

Conclusions and Options for Action





Pavel Meisl, Peter Lengyel, Tomasz Nakielski, Dušan V



The Carpathian Mountains region represents a unique and dynamic common living space (natural, cultural, political and socioeconomic), 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 fulfill the region's potential and specificity, while increasing its sustainability. This will require adapted, 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 loss of traditional knowledge, livelihoods, practices and values. Since the fall of communism and over the last 18 years of transition, changes to the urban and natural environments and their forms and structures have been significant; for example, rural de-population menaces the traditional character of the Carpathians countryside. It is therefore critically important that culturally sustainable and coherent policies be formulated and implemented for the Carpathians, in order to slow down and 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 livelihoods. Education, communication and public participation, together with environmental democracy, could form the basis for creating a sustainable environment in and development of the Carpathian region.

KEO introduces the concept of an "ideal" Carpathian space, with closer linkages between urban and rural areas and aiming to encourage stronger cohesion between sectoral and cross-cutting policies in the region, and increase public participation in the decision-making process. The Carpathian Framework Convention (CFC) provides a trans-national platform for multi-stakeholder cooperation and constitutes a valid basis for the implementation of the most relevant EU policies across the Carpathian region. Efforts to raise the visibility, significance and hence the political power of the Carpathian Mountains and common Carpathian space at the EU level need to derive from the region's positive externalities and competitive advantages, along with the geo-strategic importance of the Carpathians (in terms of pan-European transport corridors, including oil and gas pipelines traversing most of these countries).

Uniqueness of the Carpathians (Including Current Major Threats)

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 across seven countries (eight, if the elevated "Hainburger Berge" in Austria is considered the final western terminus), and dominated by middle and low mountains, they are severely affected by human activity. Land use changes, deforestation and extreme climatic events against a background of global environmental change are increasing the vulnerability of these mountains to various phenomena, both natural and anthropogenic. 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 manenvironment relations over time. The Carpathians were put on the WWF 'Global 2000' list among the major eco-regions of the world for the conservation of habitats and biodiversity, and since 1999 are featured by the Carpathian Ecoregion Initiative (CERI) for the integrated conservation of the natural and cultural heritage and sustainable, cross-border development of their mountainous space.

From a bio-geographical point of view, the Carpathian Mountains represent a link between the taiga of Northern Europe and Mediterranean ecosystems to the south, and also are home to the largest pristine forests on the continent. The rich variety of endemic plants and animals characteristic of Carpathian ecosystems is an integral part of European biodiversity.

Being in the heart of Europe, the Carpathians have since centuries ago been at the contact point of empires, ethnic groups and cultures. The population preserves cultural and economic traditions, especially in the mountains. Numerous Carpathian settlements preserve the ethnographic traditions of the Czechs, Hungarians, Poles, Romanians, Ruthenians, Slovaks, Szecklers, Transylvanian Saxons and Ukrainians. The multitude of passes, depressions and valley corridors has long facilitated inter-ethnic contacts and highlighted common ethnographic elements. The Carpathians' unique cultural heritage includes many castles, monasteries, peasant strongholds, and painted (and often fortified) churches that are listed under UNESCO's World Heritage Sites programme.

Socio-Economic Considerations

The Carpathians have been on the periphery of major development axes and remote from most leading/major markets, a situation which has helped to preserve biological resources over the centuries. Thus, the region remains relatively under-developed compared with the rest of the (full seven) countries. The seven Carpathian countries have been and continue undergoing transition from previous planned economies to a free-market situation, at varying rates and under very different conditions. Differences in socio-economic policies between the five Carpathian EU member states on the one hand, and Serbia and Ukraine on the other, serve to illustrate this regional diversity in terms of socio-economic development, which has important implications for the Carpathian region itself.

The geo-strategic importance of the Carpathian region lies largely in the oil and natural gas pipelines (infrastructure) traversing most of the countries from the east on their way to Western Europe. This infrastructure has implications in terms of potential impacts on the unique nature, landscape(s) and biodiversity of the region, as well as in the economic and political realms.

Agriculture, forestry and mining have been the traditional major economic activities in the region. While they remain so in Serbia, Ukraine and parts of Romania, the service sector is developing rapidly in most of the Carpathian EU member states (CZ/HU/PL/SK). Tourism plays

a major role in the service sector, though sustainable tourism is still under-developed.

The issues of poverty and under-employment are key development-related challenges. Interlinkages between poverty and environment are important issues for how human well-being is influenced by the natural environment, and viceversa. Certain communities in particular are vulnerable and, at the same time, victims of poverty, social exclusion and discrimination (e.g., the Roma minority).

Migration has increased in recent years due to the scarcity of work opportunities in the poorest areas of the region, and proliferation of offers in other parts that are more economically developed, along with out-migration from the Carpathians in general.

Environmental Issues

The Carpathians as a whole are considered to be a biodiversity-rich region, with an estimated minimum of 60,000 wild species. The number of flora species represents about 30% of the European plant variety, while the proportion of the Carpathians' area in Europe is only 1:46. The wild fauna species include over 500 taxa of vertebrates and at least 35,000 invertebrate taxa. Also, the greatest populations of large carnivores in Europe are found in the Carpathians, and the region is also relatively rich in endemic species.

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

The Carpathians are famous for their relatively high percentage of natural and semi-natural forests, occurring either in higher elevations or in areas of rugged topography with very limited access. The largest share of virgin forest in Europe is found in the Carpathians, and the average forest cover is nearly 60%. Currently the forests are no longer perceived from a purely economic viewpoint, with their ecological functions and services increasingly being recognised, and nearly 40% of all forests are included in various types of protected areas.

Logging and the wood-processing industry are a main source of income in many areas of the Carpathians. Current trends show that in Europe, the process of deforestation is being reversed and overall forest cover is increasing, a trend that can also be seen in the Western Carpathians. After forestry, the second largest form of land use is agriculture (27.5%), while other activities and land use types, mainly urbanised and industrial areas, cover 13.4%. The intensification of conventional agriculture is taking place in some fertile areas, while traditional small farming is also on the rise in others. Conversely, the abandonment of agricultural land and village depopulation are common phenomena in high-altitude mountain zones.

A characteristic feature is the scale of land use. With the exception of large areas of forest, patches of arable land, grasslands/pastures and urban use are small and form a unique landscape 'grain pattern', with 'coarse' forest areas and 'fine' areas for other uses.

Current threats to biological and landscape diversity include climate change and anthropogenic impacts such as pollution, infrastructure development (especially hydroelectric investments, trans-Carpathian motorways/roads, and large tourist centres particularly ski resorts), the above-mentioned changes in agriculture, unsustainable use of natural resources, loss of traditional livelihoods and poaching.

According to the latest predictive scenarios, climate change will strongly affect hydrological and terrestrial biological systems through increased run-off and earlier spring peak discharge in many glacier- and snow-fed rivers; warming of lakes and rivers in many regions, with effects on thermal structure and water quality; and earlier timing of spring events, such as leaf unfolding, bird migration and egg-laying. In the Carpathian region, increasing air temperatures and decreasing total precipitation in the warm period will lead to a decrease of relative air humidity. This will result in less favorable conditions for high forests and the expansion of xerophytic shrubs and steppe vegetation.

Changes to the living conditions of plants and animals will also result in biodiversity changes. The dendroclimatic model (see section 3.6) for the region of upper Orava (in the Slovak Republic) showed that 11.5% of individual trees will be negatively impacted by climate change, 34.6% will be unaffected and 53.9% will react positively. The research also showed that climate change would mostly affect forest cover in higher zones (Lapin et al. 2000). Jankovsky and Cudlín (2002) showed that high mountain forests would be impacted by a precipitation deficit that will result in weakened spruce communities, making them vulnerable to windstorms and intensive rains.

Furthermore, climate change would induce the migration of species and current life zones towards higher altitudes. The present sub-polar

tundra zone (according to the Holdridge classification) is projected to disappear from the Romanian Carpathians, while other zones, typical for the current climate on the plains and in hilly areas (e.g. cool temperate steppe and cool temperate moist forest), are projected to expand in higher mountain areas (Alexandrescu et al. 2003).

Climate change will also impact human health, either directly through the physiological effects of heat and cold, or indirectly, through the spread of vector-borne pathogens. An increase in such impacts has already been observed during recent decades.

Environmental problems related to inefficient and unsustainable consumption of natural resources and accumulation of waste are also a major issue in the region. The amounts of industry-generated wastes in the Carpathians decreased from 1990 to 1996 due to the economic recession. Since the recent recovery, amounts of waste generated are increasing again, accentuating environmental impacts such as water and soil pollution, and the destruction of aesthetic and landscape values.

Hazardous wastes are mostly produced by manufacturing, so their management is a substantial problem for the industrialized parts of the Carpathians (particularly in Hungary). The total production of municipal waste in Carpathian countries is constantly growing due to higher consumption patterns.

Waste management is being harmonised with the relevant EU Directives in five of the Carpathian countries. The most important emerging problem is the export of hazardous wastes and toxic chemicals from the five EU to the two non-EU Carpathian countries, and in some cases export from other EU countries to the five Carpathian EU members.

An increase in proper waste management techniques may be seen among both private and public companies and local governments, as evidenced by an increasing number of new municipal waste management investment projects and waste processing plants. New legal and economic measures favor (and sometimes enforce) these trends. Natural and technological risks and hazards are both diverse and important in terms of impacts in the Carpathians, and seem to become as well increasingly inter-related. Some accidents involving casualties and environmental pollution are produced by obsolete technology and waste deposits, or are due to the transport of noxious substances. In certain situations, technological accidents (e.g. dam failure or explosions at some installations) may occur due to natural causes (floods, earthquakes).

Floods are the most challenging phenomenon for environmental security in the region. Several natural and human-related factors determine the degree of flood hazards. The negative impacts of floods (economic and environmental) have a trans-boundary, regional or even macro-regional character.

Despite rural culture being representative for the Carpathians, a dense network of small and medium-size urban settlements was formed over the centuries. The cities and towns and industrial "hot spots" in smaller settlements are a major factor in environmental pollution, as well as environmental hazards and risks. At the same time, they are the most vulnerable to natural/technological accidents from a socio-economic point of view.

The processes of suburbanisation and gentrification are typical of major cities today in development of the Carpathians region, including in the transitional countries. The extremely high speed of modernisation and globalisation tendencies is threatening the sensitive historical fabric/structures and traditional patterns of life in the Carpathians.

Many of the major environmental challenges Carpathian countries face in the early 21st century are of global or trans-boundary nature, including climate change, biodiversity loss, management of shared water resources, trans-boundary air pollution, trade in endangered species and waste disposal. As a result, there is an increasing need for countries to work together in partnership to tackle these challenges.



Current Policies in the Carpathian Region

Il of the Carpathian countries have in place as a minimum the following environmental policies, which can be categorized as:

• National Biodiversity Strategies, which set actions needed to ensure that natural values are protected for future generations and for sustainable development. The main objectives of these strategies are to protect and restore the proper functioning of natural ecosystems and to halt the loss of biodiversity.

• Environmental Strategies, which are complex strategies dealing with ecosystem protection. Basic obligations for other environmental sectors (water, waste, pollution, climate change, natural resources, quality of life) are in line with the nature conservation legislation. The main purpose of these strategies is to provide a framework and guidelines for decision-making processes and activities at international, national, regional and local levels, including public participation and awareness. The scope of the policy is to integrate ecological issues with sectoral policies, reinforce market-based mechanisms focused on environmental protection, modify financial support measures, promote the capacity building of institutions, increase public participation and ecological education, integrate spatial planning with environmental issues, and support research and technological development and international cooperation.

 Sustainable development strategies aim to identify the strengths, weaknesses, opportunities and threats related to the environmental, economic and social dimensions of sustainability, and find a means to integrate these in a coherent way.
Rural/agricultural strategies define and address the main problems, threats and opportunities for rural development. The overall goal of these strategies is to improve living and labor conditions in rural areas by means of economic growth, and taking into account the requirements of environmental protection. Operational goals of these strategies include: supporting sustainable rural development, increasing the competitiveness of agriculture, strengthening the manufacturing of food products, and improving the quality and safety of food. Carpathian EU member states are obligated to set and implement rural/agricultural policies. Ukraine has a law on the basis of State Agricultural Policy for the period until 2015, and there is no such policy in Serbia yet.

• Other sectoral strategies and policies as mentioned in Chapter 3 thematic sections. In addition, Carpathian countries which are EU Member States have Sustainable Development Plans to accede to the EU Structural and Cohesion Funds (CZ, HU, PL, RO, SK). In Serbia, many documents are still under preparation (e.g. rural/agricultural strategies, a National Environmental Action Plan, and a sustainable development strategy).

Policy Gaps and Limitations

None of the policies and strategies mentioned above are specifically designed for the Carpathian Mountains region. According to the Regional Environmental Center for Central and Eastern Europe (REC) and the European Acaddemy (EURAC; 2005), there is no mountain policy/ strategy in Carpathian countries except for Romania, where the Sustainable Development Strategy on the Mountain Region was developed according to the Law on the Mountain Region (347/2004).

The REC and EURAC (2005) have identified a lack of coordination at the regional level in implementing environmental policies in all Carpathian countries. This situation is aggravated by a lack of specification of responsibilities, leading to difficult implementation at the regional level. Sectoral policies involving several ministries in their implementation require increased cooperation. A lack of capacity (including lack of financing) also leads to weak implementation of such policies. The REC/EURAC National Assessments of policy, legislative and institutional frameworks related to the Carpathian Convention also show some contradictions between current regional policies being implemented in the region, and the goals of the CFC. For instance, national strategies on water management promoting hydro-technical actions/ constructions would need to comply with sustainable development and biodiversity conservation requirements. Biodiversity conservation and nature protection are not seen as the main priority in the region; economic development and interests prevail, and more financing is needed in many Carpathian countries to support biodiversity monitoring and preservation.

Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes are in place in many countries, but their findings are not often taken into account, and public participation is often missing in this process as well. The process of transposition of EU legislation into national laws is very complicated due to a lack of dialogue and information-sharing between the state and other stakeholders. Insufficient communication in this area means that some positive aspects of the proposed legislation are misunderstood and the public remains generally uninformed. Even if public awareness strategies are in place, they are often neither very effective nor efficient. Thus, public understanding of environmental policy and environmental issues in general needs much strengthening.

Environmental risks such as floods need more attention from decision-makers, and more research, monitoring and early warning systems, as well as appropriate financing are necessary for countries to adapt to flood impacts and mitigate flood damage. Other environmental risks such as droughts, soil degradation and erosion, landslides and mudflows need to be addressed by proper measures and in the broader context of global and regional climate change.

In order for Carpathian regional development to become sustainable, more environmentallyfriendly practices and technologies will need to

be implemented, along with appropriate policies to support sectoral developments such as renewable energy sources, sustainable forest management, sustainable tourism, organic farming and improved public transport. Sustainable development of the mountain space implies the establishment of natural systems of protected areas (national and natural parks, nature reserves and biosphere reserves). Bringing the management of protected areas in line with international regulations, and primarily with the EU acquis communautaire, calls for the ecological reconstruction of degraded areas and for permanent efforts to identify and protect valuable landscapes and biodiversity. Regional sustainable tourism strategies should be designed to take into account the specificity of the mountain region and specific threats to which the mountain environment is exposed.

A main thrust should be to develop a high-quality environment by means of sustainable natural resources and heritage management. In particular, this should be carried out by: developing joint incentives and actions for managing natural areas, protected areas and landscapes; developing joint actions for improving environmental quality (e.g. air, soil, water); developing and implementing joint strategies and policies for the sustainable use of natural resources and heritage; rehabilitation of degraded areas such as former mining sites, contaminated sites and brownfields; and sustainable development strategies, which should put more emphasis on assuring sustainable transport and energy-efficient transportation systems. Incentives to promote the use of biofuels (ethanol and biodiesel) should be designed and implemented in line with EU policies, in order to comply with EU recommendations on biofuels and as a means of mitigating climate change. These should also take into account both the positive and negative effects that the increased production and consumption of biomass can have on biodiversity and human well-being.

Lastly, sustainable development cannot be achieved in the region without proper consideration of cultural values and heritage. Most Carpathian countries have general cultural policies at the national level which do not specifically focus on the Carpathians' rich cultural heritage and traditional knowledge. There is a need for a strategic document defining the concept of cultural policy for the region, and a strategy, programme and action plan for national and regional cultural development. All these policy developments should take into consideration the provisions of the CFC and be based on an intersectoral approach.





5.3 Future Policy Framework – Options for Action

o preserve what is unique about the Carpathians while increasing the region's sustainable development capacity will require a full mix of coherent and complementary policies. Thus, it need to be considered that future policies influencing the Carpathian region will be conceived and implemented at the following levels:

- Global and regional (conventions)
- European Union (EU legislation)
- (Sub-)regional (e.g., the CFC)
- Bi-/multi-lateral cooperation
- National
- Sub-national
- Local

The CFC constitutes an additional legal framework for implementing global and regional conventions, especially the Convention on Biological Diversity (CBD) and United Nations Framework Convention on Climate Change (UNFCCC), as well as relevant UN Economic Commission for Europe (UNECE) conventions (e.g., the Convention on Long-Range Transboundary Air Pollution (LRTAP) and Aarhus Convention) and the European Landscape Convention. Furthermore, a more concerted and efficient use of existing policy initiatives, funding, scientific research and information to maintain and enhance biological and landscape diversity in the Carpathians is encouraged by the Pan-European Biological and Landscape Diversity Strategy (PEBDLS).

A useful guideline for future policies related to the Carpathian region could be based on the "Policy Guiding Principles" referred to in the renewed EU Sustainable Development Strategy, as follows:

- Promotion and protection of fundamental rights
- Solidarity within and between generations
- An open and democratic society
- Involvement of citizens
- Involvement of businesses and social partners
- Policy coherence and governance
- Policy integration
- Best available knowledge used
- Precautionary principle applied
- Polluters made to pay

The EU's common policies and legislation will considerably influence national policies of the Carpathian countries. Particular actions and related results will be achieved by implementing sub-national and local plans, programmes and projects.

On the sub-regional level, the CFC unites the seven Carpathian countries in a unique partnership, providing a trans-national framework for cooperation and multi-sectoral policy integration, an open forum for participation by stakeholders and the public, and a platform for developing and implementing trans-national strategies, programmes and projects for environmental protection and sustainable development.

Some of the major environmental issues shaping the region's present and future development are related to the following (in no particular order of priority):

Continuing fragmentation of habitats, accompanied by destruction of important biological corridors (new infrastructure is one of the causes of habitat loss and fragmentation, and species loss in the Carpathians);

• Changes in land ownership (national to private and implications for resource management and exploitation) and the increasing role of local self-governments in deciding on development decisions/policies in their areas (frequently opting for short-term, quick-profit goals);

 Impacts of mass tourism and recreation, as well as tourism infrastructure (resorts, ski lifts) on protected areas;

• Forest management (timber harvesting and international timber trade);

 Increased flood risk resulting from exploitation of forest resources, degradation of wetlands, reduction of flood areas alongside regulated rivers, and other technocratic and unwise water management practices;

• Air pollution resulting from switching from cleaner to more polluting heating fuels in communal use (oil/gas to cheaper, poor-quality coal);

 Growing amounts of municipal waste resulting from greater urbanization and consumption habits of increasingly consumer-oriented societies;

• Development of water supply, sewage and water treatment infrastructures;

• Emergence of new categories of hazardous chemicals;

• The increasing role of local democracies and citizens' participation in local issues;

• Growing pesticide use (after initial recession in high-intensity farming, there is a "rebound" to chemistry-loaded farming);

• Two-way material flows across the Carpathians and illegal cross-border transport: natural re-

sources, timber, CITES-listed species, secondhand technology (PCs, mobile phones, old refrigerators) and wastes.

Initiatives need to be taken to tackle all these issues of major importance for the Carpathian region, including in the following areas:

• There is an increasing need for countries to work together in partnership to tackle a variety of challenges, implement EU policies in order to create important opportunities for biodiversity conservation through the various EU programmes, strengthen cross-border co-operation including protected areas and coordination of different development plans, integrate specific mountain issues when designing National Development Plans (NDPs) in accordance with the principles of the CFC, and promote integrated cross-sectoral rural planning and implementation of plans.

• The Natura 2000 Network and integrated river basin planning (Water Framework Directive, WFD) should provide a policy structure for truly cross-sectoral land use planning and management policies in order to improve biodiversity conservation, water management and water quality.

• Another challenge is to integrate the different processes and instruments pertaining to land use in the region. This means ensuring that the adoption and especially implementation of policies such as Natura 2000, the Common Agricultural Policy (CAP), WFD, forestry-related, social and other policies are implemented in a way that they reinforce, rather than contradict each other.

• The enhancement of trans-European transport capacities should be accompanied by impact assessments reflecting long-term effects on natural land uptake, and biodiversity, urban development, air pollution and climate change.

Natural and technological risks and hazards also represent major threats to the people living in the region. Countries would need to focus on reducing risks and impacts of both natural and man-made hazards by coordinating practices of integrated risk management between various fields and sectors (spatial planning, industry, transport, infrastructure, forestry, water supply etc.). This could be achieved by: conducting, improving, integrating and harmonizing risk assessments and risk management standards; developing and elaborating strategies against hazards and for joint risk management plans; developing tools and approaches for mitigation and management of the impacts of climate change and other risks.

In order for Carpathian regional development to become sustainable, more environmentallyfriendly practices and technologies need to be implemented, and sustainable initiatives in energy should be introduced.

• Energy consumption and energy intensity showed decreasing trends in the Carpathian area in the last ten years (excluding Ukraine); however, final energy demand is growing. Therefore, technological improvements are needed to reduce the adverse impacts on environment linked to activities in the economic sectors of energy production, industry, housing and transport.

• The current development pattern in the Carpathian region is leading to loss of traditional knowledge, livelihoods, practices and values. It is therefore critically important that culturally sustainable and coherent policies be formulated and implemented for the Carpathians, in order first to slow, then halt and gradually reverse this trend. The countries need to promote and maintain Carpathian cultural identity and diversity, and strengthen linkages between urban and rural areas, promoting a wider 'Carpathian space' and political power.

Rural de-population menaces the traditional character of the Carpathians countryside. Policy measures must be implemented, and incentives developed, so that the people remain in their villages as guardians of the landscape, traditional knowledge and livelihoods.

Rural policies should aim at sustainable farming, food security, biomass utilization, expansion of sustainable tourism and small businesses, support the conservation of traditional breeds and species, and carefully control and monitor any introduction of GMOs into the Carpathians, assuming this occurs at all.

• The CFC and integrated sustainable development policies should stimulate rural diversification activities aimed at providing realistic marketing for the promotion of rural services such as eco-tourism, ecological farming and traditional products in order to produce "quality more than quantity".

• Public participation should be a prerequisite for most planning processes, helping to assure the proper involvement of stakeholders. Awareness-raising on policy and decision-making processes for civil society should be promoted and achieved.

• Capacity building for Carpathian institutions and stakeholders should be promoted and developed. It should include an inventory of national institutions that specialize in mountain issues to increase regional networking and informationsharing.

Improved education, communication and public participation, together with environmental democracy, could be used as underpinning processes leading towards a sustainable environment and development path in the Carpathians.

Biological and landscape diversity remain two of the greatest assets of the Carpathian space, and this Carpathians' "natural capital" is fundamental to the region's future sustainable development. However, having a knowledge base and welldesigned proposals for the further preservation and enhancement of the unique natural and cultural heritage of the Carpathian Mountains region are only necessary, but not sufficient conditions, to see that these goals are attained. What is additionally required is both political will and eventual action, as well as related resources for implementing beneficial measures, in order that effective and efficient policies might succeed.

Like other "mountain spaces" (the Alps, Caucasus, and Pyrenees Mountains) in or near Europe, the ultimate fate and development path of the Carpathians is in the hands of multi-national stakeholders; in the latter case, a "jurisdiction" that overlaps seven national entities with a similar past but a more varied present. In several Carpathian countries, the national capital is far from the mountains, and other than from an economic perspective (general development, often involving resource extraction and/or tourism, both having infrastructural implications) may not receive much attention. That is, preservation of the "natural" environment may be accorded a lower priority than poverty eradication, land development, energy provision etc. It will remain a major challenge for the Carpathian countries to work together in achieving a more sustainable form of development than has often been accomplished until now, partly through the recognition that "development" and "environment" need not be considered opposing (or exclusive) goods. Rather, by the proper (eco-

nomic) valuation of the natural environment and wise investment in the same, it is likely that a sustainable future path for the Carpathians can be designed and achieved.

Only through international cooperation and maintaining a holistic view of the Carpathian environment, and a common (or at least not contradictory or conflicting) path of development will the governments and peoples of the region succeed in building a viable future within the "Carpathian space". This Report has attempted to highlight both this overall perspective and many points of departure within multi-scale policy frameworks (from local to international) to accomplish, if not the "Carpathian dream", the realization of a future which values and preserves the unique character of this region, while simultaneously fostering enhanced human wellbeing in a sustainable environment.

References

- Alexandrescu, A., Geicu, A., Cuculeanu, V., Marica, A., Patrascu N. (2003). Climate change impact on forestry ecosystems. Vulnerability and adaptation measures. In *Potential impact of Climate change in Romania* (ed: V. Cuculeanu), Ars. Docendi, p. 101-128
- Jankovský, L., Cudlín, P. (2002). Dopad klimatické změny na zdravotní stav smrkových porastů středohor. *Lesnická práce* 81(3), 106-107
- Lapin, M., Melo, M., Damborská, I., Gera, M., Faško, P. (2000). Nové scenáre klimatickej zmeny pre Slovensko na báze výstupov prepojených modelov všeobecnej cirkulácie atmosféry. Národný klimatický program SR 8, 5-34
- REC/EURAC (2005). Questionnaire for the assessment of the national policy, legal and institutional frameworks related to the Carpathian convention