO)</td>
<td>112.0</td>
<td>330.0</td>
<td>194</td>
</tr>
<tr>
<td>Cluj-Napoca (RO)</td>
<td>117.9</td>
<td>329.0</td>
<td>179</td>
</tr>
</tbody>
</table>

Source: National statistical yearbooks.

This high rate of urbanisation, compounded by socialist ideology, economic policy and urban planning, resulted in the total transformation of urban structure:

− City centres were totally neglected: urban dwellings were nationalised and neither the state authorities nor the dweller cared for their maintenance; commercial banking was abolished, trade was the “for the time being necessary evil”, tourism was strictly restricted. So the traditional functions of downtown areas disappeared and it lead to a dramatic decline and deterioration of most city centres;

− For the new immigrants huge multi-storey housing estates were built on the periphery of cities. These housing estates, provided with the basic comfort, meant a huge social rise for the masses, coming from the rural areas. In some cities, there was a strange segregation: new immigrants lived in new flats outside the original housing assets, while the – surviving and remaining – original urban population lived in the deteriorating dwellings of the central city, frequently without comfort.

− State housing construction was restricted to large cities. The applied technology – the prefabricated panel construction system – could be economically applied only in mass production. So, most small towns were saved from this technology and preserved their traditional image. But there were some exceptions. In Slovakia, for example, panel technology was applied for housing construction also in smaller cities as well. Some of these towns now look, as if they were surrounded by a high city wall made of 10-storey panel houses.
After the political and economic change in 1990–91, the functions and internal structure of Carpathian cities changed fundamentally:

− Downtown streets and squares have been appreciated. New banks built their headquarters or moved to old valuable but deteriorated buildings after reconstructing them. Business firms occupied the flats in the renewed buildings. Residential use was crowded out by business utilisation because for the owners of dwellings it was more profitable to let their buildings to business firms and move to the green areas. Shops and shopping streets were also renewed and now they offer the international selection of goods.

− At the same time, large housing estates started to deteriorate and loose their former social prestige. They started deteriorate, because they were built in the 1960s and 1970s. Now they are nearing the time when they need to be renovated and neither the technologies, nor the financial resources are available for the renovation. Furthermore, the original problems of the technology come now to the surface: poor isolation, rigid, unchangeable structures, etc. The original dwellers became old or they left these houses. The new dwellers are of lower social status. This situation calls a vicious circle into action which leads to the decline of the social prestige of these estates and accelerates the exchange of the inhabitants. (In the Czech Republic and Slovakia, this downgrading of large housing estates did not happen or only to a much lesser extent.)

− In contrast to the previous period, the population of most Carpathian cities started to decline in the last decade. Practically, population numbers declined in all cities, but the largest cities suffered the largest losses of population: the number of inhabitants of Budapest decreased from 2 million to 1,7 million in 15 years. The population loss of Bucharest is similar. The population decline has several reasons: first, the natural increase is smallest or even negative in the large cities. Equally important is the migration. Suburbanisation accelerated in these countries in the last decades. Well-to-do and middle class people moved to the surrounding suburban area into more agreeable, quieter and healthier environment. On the other hand, many recent unskilled city dwellers, who have lost their jobs in the cities and hoped to earn their living in privatised agriculture, returned to their rural home. Other poorer people, or old pensioners, who could not afford the increasing housing-rents and the charges for urban services, moved also to rural areas. Finally, in the last decade, there was a huge emigration from some Carpathian countries and city inhabitants were mostly affected by this movement. More than 1 million Polish and more than two million Romanian citizens are working in Western European countries and it is also one reason for the decline of urban population. Overly large decline in population may cause serious problems. The per
capita costs of urban communal services may increase on the one hand. On the other hand, incomes of the city from local taxes and fees might decrease. These two tendencies might result in the worsening budgetary balance of cities.

Finally national capitals, metropolitan centres might be the main beneficiaries of system change. During “socialism” they were hermetically isolated from Westernropolises, cut off from the international trends of innovation, fashion, culture and thinking. They were the main losers of the centrally directed socialist system and gradually sank to the level of a grey, provincial city. After the system change, they renewed their European and worldwide connections, they were the main location of international business, banking, commercial firms, FDI was directed mostly to these cities and to their surroundings.

For the whole of the Central European space and for the countries these were good news. For the Carpathian region and for other peripheral regions it was blessing and evil at the same time. The extreme centralisation of the most international and most profitable developments meant that peripheral regions were totally excluded from these developments and they did not enjoy the advantages of the systemic change, they felt, however, its drawbacks. For example, in the 1990s, economic growth was restricted in Romania and Hungary only to the capital regions, all other regions had negative growth rates. All banks in Hungary have their headquarters in the capital city Budapest. For a long time, FDI stopped at the capital cities and did not move further into the peripheral regions. Now that the absorption capacity of capital cities is nearly exhausted, capital looks for other location for investment, but this 15–17 years delay had serious negative consequences in most Carpathian regions.

8.2 Policy recommendations concerning the urban network of the Carpathian area

8.2.1 Establishing a new urban-rural relationship

The establishing of a new urban-rural relationship is one of the main policy aims of the European Spatial Development Perspective (ESDP) approved in 1999, in Potsdam by the ministers of EU member countries responsible for spatial planning and development. But for the Carpathian regions this aim has a special significance and interpretation. This special aspect could not be included into the ESDP, since the Carpathian countries were not EU members in 1999, at the time of the preparation and approval of the ESDP (Figure 11).
The nearly 50 years of “socialist planned economy” created a specific hostile relationship between urban and rural areas. The first reason for it was the absolute priority of industrialisation which was implemented partly through the large scale transfer of resources from rural areas and agriculture to urban areas and industry. The second reason was the extreme centralisation and central distribution and re-distribution of financial and other resources of development. Under these circumstances and given the amount of resources, urban areas could receive more only at the expense of rural areas and rural areas could receive more only at the expense of urban areas. This distributional controversy existed at national level, at regional level and at district level as well. The losers of this controversy were mostly – but not always – the rural areas. But in any case, both parties were always convinced that something had been taken from them, which they had a rightful claim for.

Not only financial resources, but the right to govern them was also taken from several rural settlements. Several villages were organised into one larger adminis-
trative unit. School, administration, and the management of agricultural cooperatives were located in the central settlement and taxes paid by the other villages were mostly used in the central settlement. In many cases, financial support to urban settlements was distributed on a per capita basis. Therefore, many cities, in order to increase their population and through their financial support quota, incorporated several rural settlements in their administrative area. The incremental financial support, gained in that way was utilised and spent, of course, not in the incorporated villages, but in the central city. In Romania, for example, more than 3000 rural settlements have lost their name, identity and independence in this way in 40 years. Some of these mergers were justified, others were not.

After the change of the political and economic system in 1990, a part of these centralising measures were undone. In the Czech Republic, Hungary and Slovakia, all rural settlements (not yet having been incorporated into urban settlements) regained their local government and independence. Each rural settlement has its local government, though these settlements are rather small, more than half of them have less than 500 inhabitants, especially those in the mountains. Financial quotas became the same for urban and rural settlements.

But simultaneously, a new problem emerged. Remembering the bad experience of the past, rural settlements and rural governments were rather unwilling to cooperate with each other, but mainly with the urban centre, to which they formerly belonged and by which they felt themselves formerly “exploited”. At the same time, more and more urban centres regarded themselves also as being “exploited”. Their service facilities (schools, boarding-schools, hostels, urban transport, waste disposal, cultural, health and social facilities) were used not only by city dwellers, but also by people and pupil from the neighbouring villages. Some of them (boarding-schools, hostels) were used exclusively by rural inhabitants.

Furthermore, most small local governments were unable to provide their population with all the necessary services, but they were unwilling to cooperate with other settlements, and especially with towns. According to the new democratic principles, central governments are not entitled to force them to cooperate, to establish common services or to consolidate. New instruments are to be found to establish urban-rural cooperation which fit to the new conditions. These might be:

- to introduce incentives to cooperate (e.g. to offer higher support conditional upon common action);
- to establish the legal regulations for inter-communal facilities as legal entities or juristic persons;
- differentiated support quotas for facilities used by the non-resident population.
- Promotion of contracts between cities and neighbouring settlements on mutual payments for services, offered by the other local government;
– Promotion of common planning and policy for education, health, local transport, labour market and environment.

8.2.2 The role of the chain of “market cities” in the external and internal forelands of the Carpathians and the task of revitalisation of the “market line”

The role of cities in trading goods is essential from the very beginning of the history of urban development. For centuries towns and cities developed around market places where various goods were bought and sold. Clearly different environmental conditions between Carpathian Mountains and surrounding plains had been reflected in different raw materials available and different products made in two neighbouring areas. The need for the exchange different goods created a favourable market niche and numerous market cities developed along foothills of Carpathians.

Moreover long-distance trading routes developed for transport and trading more exclusive goods. Many such routes had followed the foothills of Carpathians or crossed the mountain chain using river valleys and low passes. (E.g. wine trail from Hungary through Slovakia to Poland). Points where such routes crossed offered particularly favourable places for city development. As long as inland transport and communications relayed on the power of rivers and horses relatively dense chains of cities developed along these routes and physical links between cities were usually accompanied with economic links between them. Social and cultural links in turn usually developed as the aftermath of economic links.

The development of industry and modern means of transport i.e. railway and cars in the 19th and 20th centuries significantly changed the settlement network. It stimulated the development of mining areas and transport nodes whereas many other cities lost their importance. Moreover many areas mainly in the foothills of the Carpathians were subjects of state-driven development policies in different periods of relatively recent history. E.g. Hungarian “governmental actions” in North-Eastern Carpathians in the end of 19th century, Polish Central Industrial Region in northern foreland of the Carpathians in 1930-ies, the industrialisation of Slovakia in the period 1950–1980, the rehabilitation plan of the Jiu Valley Region in Romania in 1990s.

After World War II all Carpathian cities and towns had gone through the period of centrally planned economy where the role of market mechanisms in urban development was neglected for the sake authoritarian developmental decisions. However in spite of the same political regime the socialist period has achieved different results in different parts of Carpathians. In some regions individual farming and private ownership of land was preserved (Poland) as well as private sector of economy reduced to farms, craftsmen workshops and small enterprises survived whereas in other regions farms had been collectivised. Moreover some regions
underwent strong developmental pressure as a result of industrialisation, which often brought about significant environmental damages. Simultaneously other regions not designated for industrial development on central level have preserved their relatively untouched natural environment and traditional urban and rural settlement patterns due to the lack of private developmental initiative.

Currently as a result of the above-described processes the settlement network in the Carpathians and their foreland developed in such a way that two chains of urban centres of various size can be distinguished along the external and internal foothills of Carpathian range.


The following cities and towns mark the “internal” line: Bratislava, Trnava, Nitra, Levice, Lucenec, Rimavská Sobota, Miskolc, Eger, Gyöngyös, Kosice, Uzhgorod, Mukaceve, Hust, Bistrita, Targu Mures, Sighisoara, Sibiu, Oradea, Cluj-Napoca, Alba Iulia, Resita.

Many of these cities share now common problems because some of the troublesome heritage of the socialist period i.e. declining industries often environmentally harmful and unable to compete successfully within their own branches in market economy as well as the poor quality of utilities and transport networks.

One should note however that this apparent similarity due to geographical location and common recent political past covers the real variety of environmental, economic and social situations. Moreover easily noticeable on the map linear structures do not necessarily reflect existing economic, cultural, infrastructural links and relations between cities as well as these lines are not the only directions leading towards development. Therefore any actions taken in order to support the development of these settlements should not be limited strictly to those lines.

Currently both chains of cities as well as other cities situated outside the internal and external market lines enjoy democracy and market economy. So the key to the development of local economy remains mainly in the hands of local people their invention creativity and enterprise. Any measures taken on regional, national or international levels can be only supportive measures and cannot replace these indispensable elements of success. The existence in Carpathians of quite well developing areas next to areas of weak economic position without any peculiar natural advantages or deliberate governmental actions confirms this fact. E.g. settlements located in the foothills of Carpathians between Cieszyn and Myślenice in Poland belong to the most prosperous in economic terms in regional or national scale. Moreover in addition to all weak market cities Carpathians have a few brands of products able to compete successfully in the market not due to their traditional
character but due to their high quality and usefulness. It refers not only to Hungarian wine and “Radegast” or “Żywiciel” beer but also to such products as “Malachowski” sleeping bags, furniture from Kalwaria Zebrzydowska or hand made glass from Krosno to mention only some Polish examples.

While companies more or less successfully struggle in the market, democratic city authorities are free to join their forces along the above drawn “market lines” as well as across them or in any other configuration in order to enhance the development chances of their cities. Therefore there is no single remedy for all the problems of the Carpathian chains of market cities and only the following general suggestions concerning their potential revitalisation policies can be formulated:

− The development of public utilities with special emphasis on the development of sewerage system proportionally to the development of water supply systems in order to improve the quality of life and in order to reduce the adverse environmental impact of settlements,

− The improvement of accessibility by means of integrated approach to the development of all kinds of public and private transport (roads, railways, plains) and all kinds of movement (by foot, bikes, ski or horse). Priority should be given to cross-Carpathian north-south directions. Special emphasis should be put on places and actions where relatively small investments may bring significant improvement in short- and long-distance mobility (e.g. the reconstruction of the railway between Nowy Targ and Trstenica or the co-ordination of bus timetables on opposite sides of border crossings; enabling crossing the Ukrainian border on foot in higher parts of Carpathians.).

− Formal networking of cities using various legal forms in order to promote jointly cities, regions and their products.

− Development of intensive suburban agriculture in the surroundings of cities.

− More attention to Carpathian success stories in the domain of economic development initiative stressing not so much on repeatable but rather inspiring for originality.

Obviously, the original market chain function cannot be reconstructed. The forms of trade and transport have changed. Production technologies and consumption habits have also changed.

Nevertheless, some elements of this function – even if in changed forms – can be re-established:

− New and modernized market places for primary producers with quality controls, near to the centres of the cities (which can serve also as tourist spots, like the Budapest Central Marker Hall);

− Improving transport conditions between cities and mountain settlements. Regular public transport on market days to cities and back
− Improving transport between the market-chain cities
− Commercial houses and special shops for protected mountain food products;
− Food processing plants for mountain products;
− Special restaurants with local foods;
− Networking between Carpathian market chain cities. Exchange of information, common actions, fairs and safeguarding of common interests.

8.2.3 The future of the EU and the Carpathian cities

On the 21st of December 2007 Poland, the Czech Republic, Slovakia and Hungary joined the Schengen agreement on abolishing border control on the internal borders of the EU. After a few years, Romania will join the Schengen zone. Between 2010 and 2014 all Carpathian EU member states will introduce the Euro as their own currency. All derogations concerning the application of EU regulations will expire until 2011–14. There will be substantial progress in the field of the harmonisation of taxation and regulations in the EU member states.

These developments, the full accession of the Carpathian countries into the single economic space of the EU will bring about fundamental changes in the situation and functions of Carpathian cities. What happened in the old member states in 50 years will take place in the new member states in 7–10 years. The question is, to what extent these countries are prepared for these changes:

− State borders, as hindrances of the movement of people and of economic relations will totally disappear and cities will have to face a borderless economic and social space in their surroundings. Cities on the borders will be either the winners or the losers of this situation. Winners, if they can extend their attraction area beyond the borders, losers if they have to yield their former attraction area to a competitor city on the other side of the border. The rearrangement of the attraction areas will take place not exclusively on the basis of distances. Accessibility, the quality and price of services will also play a role in this process. Some kind of competition existed already among cities on the two sides of the border, but borders and the difficulties accompanying the crossing of borders gave a protection against rearrangement. This protection will disappear in the near future.

− Winners and losers cannot be defined unambiguously in this process. Maybe, one city is winner in one respect and “loser” in others. For example, it can be seen already in the Banat area, that Timisoara, Romania became the trans-border winner in business attraction, While Szeged, Hungary became the trans-border winner in health and educational services.

− Accessibility plays a very important role in the competition of cities. It is a general experience that cities without motorway access have substantially
less chance for FDI investment than cities which have motorway access. But, in recent time, airports play a similarly important role. Cities which can be accessed by regular international flights have a huge advantage compared to cities which have not (the competition between Timisoara and Szeged was, in fact, decided by the international accessibility of Timisoara airport). Furthermore, it is already a general experience that the majority of people of the Carpathian countries do not choose unconditionally their national airports, but the airport being closer to their place of residence: people from the Western regions of Romania and from the Eastern regions of Slovakia choose the Budapest airport, people from the Western regions of Hungary choose the Vienna or Bratislava airport, many Slovaks choose Prague and many Czechs Bratislava airport. Cheap airlines quickly adjust their flight plans to the changing demands in the area.

Another important feature of trans-border city competition is that its outcome is ever less dependant of national level conditions and regulations but more and more the outcome of local policies and regulations. The EU-wide harmonisation of taxation and support policies allows less and less deviations in national taxation and support policies. Nevertheless, cities are in the position, to offer land, special services, acceptable environment and less bureaucracy to potential investors. In finding the location of future investments the role of national governments will decrease while the role of city governments will increase.

There are cities in the Carpathian region which were divided by the changing state borders. Examples are Cesky Tesin (CZ) – Cieszyn (PL), Komarno (SK) – Komárom (HU), Esztergom (HU) – Sturovo (SK), Sátoraljaújhely (HU) – Slovenské Nové Mesto (SK). With the entrance into the Schengen zone, it became possible to reunite, virtually these cities. They can extend their attraction area and provide more, better and diversified services to their population.

This virtual reunification process – obviously, has its difficulties. For example, the local government leaders of Slovenské Nové Mesto (the Slovakian part of the former city Sátoraljaújhely) decided not to open the street, connecting the two parts of the city for car traffic. The explanation was that car traffic would increase air pollution and noise in the streets which were – in the old border regime – closed for car traffic. It might be true, but on the basis of this argumentation car traffic could be banned from all streets of the World. As a consequence of this decision, car drivers have to make a roundtrip, outside the city to the old border station, to get to the other half of the city. What has been achieved in Schengen, can be reversed by local bureaucrats.

It is not yet clear, how this rearrangement among Carpathian cities will take place in the future. But it is clear, that it will affect the urban network and hierarchy substantially.
9 Cultural and natural heritage in the Carpathian region

9.1 The situation and problems

9.1.1 Cultural heritage

The cultural heritage of the Carpathian area represents a unique composition within Europe:

− This region is the most Eastern part of Europe, where the monuments of the Western European Romanesque, Gothic and Renaissance art can be found. The medieval Polish and Hungarian kingdoms were Roman Catholic states and church architecture followed the Western patterns. But not only church art, but secular architecture and art also followed these artistic styles. German and other Western emigrants have founded cities in this area, importing the artistic styles of their home countries. It was then taken over by the native aristocrats and well-to-do citizens as well. Brasov, Sibiu, Alba Julia and Sighisoara are the easternmost examples of Romanesque and Gothic architecture. Lviv, Zamość and Kaźimierz are the easternmost examples of Renaissance architecture.

− On the other hand, this is the most Western area of Europe, where the monuments and art of Eastern Christianity are also present. In some parts of Romania and Ukraine one can find a marvellous co-existence or even mixture of the two artistic and architectural Worlds.

− Finally, the Carpathian area is the part of Europe where the monuments of European folk art and architecture have been preserved the most intact. Mountain people are everywhere more inclined to be engaged in the preparation of local handicraft products and to build artistically decorated houses. On the one hand, they are compelled to complete their income through the selling of handicraft (wooden, textile) objects because income from agricultural activity was not enough for survival. On the other hand, they had more time, and their environment was more inspiring for artistic activity, than on the plains. Furthermore, the Carpathian settlements were rather isolated from the outside world, to preserve their customs and traditions. Not only the tangible, but also the intangible cultural heritage (music, songs, dances, fairy tales) are protected parts of the cultural heritage of the Carpathians.

These three strands of cultural heritage are equally present in the Carpathian area, and they together determine the respective policies of the countries and of the area as a whole.
The respective institutions of the management of the cultural heritage have been established in all Carpathian countries already at the beginning of the 20th century. Most of them have taken over the Austrian legislation, since most Carpathian regions belonged at that time to the Habsburg Monarchy. This legislation gave priority to the methods of art history. The selection of protected heritage was exclusively the work of art historians. Such relations lasted very long, even after the Second World War until the 1970’s. It was not earlier than in the third part of the 20th century that the so called vernacular architecture in rural regions and “anonymous” architecture in urban structures became part of protected cultural heritage. But change is rather slow. It can be truly stated that the system of protection of architectural heritage in many Carpathian countries and regions is still too strongly connected to its origins (from the time of the Austro–Hungarian Monarchy) and it is not enough developed in the sense of modern theory, methodology and aims of European trends.

The other “heritage” of the management of cultural heritage stems from the “socialist” period. In this period the political system provided a centralised managing power to act for the preservation of historic heritage in the name of “common interest”. Architects and managers did not have to care about efficiency, utilisation and the participation of private sector.

The democratic changes in 1989–1990 have brought completely different possibilities for the society – and for the management of historic cultural heritage from this time. Both urban planning and conservation became multilayered, and former centrally managed societies had to realise that decision-making involves more stakeholders, different interests and new techniques.

As a part of these changes, the earlier “academic” aims to protect only the most artistic part of built heritage has been fundamentally changed. The new economic criteria, the new technologies, and the demand to integrate built heritage into the everyday human environment have substantially changed the former approaches. Cultural – and within it architectural – heritage has been transformed from an object of symbolic or even ideological values, to an organic part of towns, landscapes, even regions.

Such changes certainly demand new methods of assessment and utilisation. Historical architectural heritage should have become an organic part of regional and urban planning, new methods of utilisation and re-utilisation are needed. New principles, new methods and new possibilities have to be put forward, involving not only politicians and experts, but investors, individual users and the general public as well.
9.1.2 Natural heritage

Obviously, the main object of natural heritage management in the Carpathian region is the mountain range of the Carpathians. Mountain ranges, flood areas of rivers and sea coastal areas are – generally – the main objects of natural conservation and management, because these are the areas, where natural habitats could survive with the highest probability.

Carpathian countries – like in the case of the cultural heritage – have established their institutions and regulations of natural conservation and most of them have taken over the respective guidelines and regulations of the UN and of the European Union. The result of these activities, nevertheless, is rather differentiated.

The countries can be divided into two groups. Austria, the Czech Republic, Poland and Slovakia declared more than 15 percent of their territory to be protected. This percentage corresponds to the level of developed European countries. In Hungary, Romania and in Ukraine this percentage is substantially lower. In the case of Hungary and Ukraine, it can be partly explained by the fact that the large part of these two countries is a plain used for agricultural production.

More characteristic is the distribution of protected areas according to the level of protection (Table 5).

Table 5

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of protected objects</th>
<th>Area of the country, km²</th>
<th>Protected area, km²</th>
<th>Share of protected area, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1,087</td>
<td>83,860</td>
<td>23,475</td>
<td>27.94</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>1,768</td>
<td>78,870</td>
<td>12,451</td>
<td>15.79</td>
</tr>
<tr>
<td>Hungary</td>
<td>236</td>
<td>93,030</td>
<td>8,299</td>
<td>8.92</td>
</tr>
<tr>
<td>Poland</td>
<td>1,822</td>
<td>333,882</td>
<td>90,526</td>
<td>27.11</td>
</tr>
<tr>
<td>Romania</td>
<td>931</td>
<td>238,610</td>
<td>12,360</td>
<td>5.18</td>
</tr>
<tr>
<td>Slovakia</td>
<td>1,176</td>
<td>49,010</td>
<td>12,347</td>
<td>25.19</td>
</tr>
<tr>
<td>Ukraine</td>
<td>5,198</td>
<td>657,630</td>
<td>22,468</td>
<td>3.42</td>
</tr>
</tbody>
</table>

Source: Collected by the author.

While the share of protected area is relatively smaller in Hungary, Romania and in Ukraine, the larger part of it enjoys the highest level of protection. These countries have much more and larger national parks and much less of lower ranked natural protection areas. These countries started their natural protection programmes by designating their national parks, while the designation of more per-
missive protected landscape areas and their regulation followed only later. In some of the large National Parks there is intensive economic, agricultural and animal husbandry activity. Conservation and economic objectives are together present and their priorities are rather ambiguously defined. In some National Parks there is intensive wood cutting activity. In other parks, there is large scale animal husbandry. In order to feed the animals, meadows are cut down, and there is a serious danger to destroy rare species and the nests of rare birds. Government support to these large National Parks is insufficient and Park managements try to achieve income from agricultural activity, sometimes at the expense of conservation objectives. Transitional provisions between absolute and full protection and absolute profit making activity are not satisfactorily regulated and that is frequently a source of conflict. In the Western countries, on the overwhelming part of the protected area, some economic activities are allowed which is in harmony with the objectives of the protection. In the Carpathian countries this “co-habitation” is not yet working adequately (Table 6, Figure 12).

Europe is particularly rich in cultural landscapes which are formed by various combinations of human and natural factors and illustrate the evolution of human society, its settlements, and their interaction with nature in time and space. They acquired socially and culturally recognised values, because of the simultaneous presence of natural values and of remains reflecting skills or distinctive traditions. The combined protection of natural environment and human activity is the insufficiently elaborated element of the protection regulations of some Carpathian countries. That is the source of most problems and conflicts which arose in the last years concerning protected areas.

Table 6

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of national parks</th>
<th>Of which: in the Carpathian area</th>
<th>Area of national parks km²</th>
<th>Of which: in the Carpathian area</th>
<th>Share of national parks in the protected area, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>6</td>
<td>3</td>
<td>2,356</td>
<td>403</td>
<td>10.0</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>4</td>
<td>1</td>
<td>1,372</td>
<td>79</td>
<td>11.0</td>
</tr>
<tr>
<td>Hungary</td>
<td>10</td>
<td>6</td>
<td>4,817</td>
<td>2,296</td>
<td>58.0</td>
</tr>
<tr>
<td>Poland</td>
<td>23</td>
<td>7</td>
<td>2,983</td>
<td>852</td>
<td>3.3</td>
</tr>
<tr>
<td>Romania</td>
<td>13</td>
<td>12</td>
<td>8,848</td>
<td>3,047</td>
<td>72.0</td>
</tr>
<tr>
<td>Slovakia</td>
<td>9</td>
<td>9</td>
<td>3,178</td>
<td>3,178</td>
<td>26.0</td>
</tr>
<tr>
<td>Ukraine</td>
<td>30</td>
<td>9</td>
<td>19,091</td>
<td>5,214</td>
<td>85.0</td>
</tr>
<tr>
<td>Carpathian region</td>
<td>47</td>
<td></td>
<td>15,069</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Collected by the author.
Figure 12

*National Parks in the Carpathians*

**Legend:**
- Austria: (1) Thayatal; (2) Donau-Auen; (3) Neusiedler See.
- Czech Republic: (1) Podyji.
- Hungary: (1) Aggtelek; (2) Bükk; (3) Duna–Ipoly; (4) Hortobágy; (5) Körös–Maros; (6) Fertő–Hanság.
- Poland: (1) Babia Góra; (2) Gorcze; (3) Pieninski; (4) Magura; (5) Bieszczady; (6) Ojcow; (7) Swietokrzyski.
- Romania: (1) Munții Apuseni; (2) Munții Maramureșului; (3) Calimani; (4) Ceaiul; (5) Chelii Bicazului-Hășmaș; (6) Cenck; (7) Bucegi; (8) Piatra Craiului; (9) Cozia; (10) Gradiste-Munceilului-Cioclovina; (11) Rețeaz; (12) Domogled-Valea; (13) Semenic; (14) Chelii Nerei Beusnita; (15) Portule de Fier; (16) Rodna.
- Slovakia: (1) Low Fatra; (2) Tatra; (3) Low Tatra; (4) Muranska Planina; (5) Slovak Paradise; (6) Poloniny; (7) Highs Fatra; (8) Slovak Karst; (9) Pieniny (Pieninsky).
- Ukraine: (1) Ung; (2) Sinver.

*Source:* Author’s edition.
The first one concerns the privatisation of some areas. In the period, when agricultural land was collectivised, some parts of the area have been declared to be a nature conservation area. Their retirement from cultivation was not a problem for the collective farm, since these protected areas represented only a very small fraction of their cultivated area. During re-privatisation, these areas were given back to the original owner. For him/her, however, it was a very serious problem, because he (she) could not afford, not to turn these areas into arable land or intensively used pasture or meadow. So, a conflict arose between natural protection and the basic interests of the new individual farmers. It happened in most countries where the re-privatisation of agricultural land took place, but the solutions were different. In some countries farmers received compensation; in other countries – like Hungary – the government was forced to purchase back these areas.

The other conflict and controversy emerged in the Tatra, after the catastrophic wind-storm in November 2004. The wind-storm devastated 12,600 ha forest, threw down 2.5 million cubic metres of wood. The trees thrown down were in overwhelming majority spruces, planted more recently. Most of the area had been quickly cleared from the thrown down trees, but in the Tatra National Park, mainly in its Western part a serious conflict arose between environmentalists and forestry organisations, especially in the Tichá and Koprová valleys. Environmentalists blocked the clearing of the area from the thrown down trees, because they wanted to prove that the original non-planted trees (spruce, larch-tree, fir-tree and beech-tree) survived much better the wind-storm, than planted spruces. Foresters said that the invasion of a type of wood-borer worms, the Ips typographus which invaded the thrown down trees will invade soon the intact trees as well and will cause a much larger damage. The conflict between environmentalists and foresters is not yet settled which could endanger already the promised EU support to Slovakia to reconstruct the Tatra forests and damages caused by the wind-storm.

9.2 Policy recommendations concerning some specific problems of the cultural heritage in the Carpathian area

9.2.1 National bias in the management of cultural heritage

A specific feature of the Carpathian area is that there are several areas inhabited by more than one nationality with distinctive cultural heritage and there are areas which were inhabited in the past by national and religious groups which do not live there any more. Several churches, synagogues, monuments and buildings became victims of national ideologies. These ideologies promoted and cared for the protection of national cultural heritage supporting their interpretation of national history, and neglected those elements of cultural heritage, which did not fit into this conception. Therefore, in all countries of the region legal and professional arrangements are needed to preserve the respect for and memory of all nations and nationalities, language and religious groups, which created a specific cultural heritage.

In the Carpathian region deliberate destruction of cultural heritage – experienced in the Balkan wars – did not occur. But some bias in favour of national heritage occurred. UNESCO World Cultural Heritage nominations serve for it as an example (Figure 13).
Figure 13

The World Cultural Heritage Sites of the Carpathians


Source: Author’s construction, UNESCO.
− There are 36 registered UNESCO World Heritage items in the Carpathian area;
− Poland signed the agreement with the UNESCO in 1976. Until 1997 no heritage site was
  nominated in the New territories, belonging formerly to Germany
− Romania signed the agreement in 1990. The first Saxonian city, Sighisoara was nominated in
  1999.
− A large part of Ukraine’s valuable architectural heritage – the countries only renaissance castles,
  palaces are in the Carpathian area which was part of Poland, Austria and Hungary at that time.
  So far only the inner city of Lviv is nominated.
− The Carpathian area had 4 million Jewish inhabitants before World War II. No Jewish quarters
  or buildings (synagogues) are nominated so far from the region.5

After 1999, this attitude changed significantly and more nominations were made from the formerly
neglected types of heritage.

9.2.2 The “heritage” of the socialist period

Carpathian countries face now the problem how to treat the “cultural heritage” of
the socialist era. A lot of buildings and monuments were created during this period
of four-five decades, which are now marking the view and skyline of many cities
and settlements. Many of the most provoking monuments, symbolising the old
system, had been already removed. It is, however, important, not to commit again
the mistakes of the past. The recent architectural and cultural heritage should be
reconsidered only from aesthetic and practical, not from ideological point of view.
It has to be preserved what is worth to preserve, because – willing or not willing –
it became part of the respective nation’s historical heritage.

9.2.3 Military cemeteries and monuments of World War I. and II.

In 1914–17 the Carpathian region was the scene of some of the largest and most
fierce and desperate battles of World War I. (Gorlice, Limanova, Przemysl,
Kolomea, Chernivtsi). On the Galician and Romanian fronts nearly 2 million
soldiers died. These soldiers came from 26 present countries and nations. Their
graves, however – in contrast to other battle-fields – are not cared for, many of
them are not even marked.

It may sound strange, but these battle-fields and cemeteries also belong to the
historical heritage and historical monuments of Europe. In the other battle-fields of
World War I this fact is long ago recognized. The battle-fields of Flanders, Artois
and Champagne are marked by beautiful flower gardens, visitor centres and trench-
museums. The situation is similar in Italy, in the battle-fields of the Dolomites.
Even in Turkey, near to Gallipoli, Dardanelles, the graveyards of British,

5 The Jewish Quarter of Třebíč in the Czech Republic is registered as World Heritage, but it is outside
the Carpathian area in the region of Vysocina.
Australian and, New Zealander and Turkish soldiers are carefully maintained and visitor centres erected. Great numbers of visitors are visiting these cemeteries everywhere. In the Carpathian area, however, all these monuments and facilities are missing. The new states, emerging after World War I in these areas, felt neither obligation to, nor interest in caring for the military cemeteries of that war. There are a few committed amateur historians in Polish-Carpathian cities, which are making efforts to identify, map and mark the military cemeteries.

To establish these war memorials would require the common action of the Carpathian counties, Austria, Germany and Russia. It would be a symbolic action at the beginning of the 21st century, in honour of those who lost their lives in a senseless war at the beginning of the 20th century, just a century ago.

7–8 million soldiers fought in the Galician and Romanian Fronts in 1914–17, and 2 million have lost their life there. Today, minimum 50-60 million descendants of these fighters live in Europe.

9.2.4 Sites of pilgrimage in the Carpathian area

The majority of the inhabitants of the Carpathian area are Christians, and a large part of them are strong believers. Beside Ireland, the largest share of church-going people can be found in Poland, Slovakia and Romania in Europe. Among the Czechs and Hungarians the share of church-going people is lower.

The number of pilgrimage sites is very high in the Carpathian area. Only in the Carpathian Basin, that means within the mountain range of the Carpathians, there are more than 400 pilgrimage places. In the whole Carpathian area their number is about 700. Obviously, the overwhelming part of them are small and only of local significance. There are 50–60 which have national significance and there are 10–15 which are of international significance (Figure 14).

The pilgrimage site is mostly a church, a chapel or a spring with or without a cabin. The ground of the pilgrimage is that at that place Maria or Jesus appeared to somebody and concomitantly some miracles happened there.

In the socialist period, the communist state tolerated pilgrimage and the sites of pilgrimage, but did not do anything to facilitate pilgrimage, to improve access and transport to these sites, and to create accommodation, hygienic conditions to stay there.

In most sites the conditions did not change substantially so far. Hygienic conditions are unacceptable even on normal days, not speaking of religious holidays, when hundred thousands are gathering at the most famous places. Pilgrimage can be regarded in these countries as the largest tourism movement and support – including EU Structural Funds support – should be allocated accordingly to create acceptable conditions in the 21st century.
Figure 14

*Pilgrimage sites in the Carpathian area*

Legend: Poland: (1) Czestochowa; (2) “Pilgrims Park” Kalvaria Zebrzydowska; (3) Wadowice (the birthplace of pope John Paul II); (4) Łagiewniki, Krakow. Czech Republic: (1) Guty; (2) Frydek-Mistek; (3) Kunětice; (4) Hostin; (5) Kroměřič; (6) Křtiny; (7) Brno. Slovakia: (1) Nitra; (2) Banská Bistrica; (3) Levoča Mariantka; (4) Rajecka Lesná; (5) Staré Hory; (6) Bratislava; (7) Košice; (8) L’utina; (9) Šaštín; (10) Turzovka. Hungary: (1) Máriapócs (Greek Catholic Basilica); (2) Máriaremete; (3) Márianosztr; (4) Bélapátfalva. Romania: (1) Humor; (2) Voronet; (3) Moldovita; (4) Sucevita; (5) Neamt; (6) Secu; (7) Agapia; (8) Sihatria; (9) Varatec; (10) Bistrita; (11) Şuamuleu Ciuc/Csíksomlyó; (12) Moisei; (13) Bogdan Voda; (14) Rozavlea; (15) Barsana; (16) Sinaia; (17) Curtea de Arges; (18) Cozia; (19) Hurezi. Ukraine: (1) Univ; (2) Krekhiv; (3) Lviv; (4) Hrushiv; (5) Hoshiv.

*Source:* Author’s construction.
The most famous and the most frequented pilgrimage site in the Carpathian region is the Jasna Góra monastery in Czestochowa, Poland. More recent and less famous is the “Pilgrims Park” Kalvaria Zebrzydowska (UNESCO World Heritage), but already attracts large masses of pilgrims. Important sites of pilgrimage in Carpathian Poland are Wadowice (the birthplace of pope John Paul II), Łagiewniki in Cracow.

In the Czech Carpathian region more significant sites of pilgrimage are: Svatý Hostin, Velehrad, Svatý Kopeček, Zlaté Hory and Křtiny.

In Slovakia, the main (national) pilgrimage places are Nitra, Banská Bistrica, Levoča Marianka, Rajecka Lesná, Staré Hory, L’utina, Šaštín, Turzovka.

In the Hungarian Carpathian region the most famous pilgrimage site is Máriapócs (Greek Catholic Basilica), Máriaremete, Márianosztra, Bélapátfalva

In Romania, orthodox monasteries can be regarded as the main pilgrimage destinations. There are four main concentration areas of these pilgrimage monasteries: the monasteries of Bucovina (Humor, Voronet, Moldovita, Sucevita), Neamț region (Neamț, Secu, Vovidenia, Agapia, Sihatria, Varatec), the valley of the river Olt (Hurezi, Curtea de Arges, Cozia, Bistrita, Sinaia) and Maramures (Moisei, Bogdan Voda, Rozavlea, Barsana). The main pilgrimage place of Hungarians in Romania is the church and monastery in Csíksomlyó (Șumuleu Ciuc).

The main pilgrimage sites in the Carpathian Ukraine are: Univ, Krekhiv, Lviv, Hrushiv, Hoshiv and Prylbichi.

9.2.5 Recommendations for the management of the natural heritage

− The network of National Parks and of other forms of high level protection can be regarded as established. Further extension of these network is not recommended, even in a few cases the territory of the National Park may be somewhat reduced.

− Areas with somewhat more permissive regulations must be extended. Especially protected landscapes, where human activities and natural processes are in harmony.

− Regulations between the two types of protection should be clearly differentiated. In National Parks, they should be made – in some sense – stricter (for example: areas belonging to a national park should not be allowed to be privatised). In the other protected areas, human economic activity should be allowed but carefully regulated. Especially, the exploitation of forests and meadows in protected areas should be regulated more carefully and in a differentiated way;
There are several national parks and other protected areas which are situated on the two sides of the state borders. Some of these areas are:

- Thaya-Podíyí (AT–CZ)
- Neusiedlersee-Fertő (AT–HU)
- Tatranský-Tatranski (SK–PL)
- Pieniny-Pieninski (SK–PL)
- Roztoczanski-Roztochya (PL–UA)
- Aggtelek-Slovak Karst (HU–SK)
- Podilski Tovtry-Rodna (Ukraine–Romania)
- Skolivsky Beskydy-Bieszczadzki (UA–PL)

Some of them are already regarded as a single and common protected area, others are rather parallel organisations with insufficient coordination. But common actions and harmonisation of regulations are everywhere desirable.
10 Transport in the Carpathian Area

10.1 Situation and problems

The Carpathian region’s transport has been affected by the changes of the political and economic system in the following ways and intensity:

- Of the main railway lines and roads the overwhelming part of resources has been allocated to the development of international corridors (Helsinki/PEN/TEN and partly TINA) (Figure 15).

- The Bratislava–Zilina–Košice section of the 5/a corridor is under preparation. A motorway has been built from Bratislava until Zilina in the Valley of River Vah and the section between Low-Tatra and High-Tatra (with a tunnel in Branisko) will also be completed soon. A significant progress has been made on the railway line of the same direction (some of its parts are suitable for maintaining a speed of 140–160 km/h. The line is electrified with double tracks) and the intercity train service between the two biggest cities of Slovakia has intensive passenger traffic.

The 4th corridor between Berlin and Istanbul connects Germany with one of its biggest market and labour force source in Europe. Two parts of this corridor are crossing the Carpathian region. On the Bratislava–Komárno–Budapest railway section the quasi high-speed train service can be introduced in 2007 and some sections of the Bratislava–Nitra–Zvolen dual carriageway have already been completed.

The other planned part of the corridor is crossing South-Transylvania (along the Maros Valley) through the South-Carpathians reaching the Black Sea at Constanta. The motorway is crossing the Carpathians at Turnu Rosu while the corridor railway line at Predeal Pass. The Romanian section of the 4th corridor is under preparation and its railway line is undergoing a partial modernisation.

The M3 motorway in Northern Hungary is a part of the 5th corridor. It has practically been completed until Debrecen/Nyíregyháza area and its continuation towards Carpathian-Ukraine is in planning process. Although there have been declarations on building it further until Kiev, it is doubtful whether this project can be completed.

The Danube waterway is the 7th corridor but its navigation with ships above the capacity of EU economical threshold value (1350–0500 tons) called “European” ships is quite problematic on the Bratislava–Vác–Budapest section due to the low water level in the end-summer and autumn seasons. Although maintaining the continuity of navigation on the Slovakian–Austrian, Slovakian–Hungarian, Hungarian and Romanian Bulgarian river sections is a priority task of EU Quick Start Programme no major steps have been done so far for the achievement of this target.
Figure 15

_Helsinki corridors and EU priority projects in the Carpathian area_

The primary mission of corridors is providing quick transport facilities between capital cities/big economic centres (e.g. on Prague–Bratislava–Budapest–Trieste route) therefore they are serving as means for internal cohesion within the European Union as a complex system of transportation facilities providing quick access in several sub-sectors.

There are big differences in the completion stage of these corridors which is mostly depending on the degree of their funding. There have been spectacular improvements in those projects that had received heavy sums funded from national resources and loans for implementation. (Until 2004 the EU funded the costs of preparatory plans, feasibility studies, environmental impact assessments, and the guarantee interest sums of loans having been disbursed by the banks of the Euro-
pean Community. However, in the future, EU member countries may receive more significant EU grants (e.g. from Cohesion Fund).

The territorial impacts of these corridors are rather ambivalent:

These corridors are significantly contributing to the increase of the flow of goods and labour force (and indirectly they are accelerating information and capital flow as well). At the same time, they have a strong attractive force in their hinterlands generating effects of exhaustion. Along the corridors, several new plants of innovative industries and services are built with logistic and distribution centres, attracting the potential labour force of the skilled young generation from their hinterland. Agricultural production segments in their neighbourhood are producing high quality, transport intensive, valuable products (greenhouse flower and fresh vegetable farming, biotechnology based knowledge intensive production methods etc.). On the other hand, what remains in the peripheral areas of corridors, it is ageing population, critically high rate of unskilled labour force. The outmigration of qualified population will accelerate demographic erosion both in quantitative and qualitative aspects.

The air traffic centres of the Carpathian region, the big airports of capital cities are located at the edge or outside the region (Vienna-Schwechat with an annual passenger traffic of 17 million, Prague with 11 million, Budapest with 8 million, Bucharest with 3 million, Belgrade with 1.8 million, Bratislava with 1.5 million. Out of regional airports, the passenger traffic of Krakow and Katowice are exceeding the figure of 1 million. The annual air passenger traffic of Timisoara belongs into the category of 0.5–1.0 million, while of Košice and Cluj-Napoca (and Constanta) into the 0.3–0.4 million. The annual air passenger traffic of the remaining airports (Tirgu Mures, Oradea, Satu Mare, Sibiu, Bacau, Jassi, Suceava, Debrecen, Užgorod, Cernovitz, Posten, Sliac, Poprad-Tatry, Rzesov) is below 0.2 million (the majority has some ten thousands only annually). A growing number of regional airports are running international air services beyond the domestic ones (mostly in the summer tourist seasons by charter flights carrying tourists into the holiday resorts of the Mediterranean region).

Crossing the Carpathians today ...

Development of the transport systems (highways, main roads, railways…) that cross the Carpathians could be, on one hand, of great importance for the economical growth of the new countries of the European Union and, on the other hand, a good opportunity for bettering security on Carpathian roads and for making easier to reach areas of tourist or natural interest. In fact, diverting international trade transports on the new highways of TEN Corridors could dramatically reduce traffic on the other roads, with great advantage for local and tourist traffic, particularly in the mountainous districts.

By road ...

Two major Corridors (number 5: line Bratislava–Zilina–Lviv, and number 6 lines Katowice–Bielko Biała–Zilina and Katowice–Ostrava–Brno) cross the Carpathians, while other two Corri-
dors lie respectively in the northern (number 3: line Katowice–Krakow–Lviv) and in the southern part of the region (number 4: a line almost entirely crossing the Romanian territories of Timisoara, Sibiu and Bucharest). They are multimodal Corridors, and the modal split is favourable to roads, along which about 70% of goods are transported.

In these Corridors technical characteristics and quality of facilities of roads are changing from a tract to another. In fact, in a single road there are tracts that have the characteristics of an highway (two roadways with two/three lanes for each direction) and tracts in which there are only one roadway, with one lane for each direction.

On a working day about 20,000–25,000 vehicles run, in the two directions, on the roads of the two main Corridors, particularly along the lines Katowice–Bielsko–Biala–Zilina and Katowice–Ostrava–Brno. About 20–40% of the total traffic is freight traffic. The Romanian trans-Carpathian Corridor (route E 60: Oradea–Julia–Sibiu–Pitesti) is crossed by 15,000 vehicles per day. About 25% of the total traffic is freight traffic (see: Sectia Traffic, 2006).

This traffic runs on roads that mostly have only one lane for each direction (each 8–9 meters wide), that cross numerous villages and towns and it is not only long-distance freight traffic but also local and tourist traffic. A fact, clearly, that causes heavy problems to people living in the area.

Freight traffic along Corridors 5 and 6 is progressively increasing as a consequence of the increased industrialization (in large part due to automobile industries: FIAT, GM, Toyota, PSA) of the Ostrava–Zilina–Bielsko Biala area. This forces to plan the construction of infrastructures adequate to the increasing traffic, especially in the north-east/south-west directions.

Even if there is less traffic than in Corridors 5 and 6, the same problems exist for Corridor 4, that connects Budapest with Constance (Black Sea) crossing the mountainous area of Hunedoara, Sebes and Sibiu. These roads are absolutely inadequate to the traffic needs and have a high level of car accidents.

In consideration of these problems and in order to ameliorate the situation of the traffic, works are presently in progress on the two more important Corridors, number 5 and 6. They consist of the completion of the highway Povaska–Milowka, line Bratislava–Zilina–Bielsko Biala, and of the completion of the highways Zilina–Liskova and Vazec–Presov (in the Carpathian territory of Slovakia) and Uzhorod–Kosice (in the Ukrainian–Slovak area).

Completing these traffic systems will reduce also the traffic on the nearest (very crowded) roads as well as that of other important roads, like the Cadca–Bystrice tract, route E75, on the Czech–Slovak pass.

Unfortunately, frequently the new highways appear to be highly disfiguring the natural scenery, particularly in the areas of Breskydy Morava (Skalite), Javorniky (Bytca) and to the south of Tatra Park.

By rail...

The most important Trans-European corridors include the major railways. At present, railways play an important role in the modal split of passenger and freight traffic, with mean quotas larger than those, for example, of the railway lines that cross the Alps.

The more important role played by railways in the Carpathian traffic is a consequence of the social and productive shape of the region and of the inheritance of the collectivism, typical for the socialist countries. The new political order in the Carpathians and the opening to the market is producing an increase in freight and passenger traffic and, as a consequence, an increased importance of road systems. However, still 30% of freight and passenger transport in the Carpathian area is railway transport, an important quota if one considers the low quality of trains, railway stations and so on. But passenger transport has a good standard of punctuality and reliability, especially on double track lines at the border between Poland, Slovakia and Czech Republic (Trencin–Olomouc, Zilina–Cesky Tesin) or on the Ukrainian line Turka–Veliky–Berenznyj–Uzhorod.
The necessity of a modal integration of transport systems, and the aim of privileging the long distance railway transport, has caused a relevant multiplication of railway lines connected with the newly industrialized areas and of inter-modal terminals in the Carpathian area. Consequently, some railway stations near Carpathian mountain passes are gaining strategic importance for the distribution of goods in the railway network. This fact, however, in many stations, for example that of Skalite, line Zilina–Bielsko Biala, causes problems in passengers conveyance.

### 10.1.1 The main transport indicators of Carpathian countries

There are substantial differences among Carpathian countries in respect to transport infrastructure and transport performance. Nevertheless, there is a common feature: with the exception of Austria, all have to make serious efforts to comply with the European standards (Table 7–10).

#### Table 7

<table>
<thead>
<tr>
<th>Country</th>
<th>Length of motorways km 2003</th>
<th>per 1000 inhabitants</th>
<th>per 1000 km²</th>
<th>Length of other roads km</th>
<th>per 1000 inhabitants</th>
<th>per km²</th>
<th>of which: state roads</th>
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<td>1.25</td>
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<td>0.0507</td>
<td>6.57</td>
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<td>12.46</td>
<td>1.61</td>
<td>54,929</td>
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<td>Hungary</td>
<td>542</td>
<td>0.0536</td>
<td>5.83</td>
<td>160,215</td>
<td>15.84</td>
<td>1.72</td>
<td>30,536</td>
</tr>
<tr>
<td>Poland</td>
<td>405</td>
<td>0.0106</td>
<td>1.30</td>
<td>377,289</td>
<td>9.88</td>
<td>1.21</td>
<td>18,253</td>
</tr>
<tr>
<td>Romania</td>
<td>113</td>
<td>0.0052</td>
<td>0.47</td>
<td>73,061</td>
<td>3.37</td>
<td>0.31</td>
<td>9,182</td>
</tr>
<tr>
<td>Slovakia</td>
<td>313</td>
<td>0.0582</td>
<td>6.38</td>
<td>17,459</td>
<td>3.25</td>
<td>0.36</td>
<td>3,335</td>
</tr>
</tbody>
</table>

*Source: UN ECE statistics.*

#### Table 8

<table>
<thead>
<tr>
<th>Country</th>
<th>Length of railway network km</th>
<th>per 1000 inhabitants</th>
<th>per 1000 km²</th>
<th>Standard gauge network</th>
<th>Double track network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>9,602</td>
<td>0.94</td>
<td>121.75</td>
<td>9,500</td>
<td>1,845</td>
</tr>
<tr>
<td>Hungary</td>
<td>7,681</td>
<td>0.76</td>
<td>82.56</td>
<td>7,432</td>
<td>1,292</td>
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<td>Poland</td>
<td>20,665</td>
<td>0.54</td>
<td>66.09</td>
<td>19,748</td>
<td>8,896</td>
</tr>
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<td>Romania</td>
<td>11,077</td>
<td>0.51</td>
<td>46.47</td>
<td>10,946</td>
<td>2,965</td>
</tr>
<tr>
<td>Slovakia</td>
<td>3,675</td>
<td>0.68</td>
<td>74.95</td>
<td>3,507</td>
<td>1,020</td>
</tr>
</tbody>
</table>

*Source: UN ECE statistics.*
Table 9

*Indicators of tkm performance of road and rail transport*

<table>
<thead>
<tr>
<th>Country</th>
<th>Road transport</th>
<th>Rail transport</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>million tkm performance per 1000 inhabitants</td>
<td>of which: national export-import transit crossing</td>
</tr>
<tr>
<td>Austria</td>
<td>18,141 2,23 12487 4981 673</td>
<td>16879 2,08</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>46,564 4,56 17395 26022 3147</td>
<td>15862 1,55</td>
</tr>
<tr>
<td>Hungary</td>
<td>18,199 1,80 10669 7137 393</td>
<td>8028 0,79</td>
</tr>
<tr>
<td>Poland</td>
<td>78,160 2,05 42379 34740 1041</td>
<td>49595 1,30</td>
</tr>
<tr>
<td>Romania</td>
<td>30,854 1,42 13637 17146 71</td>
<td>15039 0,69</td>
</tr>
<tr>
<td>Slovakia</td>
<td>16,859 3,13 5246 8931 2682</td>
<td>10113 1,88</td>
</tr>
</tbody>
</table>

Source: UN ECE statistics.

Table 10

*Indicators of passenger traffic*

<table>
<thead>
<tr>
<th>Country</th>
<th>Railway passenger km-s (million)</th>
<th>Number of passenger cars 1993</th>
<th>Number of passenger cars 2003</th>
<th>per 100 inhabitants 2003</th>
<th>Increase, % 2003/1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>3,367,626</td>
<td>4,054,000</td>
<td>49.94</td>
<td>120.4</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2,833,143</td>
<td>3,706,012</td>
<td>36.29</td>
<td>130.8</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>2,093,529</td>
<td>2,777,000</td>
<td>27.45</td>
<td>132.6</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>6,770,557</td>
<td>11,243,800</td>
<td>29.43</td>
<td>166.1</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>1,793,054</td>
<td>3,087,600</td>
<td>14.24</td>
<td>172.2</td>
<td></td>
</tr>
<tr>
<td>Slovakia</td>
<td>994,933</td>
<td>1,356,200</td>
<td>25.21</td>
<td>136.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: UN ECE statistics.
10.2 Policy recommendations for transport development for Carpathian countries

Policy recommendations for transport development for Carpathian countries are divided according to local, regional and international transport.

10.2.1 Recommendations for local transport

Accessing highland settlements (villages, forest farms, mining sites and recreational villages) has only one real alternative today (and possibly in the future): It is the network of public (and partially private) roads with technical parameters adapted to current traffic situations and providing easy access to main roads. Although local stone for road building can easily and cheaply accessed from a short distance, this has no relevance for the costs of road building as the building costs of road structures necessary for overcoming the slopes of mountains are increasing the total costs of road building to several times, compared to the costs in plain areas. Due to the expansion of motorized road transportation, the number of traditional local instruments of wood transportation (long lumber slides, cable ropeways and narrow-gauge wood transportation railways) has strongly diminished. However the quality of roads, especially in the mountains of Romania and Poland is very poor and the asphalt cover of roads has been strongly damaged.

The assessment of the real demands for mountain side-roads (including the future demands as well) should carefully consider the local environment with special regard to meeting the requirements of environmental sustainability.

Under the conditions of mountainous surface and low population density:

- A denser and better quality road network is needed in areas exposed to big tourist traffic but the impacts of its higher environmental load should also be foreseen (including the building of a bicycle road network which is considered as an acceptable infrastructure of ecotourism). Strict limitations should be applied regarding cross-motorcycling and quad cycling which heavily damage forest plants and soil (accelerating the erosion process as well). These unfriendly for nature activities generate big noise, disturb and scare away wild animals and tourists searching for peace and quiet. Therefore, they should be permitted only at a few places.
- Motorcycles should be banned from tourist paths and walkways. Truck traffic on one-lane roads should be limited in time for some hours’ period only (ensuring just the provision of local shops with the essential goods for tourists and locals).
− Car traffic and road usage should be minimized in the territory of wild forests which are valuable for the ecosystem and are still ‘untouched’.
− The still operating mini railways in forests should be preserved because their passengers enjoying the beauties of nature and they are less harmful for the environment than any other means of transport. In places where tourists have great affinity for exploring nature in such a way and relatively small groundwork is needed for the building of a narrow-gauge railway line, the construction of even further forest mini-train services seems advisable. For exploring those parts of national parks that are open to the public, battery powered electrical mini- and middle-size buses (operated by light sulphur/sodium batteries) are the most suitable means of transport.

10.2.2 Recommendations for regional and interregional transport in the region

Transport policy objectives in respect to connections between provincial cities and in urban agglomerations should be the preservation of the present role of railway services or at least halting the radically dropping tendency of their use. (The use of small – even one carriage – trains with scheduled e.g. hourly, two hourly services is recommended. It can reduce the costs below the present level.)

Bus services in areas with low passenger traffic should be reorganised by introducing flexible, demand-oriented bus services with call-centre based minibuses or bigger share taxis following the example of the systems implemented in the Italian Apennines. In short-distance cargo delivery the use of railway can be profitable only in exceptional cases (e.g. the delivery of bulked mining products into power plants) in other cases cargo transportation by trucks and lorries has more reality. At certain places rafts and small ships may used as alternative means of timber transportation. (For example national transport concepts mentioning Upper-Tisza, Her- nad, and also on the lower sections of Vah and Hron rivers as potential places).

In respect to domestic passenger transport between regional centres, the use of fast, modern and comfortable IC train services should get a priority. Cargo can be delivered by fast light trains. For faster access of cities, dual carriageways or motorways should be built and air taxi services should be launched.

10.2.3 Recommendations for international (cross border) transport in the region

The international traffic of the majority of countries in the Carpathian region is carried out not in the high mountain areas, rather in ‘mountain slope’ zone or in the basins.
Unfortunately, the number of railway border crossings and the number of road border stations across the Carpathians is still very low. These borders are already borders inside the EU (since the 21st of December 2007 even within the Schengen zone). One of the main priorities should be the improvement of the present cross-Carpathian lines and the establishing of new ones.

Considering the intensity and the structural features of international traffic between cities, the Carpathian region:

- should be connected with a greater number of directions and with higher intensity into the system of international rail services (Eurocity, Euronight, IC and express trains).
- Air connection should be established with a wider circle of cities.
- Carefully planned complex systems of high-speed road should be planned consisting of dual carriageways and motorways oriented towards such directions that are not disturbing seriously any country’s national interests.

Unfortunately, the proposed network of highways and high-speed railway lines, prepared in the framework of the TINA project, is up to this day not sufficiently coordinated between the individual countries, or with the TEN networks of former EU member states. E.g. there are still undecided alternatives of road and railway tracks between Poland and the Czech Republic (or between Austria and Germany on the one hand and the Czech Republic on the other). The question should be also reconsidered: What is the more efficient way of transport between Poland and Slovakia: direct crossing the Carpathians, or through the Czech Republic, using the Silesian Gate’s well established infrastructure?

Uncertainty is revealed also in the new and new ideas concerning the track of the cross-Romanian international motorway to Western Europe. The original line was the Southern line through Timisoara–Nadlac. The next one was the Central track through Brasov–Cluj-Napoca and Oradea. Recently there emerged new ideas about a Northern line Chisinau–Iasi–Satu Mare–Oradea. It is clear that different regional political and economic interests are behind these different variants. But too many project ideas are delaying the implementation of the single one which is realistic.
11 Environment

11.1 Situation and problems

The Carpathian Mountains region represents a unique dynamic common living space (natural, cultural, political and socio-economic), both ecologically valuable and important in terms of its human heritage. The region has enormous ecological and economic potential and currently faces rapid environmental, social and political changes. The challenge is to preserve and fulfil the region’s potential and specificity while increasing its sustainability. This will require adequate, responsible actions, taking into account global, regional and trans-boundary contexts and linkages, in order to enhance both the Carpathian environment and human livelihoods.

The current development pattern in the Carpathian region is leading to the loss of traditional knowledge, livelihood, practices and values. Since the fall of communism and over the last 18 years of transition, changes in urban and the natural environment and its forms and structures were significant. For example, rural depopulation menaces the traditional character of the Carpathian countryside. It is therefore extremely important that culturally sustainable and coherent policies be formulated and implemented in the Carpathians, in order to slow down or perhaps even reverse this trend. Policy measures must be implemented and incentives developed, so that people remain in their villages as guardians of the landscape, traditional knowledge and way of life. Education, communication and public participation, together with environmental awareness, could form the basis for creating a sustainable environment in the Carpathian region.

The Carpathian Mountains are the largest in area, longest, most twisted and fragmented mountain range in Europe (although having lower average altitude than the Alps). Stretching over 8 countries, and dominated by middle and low mountains, they are severely affected by human activity. Land use changes, deforestation, and extreme climatic events against the background of global environmental change are increasing the vulnerability of these mountains to various, both natural and anthropogenic phenomena. They exhibit great fragility, with some of the major threats including deforestation, over-exploitation of niche resources (wood and certain mineral ores), land use changes (land abandonment) and related land degradation and elimination of traditional livelihoods.

The Carpathian Mountains include many unique landscapes, and natural and cultural sites, which express both geographical diversity and a distinctive pattern of regional evolution of man-environment relation over time. The Carpathians were put on the WWF “Global 2000” list among the major ecoregions of the world for the conservation of habitats and biodiversity.

From the bio-geographical point of view the Carpathian Mountains represent a link between the taiga of Northern Europe and the Mediterranean ecosystems to the
south, and also are the home of the largest pristine forests on the continent. The rich variety of endemic plants and animals, characteristic of the Carpathian ecosystems is an integral part of the European biodiversity. The Carpathians as a whole are considered to be a biodiversity-rich region with an estimated minimum of 60,000 wild species. Also, the largest population of large carnivores in Europe are found in the Carpathians.

Efforts to maintain the diverse landscape and native flora and fauna resulted in a well-developed network of protected areas (national and natural parks) that currently cover up to 13% of the Carpathian Mountains. The Implementation of the Nature 2000 Network in the five EU member states should ultimately lead to the protection of at least 15% of the Carpathian total land area.

11.2 Policy recommendations for environmental protection

11.2.1 The preservation of primeval virgin forests

Much of the Carpathian range is covered by vast areas of forests. On average, forest cover is nearly 60%, but the percentage varies considerably according to countries and areas. The largest forest complexes are in the Eastern Carpathians. In the Western and Southern Carpathians substantial areas were deforested and converted to other use of land. Deforestation and fragmentation increases from the region’s main ridge to the peripheries.

The Carpathians area is famous for its relatively large share of natural and semi-natural forests occurring either on areas of high elevations or in areas of rugged topography with limited access. It is expected that these ecosystems provide shelter to a rich variety of rare species, now extinct elsewhere due to intense forms of forest management. Characteristic feature of natural Carpathian forests is the large volume of dead wood. Natural forest floors maintain over 100 cubic meters of dead wood per hectare, while in managed forests dead wood amounts to nearly 10 cubic meters per hectare. The lack of dead wood implies a substantial lack of biodiversity (e.g. plants fungi and invertebrates that depend on this particular substrate for their survival). Dead wood has many environmental values, the most important being carbon sequestration, particularly at higher altitudes. Recently the EU proposed a new agro-environmental scheme of financial support during the period from 2007 to 2013 that would provide opportunities for increasing the area of old wood refuges.

Nearly all the remnants of natural and semi-natural forests in the Western Carpathian are now protected in natural reserves or national parks in the Czech Republic, Poland, Hungary and Slovakia, including their valuable, rare and threatened forest ecosystems. Much larger areas of primeval and natural forests exist in Ro-
Forest regeneration is mostly natural, while the planting of tree seedlings is widely used as a way to convert secondary Norway spruce stands (plantations) into more diverse forest stands.

In general, annual timber cutting in the Carpathians is lower than the gross annual increase of the volume of wood. Nevertheless, deforestation processes are occurring in the region and can be observed in Romania and Ukraine. These processes – beyond excessive timber cutting – can be resulted from increases in soil pollution and acidification, or from establishing new ski trails where the opening of forest margins altered the microclimate and gave rise to bark-beetle outbreaks. Illegal clear-cutting, poaching and the over-exploitation of other forest products such as mushrooms, berries and rare plants and animals are alarming phenomena that are on the upswing.

The structure of forest ownership in the Carpathians has changed rapidly over the last two decades. In the 1990s the majority of forests were state-owned: nearly 100% in Ukraine, over 90% in Romania, more than 80% in Hungary and Poland. The subsequent re-privatisation and restitution of forests to private owners has changed this situation. Nowadays privately owned forests constitute 43% in Hungary, 41% in Slovakia, 40% in the Czech Republic, 20% in Poland, 8% in Romania and there are no private forests in Ukraine. Private ownership often results in a disintegration of forest management and fragmentation of stands. Forest privatisation also tends to place more value on economic benefits, rather than on ecological and social values.

Timber production remains a major source of income in the Carpathian region. However, in some areas, small sawmills and other wood processing industries have a more social than economic character (e.g. preventing local unemployment). A growing source of income from forests is tourism and recreation. Forest tourism trails, hunting areas and guest rooms in mountain villages are all successful economic activities, competing with single wood processing in the Carpathians.

11.2.2 Waste and hazardous materials disposal

Why should waste disposal be one of the most important measures in the Carpathian region? Between 1990 and 1997 waste production decreased substantially in this area. Nevertheless, this decrease was mostly due to dramatically declining industrial and agricultural production. Since 1998, the volume of waste is again increasing dynamically, especially the waste produced by households. In many places waste dumping is on the rise, sometimes dramatically, as old refuse dumps are full and there is a lack of acceptance of new sites being placed in local commu-
nities. Furthermore, in mountainous areas there are less suitable places for refuse dumping than in the plains and underground water streams can transport dangerous materials more rapidly and further than on the plains. Key issues related to waste management in the Carpathian countries are the predominance of landfilling, as a waste management option, and the problem of low recycling rates.

The greatest problem appears to be municipal waste, where the waste generation is worse than 17 years ago. The existence of obsolete hazardous chemicals remains a major issue. One emerging problem concerns new hazardous chemicals, and the recent “hazardous waste market”. A special category of problems is presented by brown-fields and the numerous sites which had been ruined by a variety of waste related problems.

Moreover, major new construction projects (e.g. large dams, highways, factories, harmful mining technologies, mountain winter sport resorts) have led to severe negative impacts on nature and landscapes, as well as producing additional wastes.

The import and mass-utilisation of non-recyclable materials have increased problems associated with waste management, especially at local level, including a significant rise in the total amount of municipal waste. Finally, legislative, conceptual, organisational and technical ignorance of the scope of problems such as communal waste has caused the proliferation of thousands of small local waste sites, both informal and illegal.

**Municipal Waste**

During the communist period municipal waste management received little attention and funding. In the majority of Carpathian countries, neither relevant legislation nor institutions did exist. There were many ten thousands of illegal deposits located in forests and along the country roads. After 1990, the municipal waste situation worsened, partly because of the collapse of the existing system of paper and glass collection, partly because of the increasing use of the non reusable packages and the lack of municipal waste recycling. With more processed food products and with the spread of hypermarkets and other large chain stores, increased human consumption has resulted in greater waste production.

**Hazardous Waste**

Hazardous wastes and their management are a substantial programme in the majority of the Carpathian countries. The share of processing industries is only 27–29% as this figure indicates. This may suggest that a very large number of new small industrial firms together are producing a fairly large part of industrial waste, but they do not report any waste in order to avoid fees and fines.
In Hungary, a programme to build a network of regional hazardous waste landfills and incinerator plants was elaborated in the mid–1980s, but has not been fully completed due to limited financial resources.

An important emerging problem is the illegal or “semi-legal” import of hazardous waste and toxic chemicals from one Carpathian county to other. E.g. hazardous and non-hazardous wastes were transported from Germany to Hungary, simultaneously, hazardous materials were transported from Hungary to Ukraine, to Lviv and Zakarpitia regions.

It is clear that the annual volume of solid waste generated in the Carpathian countries and regions will continue to grow during the next decade, due to the increasing affluence of residents, as well as changing life styles and consumption patterns. Waste management practices need to improve as well. It is probable that a higher share of municipal waste will be recycled, and that the environmental standards both for landfill disposals and incinerators will improve.

The majority of landfills in the Carpathian EU member states do not comply with the standards, elaborated in the EU Landfill Directive. The non-complying landfills will have to be either closed down and the sites rehabilitated, or updated to comply with EU standards. Considerable investment is thus needed in this area.

On the other hand, waste legislation at the EU level is evolving, particularly with the recent revision of the Waste Framework Directive in June 2007, addressing in particular the challenge of establishing a system of efficient and environment-friendly incineration of waste, characterised energy recovery and cross-border trade of waste between EU member states. The Directive also introduces a five-step hierarchical “order of priority” for dealing with wastes as follows:

1) prevention of wastes
2) re-use of products
3) recycling/composting
4) recovering of energy by incineration and
5) landfill disposal.

This hierarchy is to be applied “flexibly” by member states whose first priorities in the Carpathian region must still be considered as the needs to reduce landfill disposals and increase the recycled share of waste.
12 Tourism in the Carpathian area

12.1 Situation and problems

Tourism is one of the most dynamically developing branches of the economy in the Carpathian countries. Before the system change, it presupposed a bureaucratic and humiliating procedure to get a passport and visa to travel abroad. Because of the non-convertibility of Central European currencies, it was also a very expensive decision and only few people could afford it. After the system change, most of these obstacles ceased to exist: visa obligations had been abolished in most relations and Central European currencies became convertible. It became every citizen’s right to have a passport. Parallel with international tourism, domestic tourism also increased. Investments in tourism increased as well.

12.1.1 The main indicators of tourism in Carpathian countries are the following

The number of hotels has increased by nearly 60 percent in ten years. The number of beds increased somewhat slower because new hotels were in average smaller. The number of guests increased parallel, so capacity utilisation remained constant. The share of foreign guests (non-residents) increased somewhat from 42 to 46 percent (Table 11–12).

From the different types of tourism, here we have to concentrate on those which are most important and most specific to the mountainous areas of the Carpathian region.

Table 11

Number of hotel accommodations in Carpathian countries 1996–2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of hotels 1996</th>
<th>Increase in %</th>
<th>Number of hotels 2006</th>
<th>Increase in %</th>
<th>Number of hotel beds 1996</th>
<th>Increase in %</th>
<th>Number of hotel beds 2006</th>
<th>Increase in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Czech Republic</td>
<td>2,737</td>
<td>157.62</td>
<td>4,314</td>
<td>141.33</td>
<td>167,058</td>
<td>123,504</td>
<td>236,104</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>1,687</td>
<td>113.87</td>
<td>1,921</td>
<td>120.69</td>
<td>127,650</td>
<td>154,060</td>
<td>154,060</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>1,247</td>
<td>184.52</td>
<td>2,301</td>
<td>174.10</td>
<td>102,272</td>
<td>178,056</td>
<td>178,056</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>2,362</td>
<td>174.64</td>
<td>4,125</td>
<td>110.77</td>
<td>204,374</td>
<td>226,383</td>
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</tr>
<tr>
<td>Slovakia</td>
<td>976</td>
<td>193.70</td>
<td>.922</td>
<td>139.05</td>
<td>41,700</td>
<td>57,985</td>
<td>57,985</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8,509</td>
<td>159.63</td>
<td>13,583</td>
<td>132.58</td>
<td>643,054</td>
<td>852,588</td>
<td>852,588</td>
<td></td>
</tr>
</tbody>
</table>

Source: Eurostat.
Table 12

Nights spent in the hotels 1996–2006

<table>
<thead>
<tr>
<th>Country</th>
<th>Nights spent in hotels (in 1000s)</th>
<th>by residents</th>
<th>by non-residents</th>
<th>together</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1996</td>
<td>2006</td>
<td>increase in %</td>
<td>1996</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>9,908</td>
<td>8,854</td>
<td>89.36</td>
<td>10,858</td>
</tr>
<tr>
<td>Hungary</td>
<td>4,135</td>
<td>6,622</td>
<td>160.15</td>
<td>7,449</td>
</tr>
<tr>
<td>Poland</td>
<td>4,633</td>
<td>13,910</td>
<td>158.24</td>
<td>3,391</td>
</tr>
<tr>
<td>Romania</td>
<td>16,254</td>
<td>14,929</td>
<td>91.85</td>
<td>2,210</td>
</tr>
<tr>
<td>Slovakia</td>
<td>3,103</td>
<td>3,142</td>
<td>101.26</td>
<td>3,911</td>
</tr>
<tr>
<td>Total</td>
<td>38,033</td>
<td>47,454</td>
<td>124.77</td>
<td>27,819</td>
</tr>
</tbody>
</table>

Source: Eurostat.

12.1.2 Winter sports tourism

The best winter sport facilities in the Carpathian region are in Slovakia, Poland and Romania. The best Czech skiing resorts are outside of the Carpathian region, the Ukrainian resorts are not yet developed, and Hungary’s ski trails are in a rather poor condition.

Slovakia is in a special position from this aspect as here winter sport tourism is the most important kind of tourism for the whole country, while in other countries, this significance is not so outstanding. More than 30 percent of all tourists in Slovakia come here in the winter season.

Three years ago, in 2004–2005, the storm-wind somewhat spoiled the season, in 2006–2007 there was hardly any snow in this part of Europe. For 2007–2008 experts are expecting a long and good season. Domestic financial groups have invested a lot into hotels and residence parks. Nevertheless, they wanted to invest also into ski tracks, pistes and ski-lifts as well. And in this question a new controversy emerged between financial interests and environmentalists. Investors want to establish these new ski-lifts in the place of the perished forests. The representatives of the Tatra National Park (TANAP) are not against sport and tourism, but only for pedestrians, bicycles, in winter only for ski-runners. They insist upon, that at least half of the National Park must remain intact. Today, there is tree felling economic activity in all lower areas of the National Park; only clear-felling is prohibited (that is the consequence of the too large scale, but ambiguously defined NP creation, not only in Slovakia, but in all Carpathian countries). Conflicts concerning the estab-
lishment of new ski-lifts emerged in other Carpathian countries (Poland, Ukraine) as well.

Nowadays, there is a spatial concentration process in winter (ski) sport. Skiers are choosing the best equipped, most fashionable skiing resorts. E.g. Hungarian skiers first abandoned the domestic skiing areas then partly also the Slovakian pistes (earlier it was for most of them the main destination), now they are choosing the Austrian resorts. In the last years, it happened for the first time that domestic tourism in Slovakia surpassed the international one. 42 percent of tourists were Slovaks, 32 percent Czechs, on the third place were with equal 8-8 percent share Hungarians and Poles. Ukraine and Russia would represent a new tourism potential, but visa problems are serious obstacles.

In the future, however, Austrian and Slovak ski resorts have to prepare for facing a larger challenge with much longer duration. It is the climatic change. It is to be expected that the occurrence of winters with insufficient or no snow will be more and more frequent. Mountain resorts have to find other attractions for tourism: new sports, new entertainments. In some countries like Austria, it is not only local but also a national problem.

12.1.3 Rural (village) tourism

Rural (village) tourism is the most dynamic type of tourism in the Carpathian countries. It cannot yet be compared to the Austrian and German ones, but the dynamics is enormous. Especially, if one considers that 20 years ago this kind of tourism practically did not exist in these countries. In Romania, 20 years ago it was still prohibited to put up a foreigner in somebody’s home even for one night, and those who violated this rule could expect severe punishment. Today, there are villages – also in Romania – where on every second house there is a small sign that the landlord/landlady is a member of a rural tourism network.

Rural tourism has many advantages and positive impacts:

− It yields additional activity and income for the rural population and in this way it is an instrument against the depopulation of rural areas.
− It enables a closer contact between host and guest and – if the language is not an obstacle – it helps to get more and genuine information about life and customs of the visited county, region and settlement, than in an international standard hotel. But also for hosts: tourists are not any more strange aliens, but human beings who enjoy their company and are interested in their lives.

But, undoubtedly, rural tourism has also some dangers:
It contributes to the differentiation of villages in a certain area. Not all villages have equal access to tourism possibilities. Villages, having some historic, natural or even literary sights, or closer to tourist routes or highways, have better chance to host rural tourists than others. By the passing of time it can cause substantial welfare differences. It can even sharpen national conflicts (if German tourists are accommodated in German and Hungarians in Hungarian villages, while neighbouring Romanian villages are excluded from this money making opportunity).

Rural tourism can deform the image of villages. Hosts, in order to meet growing tourist demand, enlarge their houses, or build different buildings for guests, which, though having all comfort, do not fit to the old village image. It can be avoided if the building stock is under protection, but only a few villages can be protected.

Rural tourism can deform also the people and their customs in the village. Adapting themselves to the tourists’ expectations, they can loose the essence of their traditions and customs and are performing a false image of rural life to the tourists and also to themselves.

In spite of these dangers, rural tourism is one of the most promising kind of tourism in the Carpathian area and must be enhanced by several instruments. But – similarly to all other types of tourism – it can have harmful impacts, if it is concentrated in a few places. Therefore it should be extended and distributed in the most equitable way, as far as it is possible.

12.1.4 “Nostalgia” tourism

“Nostalgia” tourism is a kind of tourism, very specific, unique to the Central-European, and even more to the Carpathian area. The name “Nostalgia” does not fully express the essence of this kind of tourism, but other name could not be found. But it must to be mentioned here, because it covers a fairly large share of tourism and tourists in the Carpathian area.

During the wars in the 20th century, state borders in Central Europe have changed substantially and large groups – several millions – of people have been resettled from their homes to other areas far away from the original homeland. Most of these people are already dead, but their children and grandchildren are alive and the memory of old homelands and changed borders were passed over to them by parents, and they want to see these places. Communist governments wanted to repress this memory, but after the system change, they came again to the surface but not always in the most fortunate way. Anyway, millions of young and old Germans, Hungarians, the Polish people and the Jews wish to see the places,
cities and villages, which were part also of their family’s history or of their national history. Poles represent the largest group of tourists in some Ukrainian towns and cities, Germans in some places in Poland, the Czech Republic, Slovakia and Romania and Hungarians in some settlements in Slovakia, Ukraine and Romania. And in the recent time even American and Israeli Jewish tourists have visited some towns and regions in growing numbers, searching for the roots of their families.

These “nostalgia” tourists were not always welcomed by the new residents of these places. And also the visitors have not always behaved adequately. But “nostalgia” tourism was and is profitable for both parts and – despite difficulties – it also contributed to the mutual acquaintance and to the overcoming of bad prejudices.

European borders do not represent any more obstacles to tourism and travel. “Nostalgia” tourism will gradually lose its original intention and character. But tourists, by leaving their country and entering another, should be aware that it is another country, with other official language, other official names of cities and places, other customs and regulations, which they have to comply. And the hosts should accept, that the history of their region is partly a common history shared with the visitors, and that their visitors- as every human being – have some right also to “nostalgia”. They can even profit from this type of tourism by offering guidance and brochures on the language of their visitors.

12.2 Policy recommendations for tourism in the Carpathian region

12.2.1 To create conditions for sustainable tourism in the Carpathian region

The Carpathian Mountains, with their diverse natural treasures and long preserved traditions, present a lot of ideal sites for tourism development. In some regions there has been no advantage taken of these values so far, while in quite a number of other destinations in the Carpathians even mass tourism development has already begun.

However, if tourism development is to be sustainable in the future, the tourism-related development of the Carpathian Mountains should be based on the same overall goals: Long-term economic prosperity of local communities, the preservation of tourism’s basis – sound nature and lively culture – as well as on ensuring visitor satisfaction. These goals perfectly support each other and are applicable to all kinds of (potential) tourist destinations.

Areas where uncontrolled or mass tourism already plays an important role should try to become more conversant with the principles of sustainability. In other regions, which face the typical threats of many rural areas, e.g. high unemployment
rates, poor local economy and migration into cities, starting sustainable tourism development can offer a viable option with benefits for the entire local community.

Moreover, sustainable tourism development can also serve as an alternative economic solution where less environmentally and socially friendly economic activities threaten the local nature and culture.

**Benefits of sustainable tourism for areas with many visitors**

A beautiful environment and rich cultural heritage may draw the attention of a lot of visitors to an area, even if tourism development there is only fragmentary or non-existent. In these cases, the negative impacts of tourism may be particularly critical, as unplanned development of singular tourist businesses and infrastructure leads to unmanageable threats for nature (e.g. through trails that cut through biocorridors) and society (e.g. growing inequalities in a region). The consequence thereof can be the irretrievable ruin of the region’s treasures and thus of its tourism-related potential. In order to prevent such threats and to allow for a controlled development that benefits the whole local community and its environment in the long-term, comprehensive sustainable tourism development represents a suitable alternatives.

**Sustainable tourism has potential in areas where tourism is not yet developed**

Development approaches very often focus on the economic sector, not taking into account the impacts of their activities on sensitive local cultures and environments in the Carpathian Mountains. On the other hand, environmentalists who are active in the natural environment of the Carpathians concentrate solely on the conservation of nature without paying attention to the necessity of the local population to make a living. The comprehensive approach of sustainable tourism based on the CBD Guidelines takes into account both important factors: the need to use natural resources for the well-being of the local population and the obligation to maintain the natural environment for both its intrinsic value and as a long-term source for the economic viability of tourism development.

**Sustainable tourism as a better alternative**

Natural resources represent one of the most important factors for economic development in the Carpathian countries. Very often, these resources are used in a rather short-termed manner, namely by exploitation through logging and mining. Pointing out merely the economic problems which follow from these forms of use, two facts have to be mentioned: firstly, that the resources can be capitalised on only once and secondly, that the benefits derived are not equally shared among the local population. Sustainable tourism development strives to avoid these shortcomings and thus represents a good alternative. It aims at conserving natural re-
sources for the sake of enduring economic viability (continual use of resources) while at the same time using them in order to achieve benefits for the local people.

12.2.2 The Via Carpathica

All Carpathian countries have a network of tourist tracks running through the most picturesque landscapes and cultural and natural heritage sites of the respective countries.

One of the Carpathian Project’s actions on the ground is the development of “Via Carpatica”, a trail network that runs through all of the Carpathian countries and combines projects and sites with sustainable tourism development. This trail network will not only underline the importance of a joint strategic approach across the Carpathians, but will also support the individual sites in a practical manner through the exchange of best practices and common publicity.

An increasing flow of visitors will benefit from this network. In this respect an increase of accommodation capacities must be taken into account.

Large accommodation facilities (hotels, motels) and car access must be avoided at high altitudes; instead huts and camps have to be built in new key locations.

The mountain huts in the Romanian Carpathians became insufficient in the last decades, as number and capacity, meeting poorly the needs of travellers, as regards the number of places and comfort.

An important number of mountain huts must be created, with adequate capacities and services; this type of accommodation being easier to build, the most environmental friendly and educative for the public.

Mountain culture must be promoted, by the specialized associations, all over this network, in order to inform and guide tourists for better understanding the nature, and limitations imposed by this special environment.

12.2.3 Reconstruction or development of Forest Railways for tourism purposes

For many of our tourist areas, transport infrastructure in one form or another already exists. It may to a greater, or lesser, extent be suitable for use, or for development as part of a Tourist Strategy. An impact assessment of its use for what may be new purposes should be carried out. Thus, many rural areas in the mountain region have narrow gauge forestry or other industry railways whose industrial use is either reducing, or has disappeared. The infrastructure, or the works associated with the line of route may still exist and can be economically reused in one form or another. This can often be an economical option when compared with opening up sensitive rural areas by the development of other modal access, particularly uncontrolled modes such as roads.
In this respect, the term Tourist Railways includes railways of any track gauge and history that can provide a positive benefit to an area’s development by the sustainable provision of environmentally friendly access to the area or to the specific attraction concerned.

In most cases, the railway will have been part of the area for many years. The recycling of its assets to serve for a developing tourism industry provides an alternative to use new scarce resources to serve what is in many cases the only potential source of regeneration of an area and to serve for fostering ion of support for a sustainable economy for the local population.

It can be observed in many countries that there is a positive “steam effect” that delivers extra visitor numbers where historic locomotives and rolling stock are used on tourist trains.

For many years, the planned economies of the Carpathian countries have tended to separate public transport from local interest as being one of the services provided by national government. This has prevented changes in local economies being reflected in changes to local railways, or making such reaction slow, resulting in alternative solutions such as road transport being founded by the population. The resulting downward spiral in the economics of operation of local railways has lead to the inevitable decision at national level of closure.

The need, before it is too late, is to follow the example of other countries that faced the same situation and to pass the ownership and control of local railways to local authorities and to local people. By that means, local decisions can be made which reflect the needs of the local community. Whether it is to run trains at different times for market days or special events, or to get the local community and children to help tidy up their local station, or even to sell off redundant buildings to local businesses for conversion for other uses, the best decisions for local and tourist railways are always going to be the local decisions.

This can be seen in practical examples across the world tourist railways already existing in every member-state of the Carpathian Convention carrying varying visitor numbers. Alongside those which operate today there are many potential projects that could contribute to the regeneration of their local communities as part of a robust strategy for sustainable tourism paralleling conservation. To achieve that, there is a need for the recognition of financial support and security to go hand in hand with local community support sites.

Governments are asked to sign up to a recognition that tourist railways, particularly those making use of existing heritage equipment and structures that have been part of their local landscape for many years, can play a vital part in a sustainable Tourism strategy.

As such, policies should be put in place to ensure that such assets are protected against predatory destruction or sale for short-term gain, either privately or by the local or state authorities.
Policies are needed to make it possible to transfer ownership and responsibility for local railways into the care of local communities authorized for making decisions on maximising the contribution of such railways to sustainable regeneration of their areas. Such transfers should be supported by funding agreements to provide financial resources for the initial transition to local control and development of a sustainable business structure in a robust manner.

Positive encouragement is needed to make partnerships of differing organisations working on brightening the long term future of their region. This includes in particular the encouragement of cross-border partnerships of groups with common interests that could make them more eligible for trans-national project funding.

Tourist Railways are a success story in many countries of the world. The Carpathian community of countries, entrusted with one of the few remaining unspoilt mountain areas in Europe, is able to take steps to ensure that their success can be spread through this region in partnership with ecological policies to protect the landscape.
13 European Territorial Cooperation within the Carpathian area

13.1 Situation and problems

The Carpathian region is a specific area of Europe, even from the point of view of European (international) cooperation. There are few places of the world, where in a relatively small area, the borders of so many countries meet. The most outstanding example can be found in the North-Eastern Carpathians. By drawing a circle with 60 km radius around the town of Mukacheve, (Ukraine, Transcarpathia region), some areas of 5 countries will be covered in the circle (Poland, Slovakia, Ukraine, Hungary and Romania). There are only three places in the World in similar situation: beside Mukacheve, Darjiling in India (India, Bangla Desh, Nepal, Bhutan and China) and Katuna Mulilo in Namibia, Afrika (Namibia, Botswana, Zimbabwe, Zambia and Angola).

If there is one area in Europe for which European cooperation is of vital importance, then it is the Carpathian region. The area which was delineated for the project includes 14 state border sections in 4466 km length (AT–CZ, PL–CZ, CZ–SK, PL–SK, PL–UA, SK–UA, SK–HU, SK–AT, HU–AT, HU–UA, HU–RO, RO–UA, HU–SRB, RO–SRB). It includes 81 NUTS3 units, of which, according to EU definition, 52 are border regions. Most of its large rivers are flowing through several countries. The Danube catchment area covers – at least in a small part of all 8 Carpathian countries. Tisa catchment area covers 5 countries. The new member states, with the exception of the Czech Republic, all are on the external border of the EU. It is therefore justified that the 6 EU member countries in the Carpathian region have a 28 percent share of the “European cooperation” Structural Funds support of the EU (2173 thousand €, 2004 prices for 2007–2013).

Cross-border cooperation between Carpathian countries has two main forms:

− Bottom-up initiatives which, of course, can enjoy EU support to their activities. Such initiatives are the Euroregions and Working Communities (Figure 16);
− Top-down initiatives of the European Commission, that is the cross-border and Trans-national Structural Funds programmes.

13.1.1 Bottom-up initiatives

The main types of bottom-up cross-border regional cooperations in the Carpathian area are the Euregions or Euroregions. The prototype of these regions was established as early as the 1970s on the German-Dutch border. Its organisational structures served as a model for all later established similar regions, at least formally. They emerged first along the Western borders of Germany. After the political
change in 1990, they appeared also along the Eastern borders of Germany and later there was diffusion to other Eastern borders. Now, the German–Polish, the German–Czech, the Polish–Czech, the Polish–Slovak, the Slovak–Hungarian and the Austria–Hungarian borders are fully covered by Euroregions (Table 13).

The similarity to the model of the Dutch-German Euregion is, however, only the appearance, being the competencies and powers of Carpathian Euroregions radically different from the original model. Their established common boards do not dispose over any genuine decision-making competencies; they can adopt only recommendations. Even these recommendations are mostly of rather general and vague character. The partner regions are able to pay a very modest membership fee, which is hardly enough to pay one or two employees in a secretariat, and to host the rotating meetings of the board.

Figure 16

*Euroregions in the Carpathians*

*Source: Author’s edition.*
Table 13

*Euroregions in the Carpathians*

<table>
<thead>
<tr>
<th>Number</th>
<th>Name of the Euroregion</th>
<th>Countries</th>
<th>NUTS2 level regions, where the cooperation takes place</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Euroregion „Tatry”</td>
<td>PL, SK</td>
<td>Podkarpackie, Východné Slovensko</td>
</tr>
<tr>
<td>2.</td>
<td>Euroregion „Beskidy”</td>
<td>PL, SK</td>
<td>Malopolskie, Stredné Slovensko</td>
</tr>
<tr>
<td>3.</td>
<td>Euroregion „Tešínské Slezsko – Šląsk Cieszyński”</td>
<td>PL, CZ</td>
<td>Šląskie, Moravskoslezsko</td>
</tr>
<tr>
<td>4.</td>
<td>Euroregion „Praděd – Pradziad”</td>
<td>PL, CZ</td>
<td>Opolskie, Severovýchod</td>
</tr>
<tr>
<td>5.</td>
<td>Euroregion „Silesia”</td>
<td>PL, CZ</td>
<td>Šląskie, Moravskoslezsko</td>
</tr>
<tr>
<td>6.</td>
<td>Euroregion „Neisse – Nysa – Nisa”</td>
<td>PL, CZ, D</td>
<td>Dolnośląskie, Severovýchod, Dresden</td>
</tr>
<tr>
<td>8.</td>
<td>Bílé – Biele Karpaty</td>
<td>CZ, SK</td>
<td>Strední Morava, Západné Slovensko</td>
</tr>
<tr>
<td>9.</td>
<td>Euroregion Ister-Granum</td>
<td>SK, HU</td>
<td>Közép-Dunántúl, Západné Slovensko, Stredné Slovensko</td>
</tr>
<tr>
<td>11.</td>
<td>Ipoly – Ipel’</td>
<td>SK, HU</td>
<td>Észak-Magyarország, Západné Slovensko, Stredné Slovensko</td>
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<tr>
<td>12.</td>
<td>Euroregion „Neogradensis”</td>
<td>SK, HU</td>
<td>Észak-Magyarország, Stredné Slovensko</td>
</tr>
<tr>
<td>14.</td>
<td>Euroregion „Košice – Miskolc”</td>
<td>SK, HU</td>
<td>Észak-Magyarország, Východné Slovensko</td>
</tr>
<tr>
<td>15.</td>
<td>Euroregion „Kras”</td>
<td>SK, HU</td>
<td>Észak-Magyarország, Východné Slovensko</td>
</tr>
<tr>
<td>16.</td>
<td>Euroregion „West Pannonia”</td>
<td>A, HU</td>
<td>Burgenland, Nyugat-Dunántúl</td>
</tr>
<tr>
<td>17.</td>
<td>Euroregion „Bihar-Bihor”</td>
<td>RO, HU</td>
<td>Nord-Vest, Észak Alföld</td>
</tr>
<tr>
<td>18.</td>
<td>Euroregion „Upper Prut”</td>
<td>MD, RO, UA</td>
<td>Moldova, Nord-Est, Chernivtsi</td>
</tr>
<tr>
<td>19.</td>
<td>Euroregion „Danube-Maros-Tisa-Kris”</td>
<td>HU, RO, YU</td>
<td>Dél-Alföld, Vest, Vojvodina</td>
</tr>
<tr>
<td>20.</td>
<td>Euroregion „Danube 21st Century” (Iron Gate)</td>
<td>BG, RO, YU</td>
<td>Sud, Sud-Vest, Severozapaden, East Serbia</td>
</tr>
</tbody>
</table>

*Source:* Author’s collection.
The Euroregions and their members can submit, as any other juristic or natural person an application for INTERREG and PHARE-CBC project support. Of course, the organisational framework of the Euroregion facilitates some coordination of these project proposals and applications, and it is an advantage of this organisations. But, for the time being, establishing a Euroregion is rather of political significance, signalling the intention to cooperate. There are only few Euroregions which can boast with tangible results.

At present, there are 20 Euroregions or “Euroregion type” organisations in the Carpathian area (see Table). It is more than 20 percent of all such organisations in Europe.

Organisational consolidation, however, did not follow the quantitative increase. In many cases, even the organisational form is not yet cleared. Are they associations, or corporations or interest groups? Sometimes national governments do not know how many Euroregions are on their borders, because Euroregions are subjects neither to Association Act, nor to Corporation Act and there is no obligation to register the establishment of a Euroregion. The list below, can be therefore only of tentative character. The recent regulations of the European Commission concerning “European Groupings of territorial co-operation” might facilitate and promote the activities of Euroregions also in the Carpathian area.

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**One example: The Carpathian Euroregion. Its birth and its activities 1992–**

After the democratic change in Central and Eastern Europe, enthusiasm for transnational and cross-border cooperation increased both within the respective countries and outside the region. A New York based institute, the Institute for East-West Studies, took the initiative in 1991, and proposed to establish a cooperation system in the North-Eastern Carpathian area. The family of the director of the Institute, Mr. John Edwin Mroz, stemmed from this area. That was one reason for his and his institute’s commitment to the cause of transnational cooperation in the region.

But, after the first months of general enthusiasm, already the first steps of organisation met some difficulties. Initially, in 1992, counties and districts from all 5 counties applied for membership in the cooperation scheme. But the governments of Slovakia and Romania vetoed their application with the argument: their regions were not entitled for entering into international contractual relationship without the permission of the central government. So, the Slovak and Romanian regions became not members but only observers in the new Euroregion. Later, however, they joined the Carpathian Euroregion.

In the first years, after the foundation, the Institute for East-West Studies persuaded one Japanese Foundation, the Sasakawa Foundation, to support financially the Carpathian Euroregion. The Council of Europe included into several publications their contribution to the foundation of the Carpathian Euroregion, but, as a matter of fact, after the foundation they never contacted the region any more. Concerning the European Union, the Carpathian Euroregion was not eligible for EU support since none of the founding countries was – by the time of founding – member of the EU, not even candidate in the year 1993. It was a strange situation: a European region on a very critical point of the continent could be established and could operate only with the organisational help of an American institute and with the financial help of a Japanese foundation.

Somewhat later the Carpathian Euroregion lost one of its most important external financing sources. The only substantial funding resource remained the membership fee of the participating
regions. But the Ukrainian regions were unable, from the beginning, to pay any membership fees, and the same applies to the Romanian and Slovak regions which joined later. Only the Hungarian and Polish regions paid the membership fee, but under these circumstances, it became quite high. Some Hungarian members found the costs of membership higher than its benefits and left the Euroregion.

Beyond financial problems, there were organisational and logistic problems as well. The first seat of the common secretariat was located – as a symbolic act – to Ukraine, to the city of Uzhgorod, in Transcarpathia region. It turned out soon that this choice entails a lot of logistic difficulties. Phone contact to Ukraine was extremely difficult, electronic (e-mail, internet) contact was almost impossible. The city of Uzhgorod is 23 km from the Hungarian and 6 km from the Slovak border but border crossing required several hours because of the slow and bureaucratic procedures. Consequently, the Secretariat had to be transferred to Hungary, to Debrecen, later to Nyíregyháza. The seat of the Carpathian Foundation was initially Košice in Slovakia, later it was also relocated to Eger, Hungary.

Difficulties have arisen also from the fact that the roles, competencies and the autonomy of regions in the participating countries were quite different. Members of the Council of the Euroregion were exclusively heads or leading officials of regional governments, no representatives of the business or scientific community, no NGOs.

The experts of the Euroregion prepared an excellent strategic document for the development of the area, a good operational programme and several project proposals. Unfortunately, with the exception of some conferences and study tours (and the cooperation of the respective universities) nothing was implemented from these strategies, programmes and projects during the 15 years existence of the Euroregion. The main reason for it was the lack of financial resources, but the inability of taking decisions and the lack of connections to the business community played also a role in this failure. Important factor was also the lack of an effective neighbourhood policy of the EU in these years.

Now, from 2007, there are possibilities for the efficient support of transnational cooperation in this area. The institutions, instruments, legal regulations and resources are in place. Unfortunately, in the meantime the Carpathian Euroregion has lost its dynamics, enthusiasm, and also a large part of its membership. Perhaps it has been established too early.

13.1.2 Top-down initiatives: the Structural Funds Interreg and Territorial cooperation programmes

Interreg was a Community initiative which aimed to stimulate interregional cooperation in the European Union. It started in 1989, and was financed under the European Regional Development Fund (ERDF). It was designed to stimulate cooperation between the member states of the European Union on different levels. One of its main targets was to diminish the influence of national borders in order to attain equal economic, social and cultural development on the whole territory of the European Union. Interreg was launched as Interreg I for the programming period 1989–93, and continued as Interreg II for the subsequent period 1994–99. It has moved on to Interreg III for the period 2000–2006. Candidate countries could join the programme from 1995 (those who had EU member neighbour). From 1996, the programme was extended to borders between candidate states (it was financed from the PHARE pre-accession financial support instrument).
Nevertheless, in the first period, there were several problems during the implementation of Interreg-PHARE-CBC programmes:

- Candidate countries were obliged, to spend the largest part of their PHARE-CBC allocation on the borders to EU member states, while most needs and problems emerged on the other borders;
- Interreg was financed from the Structural Funds, PHARE-CBC from pre-accession aid. The two financial support funds were managed by two different DG-s in the European Commission. Their regulations, methodologies, timetables were totally different. Under such conditions it was extremely difficult (if not impossible) to implement a really common programme.
- Not only regulations but basic objectives were also different. Basic investment needs in the border regions of member states were satisfied from national resources and from Objective 1 support. Interreg was used mainly for the satisfaction of secondary, not so basic and urgent needs. In contrast, PHARE-CBC was the only source of EU support in the border regions of candidate states and they used it to satisfy basic needs (water supply, sewage systems, access roads and so on). Anyway, PHARE-CBC was very useful, but programmes could not be regarded as really common ones, they were rather parallel ones.
- A serious problem was that these funds could not be used along borders with non-member and non-candidate states, though, these border regions were – mostly – in the worst and most critical situation.

The situation turned for much better after 2004, when candidate states became members and they had access to the Structural Funds. It improved further from 2007 when the neighbourhood programmes and the ENPI (European Neighbourhood and Partnership Instrument) was introduced. The new instruments enabled non-member states to participate in these programmes on equal conditions. Regulations became more harmonised. Besides cross-border programmes, neighbourhood programmes play a more important role in European cooperation.

The main financial data of the programmes are the following.

As it can be seen, ERDF allocations to these programmes between 2004–2006 and 2007–2013 have increased six-ten times. It means that substantially more and larger projects can be implemented.

The other strand of INTERREG (Territorial cooperation) is trans-national cooperation. This strand aims at the cooperation within large European regions, including regions from several states. Until 2006, the Carpathian region as a whole belonged to the CADSES (Central European, Adriatic, Danubian and Southeast European Space) programme area, including 17 states from Poland to Greece. By preparing for the next – 2007–2013 programming period, the Commission and some member states found this space too large for trans-national cooperation and
divided the CADSES area into two cooperation areas: Central Europe (including the Carpathian countries Austria, Hungary, Czech Republic, Poland and Slovakia), and Southeast Europe (including the Carpathian countries Austria, Slovakia, Hungary, Romania and Serbia). As it can be seen, the Carpathian area had been divided into two halves. Launching projects, embracing the whole Carpathian area will be not impossible, but undoubtedly more difficult than before.

Nevertheless, it can be stated, that even in the past period, very few CADSES projects were devoted to the problems of the Carpathian area. Out of the 1600 project partners of the CADSES projects, only 70 (4.3%) were located in the Carpathian area. Out of the 134 lead project partners, only 4 (3%) were located in the Carpathian area (Krakow, Vsetin, Karviná, Miskolc). And even out of these four, only one was engaged in the problems of mountainous areas (Shining Mountains, Miskolc) (Table 14).

Table 14

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<tr>
<td>Total million €</td>
<td>Total million €</td>
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<tr>
<td>ERDF contribution million €</td>
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Source: Collected by the author.
13.2 Policy recommendations in respect to territorial cooperation and common programmes

1) The promotion of European territorial cooperation should be one of the main objectives of Structural Funds supports. Territorial cooperation had been “promoted” to one of the three priorities of the Structural Funds objectives. A substantial share of support was allocated to the new member states and this is also a step to the right direction. Nevertheless, funds devoted to trans-national cooperation did not increase, yet considering inflation they even decreased in the present period. This is regrettable. Namely, for Carpathian cooperation, the most suitable form of cooperation is trans-national cooperation.

2) In the framework of cross-border programmes one should aim at launching really common, or at least “mirror” projects. Only projects of this kind contribute to eliminating borders as obstacles of cooperation.

3) Beyond bilateral cross-border programmes, larger emphasis should be given to neighbourhood programmes, including the participation of non-member states in the Carpathian area. Without the participation of Ukraine, it is impossible to prepare a really integrated programme for the Carpathians. Experience has shown that most problems of territorial cooperation are concentrated in those relatively small areas where the borders of three countries meet.

4) Mountainous areas should receive more attention in territorial cooperation projects. The significance and weight of the problem is much larger than the attention which was devoted to it in the framework of CADSES programme.

5) In the Alpine space, much more experience has been accumulated concerning project themes and approaches in mountainous areas. The Central European programme space ensures possibilities for projects handling together and parallel the problems of the Alps and the Carpathians. There is much to learn from the Alpine praxis in this respect.

6) Despite the division of the Carpathian area into two programme spaces, there are possibilities for implementing comprehensive Carpathian projects and for comprehensive Carpathian participation. According to Structural Funds regulations 20% of programme allocations can be used outside the programme area, and 10 percent even outside the EU. Projects should take advantage of this regulation.
APPENDIX

Territorial visions in the Carpathian Area
Figure 1

Conflicts between natural protection and human activities

Source: Maciej Borsa, Urbanproject (Romania).
Figure 2

Transport networks

Source: Maciej Borsa, Urbanproject (Romania).
References


Deutsche Institut für Urbanistik (Hrsg.): Dezentralisierung und Umweltverwaltungsstrukturen in Mittel- und Osteuropa. Berlin: Deutsche Institut für Urbanistik, 2002. (Materialien, 8.)


REFERENCES


Kozak, J.: Forest cover change in the Western Carpathians in the past 180 years: a case study in the Orawa Region in Poland. – Mountain Research and Development, 23. 2003. 4. 369–375. p.


Regional Problems and Policies in the Czech Republic and the Slovak Republic. Paris: OECD, 1996


Turnock, D.: Regional development in Romania with particular reference to less-favoured areas. – European Spatial Research and Policy, 8. 2001. 2. 5–21. p.
http://experts.about.com/e/c/ca/Carpathian_Mountains.htm
http://www.anped.org/index.php?part=45&section=politicalprocesses&reference=0
http://www.answers.com/topic/carpathian-mountains
http://www.carpathianconvention.org/text.htm
http://www.carpathianfoundation.org/cf/web/branch_hu/index.jsp
http://www.carpathianfoundation.org/cf/web/index.jsp
http://www.recc.org/REC/Programs/ITF/Convention-Carpathian_full.html
http://www.save-foundation.net/english/PDF/Carpathian_Agrobiodiversity.pdf
http://www.undp.org.ua/?page=projects&projects=29
http://www.unis.unvienna.org/unis/pressrels/2006/unisinf119.html
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