

# INTRODUCTION

Legacies, Challenges,  
and New Beginnings



*Zbigniew Bochniarz and Gary B. Cohen*

Just sixteen years ago, the dismantling of the Cold War division of Europe began with parliamentary elections in Poland. Then, like dominos, the other communist Central European countries—Hungary, East Germany, Czechoslovakia, Bulgaria, and Romania—followed, shattering the foundations of the oppressive, totalitarian system and proclaiming democracies and market economies. Sixteen years is but a moment in the long history of Central and Eastern Europe, but for historians of the region the last twelve years of the twentieth century will be remembered as equal in importance to the first years of building independent statehood after World War I. Despite some differences, Czechoslovakia, Hungary, and Poland followed a similar path of development during the last century. Variations were caused by their own internal factors, but outcomes were determined to a great extent by larger geopolitical forces. Today they are jointly entering the twenty-first century with excellent opportunities for future development supported by secure borders with NATO safeguards, democratic political systems, reformed economies, improved environmental quality, and membership in the European Union. Austria, in contrast, had a much different experience as a neutral state during the Cold War, open to the West but trying also to maintain relations with its communist neighbors and even finding some advantage as an almost invisible “middleman” in facilitating confidential hard-currency transactions between communist-bloc members. Since 1989, Austria has supported the transitional processes and mediated these countries’ integration into the European community. It has developed closer relations with them in several areas, including environmental concerns in the Danube basin.

Significant environmental challenges accumulated in Central and Eastern Europe (CEE) during the Cold War era. Some of these had roots in nineteenth- and

early twentieth-century economic development, but the particularly rapid industrial development strategies pursued by the communist governments in their first two decades created a host of long-term problems. There was massive pollution of water, air, and the soil in many localities. Greenpeace reported in the late 1980s, for instance, that half of the eight hundred some Polish communities along the Vistula River had no sewage treatment facilities. Along more than 80 percent of that river's length, the water was too polluted for even industrial use, and as a result much of the fish in the Baltic Sea, into which the Vistula empties, was unfit for human consumption. The heavy use of soft coal contributed to serious problems with acid rain in many areas and decimated much of the once dense forests in the southern part of the German Democratic Republic, northwestern Czechoslovakia, and Polish Silesia—the “Black Triangle,” as the region was called in the international environmental literature. Bitterfeld in the GDR, the region of Katowice in Polish Silesia, and the older Czech industrial centers may have been the pride of communist industry in their respective countries, but the catastrophic environmental pollution in many of those localities caused major health problems for several decades before 1989. Environmental disasters, such as the April 1986 reactor incident in Chernobyl, Ukraine, or the cyanide spill in Romania into the Tisza/Tisa River in early 2000, only added to the environmental problems.

Increasingly during the 1980s the communist governments had to recognize the mounting environmental difficulties and at least promise improvements, but their declining economies could ill afford the costs of remediation and alternative technologies. The limitations of international economic cooperation in communist CEE, whether on a bilateral basis or through the Council of Mutual Economic Assistance (CMEA or Comecon), also made it extremely difficult to take any of the remedial steps on a regional basis that were clearly needed. Unrelieved, the environmental problems became yet another source of popular discontent and found their way into the agenda of dissident groups. Most famously in Bulgaria, for example, environmental complaints fueled the development of a vigorous oppositional group, which began in 1987 and eventually organized on a broader national basis as Ecoglasnost.

Austria enjoyed generally higher environmental standards in the 1980s and early 1990s, but the environmental and general economic conditions of its communist and postcommunist CEE neighbors created significant challenges. During the Cold War, Austria pursued bilateral economic and trade relations with communist neighbors wherever possible, but there were recurring frictions. The seasonal exchange of electrical power between Austria and Czechoslovakia proved mutually beneficial, but the Czechoslovak government's construction of a new nuclear power station after the early 1980s in Temelín, in southern Bohemia near the Austrian border, provoked continuing friction with Austria.

Another case of the failure of international cooperation on a matter of critical environmental and economic importance for the region was the Gabčíkovo-Nagymaros Barrage System, a project initiated in 1977 by Czechoslovak and

Hungarian communist authorities to control the flow of the Danube between Bratislava and Budapest and to generate hydroelectric power. Faced by the serious environmental problems that were likely to ensue and by rising public opposition, the Hungarian parliament eventually voted to withdraw from the project in October 1989. The Czechoslovak authorities continued with their section of the project despite Hungarian opposition. In May 1992, Hungary terminated its treaty with Czechoslovakia for the project and dismantled the already built part of the system on the Hungarian side near Visegrad. In April 1993, Hungary and Slovakia submitted the disputed case to the International Court of Justice in The Hague. In the decision issued on 25 September 1997, the Court recognized the significance of the integrity of the ecosystem while finding that Hungary had violated the 1977 treaty by abandoning the project and Czechoslovakia had breached it by carrying out its "provisional solution."

After 1989, the new democratic governments of CEE pledged to improve environmental quality by implementing higher standards of environmental protection, more effective economic instruments, and new strategies of sustainable economic development. For Austria and the postcommunist governments alike, accession to the European Union (EU) has raised even further the environmental standards that must be met. Austria, which joined the EU in 1995, and most of the neighboring CEE states, which joined nine years later in May 2004, must deal now with a whole new body of environmental regulations coming out of Brussels.

Today's situation is completely different from that of just sixteen years ago, at the end of 1980s, when the region faced deep political, economic, and environmental crises. How did it happen that during such a short period the situation has undergone such dramatic change for these countries? What were the major forces behind those changes? Are the changes sustainable? How have these countries constructed the policies and institutions that facilitate such dramatic changes? What are they bringing to the EU? What can the CEE countries learn from the experience of closer and more recent EU members such as Austria? Those and many other questions set the stage for an international academic conference at the end of September 2002: "The Environment and Sustainable Development in the New Central Europe: Austria and Its Neighbors," organized at the Hubert H. Humphrey Institute of Public Affairs at the University of Minnesota by the Center for Austrian Studies in cooperation with the Center for Nations in Transition.

This book is a collection of about one third of the papers presented at the conference, carefully selected by the editorial team. The main criteria for this selection were the novelty of ideas and findings coming from the research papers and their often interesting methodologies, revealing unknown aspects of development in Central Europe.

This volume begins with an overview of the problems of sustainable development in Robert Wilkinson's provocatively titled essay "From Communism to Climate Change: The Sustainability Challenge and Lessons from Central Europe." Working for several years as an academic administrator in the heart of Central Europe, Budapest and Prague, Wilkinson was not only an attentive observer but

also a critical analyst of development in this region. Contrary to the common belief in the West, he argues that Central Europeans, despite their tremendous environmental, economic, and social problems, “have much to teach the world.” In particular he points to the lessons from Central Europe’s transition in the changing role of women and governmental priorities related to the environment.

In Part One, the issue of **The Environment as Policy Priority** is explored by the American-Polish team of Sandra Archibald and Zbigniew Bochniarz in their chapter on “Assessing Sustainability of the Transition in Central European Countries: A Comparative Analysis.” The authors challenge the popular opinion in environmental circles, promoted by Nobel Prize laureate Joseph Stiglitz, among others, that rapid economic liberalization of countries in transition undermines their economic and social sustainability. Archibald and Bochniarz conduct a careful trend analysis for twenty-five countries in transition and apply the econometric model of the Environmental Kuznets Curve to argue that fast liberalization did not impede the sustainability of the ten Central and East European countries (CEEC10) selected for accession to the EU. On the contrary, rapid liberalization was one of the major sources of their significant improvement in economic, social, and environmental performance. Early liberalizers from these ten countries confirmed the hypothesis that fast liberalization, accompanied by carefully designed institutional reform, human capacity building, and the application in environmental policy of certain market-based-mechanisms (MBM) that mobilize local resources—mostly pollution and user fees and product charges—could contribute significantly to sustainable development. Making the environment a top priority for transformation policies did not cause any harm to their economies. This is an important lesson, applauded in OECD and World Bank publications, that is still not understood by many political and business leaders.

Significant improvements in environmental, economic, and social performance paved the way for eight of the CEEC10 to join the European Union on 1 May 2004, and for the other two, Bulgaria and Romania, to be potentially ready for EU membership by 2007. The question, however, is whether the positive trends generated by radical transformation and industrial restructuring and driven mostly by national policies and local resources will be sustained after accession to the EU and their progress toward sustainability secured. This and several other questions are the subject of the next essay, contributed by American authors Stacy D. VanDeveer and JoAnn Carmin, on “Sustainability and EU Accession: Capacity Development and Environmental Reform in Central and Eastern Europe.” The authors explore one of the least publicized aspects of EU enlargement, the environmental implications of “Europeanization” of accession countries’ institutions, policies, expectations, and beliefs. They conclude that a successful enlargement process will depend on meeting three challenges: (1) developing appropriate institutional, human, organizational, and technological capacities for the environment, (2) securing sufficient financial resources, and (3) sustaining positive trends and further improving the quality of the environment. It is worth noting that these

challenges face not only all new and future EU members, but existing members as well. Among some EU members, there is insufficient compliance with environmental standards and laws. Overall, the quality of the environment in the EU is not improving or is improving only very slowly, and it is at great expense that members meet all environmental regulations, particularly those based on the “best available technology” (BAT). EU members face the additional challenge to learn from CEEC10 experiences, particularly with implementation of more MBM (instead of BAT) that can significantly reduce the cost of policy implementation for industries and boost innovative institutional reforms.

The sustainability issues facing both CEEC10 and established EU members are further explored by Edward M. Bergman within the framework of distinct localities and regions in his research, focusing on “Sustainability of Clusters and Regions at Austria’s Accession Edge.” The author starts by challenging traditional definitions of “sustainability” and “clusters” in the search for answers to such basic questions as what “sustainable cluster” means, and when does a cluster reach sustainability. For Bergman, cluster sustainability means the continued generation of innovation and a secure competitive position within a geographically bounded business network. These are the critical issues for local and regional prosperity in growing competition in more and more globalized economies. This is why, he argues, in contemporary development theory and the policy of EU members, the concepts of industrial clusters and decentralized regional development capacities play such an important role, contrary to the previous theories and practices of CEE countries under communist rule, which focused on centralized national economies. This is an important lesson for the accession countries which can learn from the positive Austrian and EU experiences how to boost and sustain economic development by promoting industrial clusters, particularly for small and medium enterprises, and building strong regional economies.

The second part of the book focuses on **The Economics of Sustainable Development** and contains two interesting papers on innovative institutional and policy reforms in the Czech Republic and Poland. The Czech team, composed of Jiřina Jílková and Thomas Chmelik from the University of Economics in Prague, presents an analytical picture of the development of “Greenhouse Gases Emissions Trading in the Czech Republic.” This has been a hot issue since the Kyoto Protocol on the reduction of greenhouse gases (GHG) triggered global debate and several surprisingly radical twists in policy positions, particularly in the United States and Russia. The authors present a well-documented background against which to analyze energy intensity and associated pollution trends in the Czech economy and other transitional economies and to evaluate the development of policies on global climate change. They explain major policy drivers in addition to the EU accession requirements. Having laid these foundations, they present a variety of policy options to tackle GHG reduction. The options include flexible mechanisms preferred by economists and business leaders, particularly emission trading and joint implementation, accompanied by air pollu-

tion charges, tax reforms with subsidies for renewable energy sources and conservation, and regulatory instruments.

The authors concentrate their attention on two basic mechanisms as the most critical for successful GHG reduction: emissions trading, as a main pillar; and joint implementation (JI), as a pilot project for climate change policy and a complementary mechanism. Due to the fact that the Czech Republic is a leader in JI among the CEEC10 with significant potential for further GHG reduction, the analytical contribution of Jilková and Chmelík offers an attractive lesson for other countries and suggests good practices to follow. What is probably even more significant is the clear message from the Czech authors that climate change is treated seriously in the Czech Republic as an important policy and business issue, which facilitates comprehensive responses from both government and business interests and has already attracted domestic and foreign investors.

The Polish team of Olga Kiuiła and Jerzy Śleszyński of Warsaw University also has an important message to share with their research on “Ecological Reform in the Tax System in Poland.” The authors, following some of the promising applications from Scandinavian countries, propose a comprehensive tax reform that will not increase the tax burden but will contribute to significant improvements in environmental, economic, and social sustainability. This is a great challenge, given the growing aversion to new taxes all over the world. Despite the fact that Poland developed the most comprehensive and effective emissions fee system in the 1990s, the external motivation from EU countries to develop further the environmental tax system encouraged research and preparation of a new tax reform. Internal factors, too, were crucial. These included significant institutional weakening of the existing emissions fee system after the implementation of the 1999 administrative reform and the need to raise about USD 30–50 billion for implementing EU environmental requirements.

The main goal of the proposed tax reform is to reach a double dividend: improve both environmental quality and economic efficiency. The authors apply a complex general equilibrium model to simulate six different scenarios of tax reform. The research reveals that three of the proposed scenarios could secure long-term, environmentally sound economic growth with significant reduction of unemployment. Now the challenge is to convince the policy makers in Poland to implement it, as their counterparts have already done in some other EU countries.

The third part of the book is devoted to **Water Policies and Institutions** and their sustainability. It begins with two contributions devoted to environmental disasters, which also treat broader, related concerns: institutional sustainability, popular values and attitudes, traditions and readiness to change, and the role of environmental disasters in shifting paradigms. The first contribution comes from the Czech scholar and environmental activist Václav Mezřický and the second from an international team of American and Hungarian scholars including Jim Perry, Eszter Gulácsy, and László Pintér.

In the first essay, entitled “The Czech Republic: From Environmental Crisis to Sustainability,” the author uses the case of the 2002 flooding, the worst in the

last 150 years, as a starting point for his analysis of the concepts of sustainability over several decades. Although there was a large body of research reports, policy documents, and publications raising environmental awareness and educating policy makers in the Czech Republic, he argues that neither the concepts nor the policies implemented took into account the possibility of such a major environmental disaster. The tragic events of 2002 shocked the country and have heightened environmental awareness significantly, opening a window of opportunity to correct previous concepts and redesign institutions and policies that will be based on correctly defined sustainability principles and will apply proper methodological concepts, e.g., environmental space or footprint. Although policies and institutions are very important for sustainability, Mezřický concludes that without fundamental changes in the values and attitudes of individuals, significant breakthroughs cannot happen.

The second contribution in this section focuses on “The Tisza/Tisa Transboundary Environmental Disaster: An Opportunity for Institutional Learning.” Here again, as in the case of the 2002 Czech flooding, the authors have researched an environmental disaster, the cyanide spill from a gold mine near Baia Mare in Romania, which poisoned the Tisza/Tisa River and caused catastrophic damage downstream in Hungary. In this chapter they analyze the causes, identify institutional and policy deficiencies, and propose policy modifications. They find that the Tisza/Tisa River is a typical case of a transboundary waterway in the transitional countries and for that reason should be treated as an important lesson for all of them. From the standpoint of environmental management, they argue that technical knowledge alone is insufficient for sound decision making, which requires also basic knowledge of the institutional, local, and national cultures affecting the individual decision makers. These individuals, shaped often by decades of anonymous, hierarchical, centralized, and nontransparent decision making in the old system, were then expected to be accountable, participatory, and transparent. This presents a serious challenge to the individuals and the society. Besides the inherited deficiencies at the individual level, the disaster revealed many gaps in institutional arrangements and policy measures at the national, regional, and local levels in Romania and Hungary that could have parallels in other countries.

One of the solutions for filling the existing gaps in institutional and policy arrangements in CEE is to follow EU legislation, as Austria has done since 1995. According to the essay by Wilhelm R. Vogel from the Austrian Federal Environment Agency, “Austria and the EU Water Framework Directive,” the major challenge was faced not at the beginning of membership, but rather with the 2000 Water Directive requiring restructuring of water management in all member states and the introduction of new quality standards and new approaches to management. Vogel argues that the lessons learned by Austria before accession and during the implementation of new EU regulations could be beneficial to the CEEC10 in the near future.

Managing environmentally sound transboundary resources is discussed again in the essay by James B. Dalton on “The Western Bug River: UNECE Pilot Proj-

ect.” The significance of this shared resource, the Western Bug River, derives from the fact that this river marks the NATO border, and since May 2004 also the EU border. Pollution from upstream is discharged directly into the Western Bug and its tributaries in Ukraine and in Belarus, which can endanger the environmental security of Poland, a NATO and EU member. In his essay Dalton explores both scientific data and current institutional arrangements on both sides of the river for preventing such pollution, based on his own research and the United Nations Economic Commission for Europe (UNECE) Interim Report on the Water Convention Pilot Project Programme on Transboundary Rivers. Dalton concludes that the agreements signed by Poland and Ukraine are a good foundation for preventing environmental disasters and bringing stability to the river’s management, so long as they are fully implemented.

The final essay on water resources, “Wastewater Treatment in the Postcommunist Danube River Basin,” contributed by the Slovak scholar Igor Bodík, also focuses on a transboundary river. This essay deals with the whole Danube basin, beginning with a presentation of different aspects of the economic, social, and geographical characteristics of all thirteen Danube River Basin (DRB) countries. Then Bodík moves to a brief description of water supply and use patterns, which builds a foundation for wastewater analysis. This whole analytical work leads Bodík to address policy and institutional issues and recommendations.

The fourth and last part of the book is devoted to the troublesome issue of **Agriculture and Rural Development** in CEE. It begins with Anthony J. Amato’s chapter on the eastern Carpathian region of Ukraine, entitled “‘Thinking Unlike a Mountain’: Environment, Agriculture, and Sustainability in the Carpathians.” This interdisciplinary study starts with a historical analysis of the Galician Hutsul region and then moves through geographical and ecological characteristics to present historical trends in agricultural activities. It tells the story of almost two hundred years of human pressure on a unique natural environment, leading to its decline and the disappearance of species characteristic of the region, such as European bison and bears. The Soviet legacy for regional agriculture and forest management is shrinking biodiversity, which was exacerbated after Ukraine’s independence in 1991 by the introduction of a market economy without appropriate institutions and policies. Despite all these setbacks, Hutsul agriculture, Amato argues, exhibits strongly resilient characteristics, durability, persistence, and high energy efficiency, which may present a chance for survival in the twenty-first century to this region and its unique environment and culture.

Survival and sustainability issues are also discussed by Slovak scholar and community development leader Slavomíra Mačáková. Her essay, “New Approaches to Sustainable Community Development in Rural Slovakia,” focuses on the country’s poorest, most marginalized and vulnerable ethnic group, the Roma population. The demographic situation shows that Roma make up 8 to 9 percent of the Slovak population, one of the highest shares in Europe. This minority suffers from a very low level of education, poor health conditions, and high long-term unemployment. Yet, despite all the problems and obstacles that lead many Roma



to hopelessness and despair, there is a chance, argues Mačáková, based on her three years of successful experience in the Spiš region, to empower the Roma population and move them step by step out of poverty toward a more sustainable and prosperous life. This is a very special and most valuable object lesson, not only for the other nations in transition but also for developed nations facing problems with their minorities.

Another aspect of rural sustainability is explored by the Czech-Canadian team of Antonín Vaishar and Bryn Greer-Wootten in their chapter devoted to “Sustainable Development in Moravia: An Interpretation of the Role of the Small-Town Sector in Transitional Socioeconomic Evolution.” The authors begin by analyzing the theoretical underpinnings of the “new regionalism” that is emerging along with a decline in the role of nation states due to globalization and the growing significance of sustainability concerns. Then they offer a comprehensive analysis of the small-town sector (settlements with fewer than 15,000 inhabitants) in Moravia, stating that there is a future for these towns in facilitating sustainable rural development. One of the interesting conclusions they advance is that small towns have a “mediating influence” between urban and rural areas that will affect the future Czech population structure and its sustainability.

Finally, the sustainability of rural areas in Hungary is assessed by the environmental leader and educator Judit Vásárhelyi in her essay called “Building Local Sustainability in Hungary: Cross-Generational Education and Community Participation in the Dörögöd Basin.” The author first describes the country’s population distribution, which is characterized by a significant concentration of urban communities around the capital city, and outlines its consequences. Then she examines the environmental problems threatening local communities. Based on her experience and research, Vásárhelyi argues that through participatory processes a local community can learn about environmental threats and generate sound responses. The case of the Dörögöd basin illustrates her arguments.

This fourth part of the book, devoted to rural communities, shows that despite the well-recognized crises of rural areas, there are still many promising cases that illustrate opportunities to overcome crisis situations and exemplify good practices. The essays in this section, as well as in the previous sections of the book, offer weighty yet optimistic findings. Crises and even serious environmental disasters need not discourage people from setting ambitious goals to improve their quality of life and to mobilize their own resources. The citizens of CEE show that human creativity in the quest for innovative solutions is a powerful force that can overcome economic and technological barriers and—even more challenging—barriers of inertia and conservative thinking. The hard-learned lessons in CEE reaffirm that there is much that both developed and developing countries can learn from this region. If this book helps to propagate such lessons, it will give great satisfaction to its authors and editors.