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**Sustainable Agriculture in
Central and Eastern European Countries**

The Environmental Effects of
Transition and Needs for Change

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Series Editors' Preface

In agricultural economics, transition in Central and Eastern Europe is mainly associated with issues such as stabilisation, liberalisation, privatisation and restructuring. The successes and failures of these institutional and political reforms are predominately evaluated through the lens of traditional indicators of economic performance, e.g., by measuring changes in gross domestic product per capita.

The impact which transition has on the natural environment, or more generally on sustainability, has received far less attention. It is, perhaps, an irony that countries which have faced the biggest economic decline, e.g. Russia, have also been among the largest contributors to the recovery of the global environment, e.g., by the reduction of CO₂ emissions. A similar phenomenon can be observed in agriculture, where output decline was associated with a significant decrease in the application of fertilisers and pesticides, and sometimes also in agricultural land use.

It seems, therefore, that transition has opened a window of opportunity for environmental protection and sustainable development. Indeed, democratic reforms during transition have often unlocked the demand for environmental improvement and led to more effective environmental policies and institutions.

However, socialism, quite generally, has left a dual environmental heritage; hot-spot environmental degradation coexists alongside a remarkable wealth of biodiversity and landscapes. The challenges for transition countries are, therefore, to handle hot-spot problems, to protect biodiversity and landscapes, and to decouple pollution levels from economic output; this will lay the foundation for the sustainable development of agriculture.

This book is a contribution toward meeting these challenges. It is based on the ACE Phare Seminar "Sustainable Agriculture in Central and Eastern Europe", which took place in September 2001, in Nitra, Slovakia. More than 70 researchers, most of them from Central and Eastern Europe, had the unique opportunity to meet and exchange knowledge and experiences on the question of how transition affects the environment, and what kind of political and institutional changes are needed.

The book contains many interesting insights, based on both theoretical and empirical research. Nevertheless, it represents a work in progress. It is still a tremendous task to assess the impact of transition on the environment and to develop workable strategies to create comprehensive policies and institutions for sustainable agricultural development in Central and Eastern Europe.

We hope that this book will find interested readers, and that it will contribute to enlarging the network of researchers working toward the sustainable development of agriculture in Central and Eastern Europe.

Berkeley and Berlin, April 2002

Volker Beckmann and Konrad Hagedorn

Proceedings Editors' Preface

Lessons Learnt and Challenges Ahead - The Environmental Impact of Transition from the Perspective of Policies, Institutions and Farming Systems

Achieving sustainability and organising transition sometimes seem to be two conflicting tasks. On the one hand, the political and economic systems in Central and Eastern Europe are changing radically from centrally designed to democratic societies with social market economies. On the other hand, natural and semi-natural environments are to be preserved in this process and protected from destructive anthropogenic influences. Sustainability implies comprehensive conservation aspects and transition implies system changes. Both sustainability and transition, however, unfold to a multiplicity of diverse components and processes, and the perspectives from which these can be observed are plentiful as well. In addition, these complex changes are affected by the European Union (EU) accession process. The CEESA (Central and Eastern European Sustainable Agriculture) project has called for this Seminar to exchange knowledge and investigate the question of how sustainability can be achieved in the agricultural sectors of transition countries from the perspectives of:

- (1) Agri-environmental policies and the EU accession process,
- (2) (Mainly local) institutions of sustainable resource use, and
- (3) Different types of farming systems in Central and Eastern European Countries (CEECs).

From the institutional perspective, the leading question is: "How do people establish and arrange rules and governance structures to coordinate their interactions with respect to natural resource preservation?" During the socialist era, the general institutional arrangements and governance structures were given by a centrally designed and ideologically driven state. However, natural ecosystems and the resources they provide ignore political systems and borders. Therefore, economic, social and political systems need to be designed in a manner that allows for responding to environmental changes. Environmental policies aimed at minimising environmental degradation and sustaining ecological processes have some important dimensions which need to correspond to the characteristics of the ecosystem. The textual dimension refers to appropriate measures and metering of the instruments applied, the temporal dimension refers to the virtue of the environmental measures over time, and the spatial dimension refers to the appraisal and measurement of local and regional impacts.

Before transition, most CEECs formally had environmental policies with clearly defined targets. However, they were rather ineffective, i.e. concepts, and strategies for implementation of these targets were poorly developed. Environmental laws were hardly applicable because of missing data from environmental monitoring (which were often kept secret) and the difficulty of interfering into the quota plans of the economic units. The environmental public authorities had little influence, and public participation in environmental decision making was hardly possible. The constant supply deficiencies resulted in an incentive system in which the relevant players of the political system often overlooked environmental laws in favour of precious consumer goods as “rewards” from representatives of the industry. Officially, the environmental problems of the formerly socialist CEECs were non-existent, and because of the simple design of a hierarchical, top-down state system with a lack of public participation, the complexities of the economic and environmental problems were invisible. Short-term fulfilments of quantitative economic targets, deficiencies in technological progress and a faulty incentive system characterised an economic system which was not designed for qualitative growth. Improvements and innovation of both the political and economic system had little chance, as the necessary signals from economic, societal (public demonstrations and controversial discussions, growing moroseness) or environmental indicators had no effect on the general system which seemed resistant to change.

Today, after a decade of transition of the political and economic systems in CEECs, there is still a need for comprehensive agricultural development strategies, policy instruments and effective institutional arrangements that comply with the requirements of sustainable development. After the breakdown of an ideological and political system which stipulated “what ought to be” instead of dealing with actual problems, farmers were left with the remains of the former state, and they had to organise themselves in correspondence with the complexity of ecosystem characteristics. In a situation where people have unequal power resources, the appropriation of resource attributes which can be privatised (e.g., land titles, physical parts of irrigation systems) occurred faster than other public resource functions which require different forms of governance structures for successful long-lasting management - governance structures which require public participation, a civil society and social capital as a ground to evolve on. The privatisation process during transition is therefore far from establishing efficiency as part of sustainability, because the bulk of agri-environmental resource features escape the governance capacity of the market as a coordination mechanism for establishing efficiency and sustainability. More diverse and specialised governance structures (e.g., for monitoring and sanctioning) which cover the many different components of the bundle of property rights connected to the resource features (numerous economic and ecological features are connected to particular cost and benefit streams) are needed. Only under these conditions of effective property rights and adequate institutional arrangements can sustainabil-

ity evolve over time. The findings from the papers presented provide evidence that this process will lead to a diversity of different institutional arrangements, rather than universal concepts.

EU accession is another influence on the transition process and on the process towards sustainability in the agri-environmental area. From the papers presented at this Seminar it can be concluded that the overall perception is that EU accession is having a positive influence on both processes; this is because the adaptation of institutional structures provides local actors with additional duties, but also with incentives, which already now have positive effects on, e.g., biodiversity protection and water quality measures. This move towards a stronger influence from public authorities, and the possibilities of public participation in environmental decision making, are slowly being recognized. However, since many people, especially in rural areas, have more serious and urgent problems than nature preservation activities (earning their income for example), public participation in environmental decision-making will evolve slowly. Therefore, fostering the move towards sustainable development in the agri-environmental area in CEECs also requires serious investments in social and human capital of the rural population.

The theme of the Seminar 'Sustainable Agriculture in Central and Eastern European Countries: The Environmental Effects of Transition and Needs for Change' expresses the need to understand multidimensional, complex cause-effect relationships between society, agriculture and the environment. This understanding is regarded as a necessity before recommendations can be given and alternative developments can be initiated. Understanding agri-environmental causalities is especially important in view of the ongoing EU accession process. From the perspectives of Institutions of Sustainability, Agri-Environmental Policies, and Farming Systems, the Seminar focused on three thematic areas: water, soil and biodiversity/landscape. Each thematic area within the Parallel Sessions was viewed from the perspective of certain transition processes. In Parallel Session A (Agri-Environmental Change and Institutions of Sustainability), the aim was to identify the causes of institutional changes and their effects on water, soil and biodiversity/landscape. The main objective of Parallel Session B (Determinants of Agri-Environmental Policies and Their Impact on the Environment) was to analyse the determinants of current agri-environmental policies and their effects on the environmental resources mentioned above. In addition, Parallel Session B sought to identify and assess opportunities for policy changes. Parallel Session C (Environmental Effects of Farming Systems in Transition and Indicators for Measurement) had two main objectives: first, to examine the natural, economic and political determinants of farming systems and assess their environmental effects, and second, to develop a system of indicators to capture the environmental effects of agriculture.

The ACE (Action for Co-operation in Economics) Phare Programme, which provided the funding for the Seminar, is part of the European Union's Phare

Programme. The Programme's aim is to provide opportunities for the exchange of knowledge and experience between academic and professional economists in the Phare countries and in the EU. The ACE Programme has promoted extensive cooperation on economic research projects such as the CEESA project. We hope that the Seminar in Nitra contributed to accelerate the transfer of know-how between Western and Eastern European countries and to facilitate the wider dissemination of policy relevant economic research.

Berlin, April 2002

Franz Gatzweiler, Renate Judis and Konrad Hagedorn

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Moreover, we would like to express our gratitude to all authors of the contributions, to the chairpersons, keynote speakers and discussants. Their intellectual input to the Seminar and the experiences shared by the participants during the discussions contributed to the exchange of knowledge between Western and Eastern European scientists.

We greatly appreciate the financial support from the Phare ACE Programme which provided the chance for many colleagues from Central and East European countries, as well as from West European countries, to attend the Seminar.

Berlin, April 2002

Renate Judis and Franz Gatzweiler

Table of Contents

Series Editors' Preface	v
Proceedings Editors' Preface	vii
Acknowledgements	11
Section 1 – Transition and Agri-Environmental Change – Identifying the Issues	1
1.1 The Evolution of Institutions of Sustainability in Transition <i>Franz Gatzweiler and Konrad Hagedorn</i>	3
1.2 Agri-environmental Policy Systems in Transition: Problems and Perspectives <i>Anett Zellei, Matthew Gorton and Philip Lowe</i>	17
1.3 Analysis of Environmental Impact of Farming Systems in Five CEE Countries <i>Stefan Bäckman, Timo Sipiläinen and John Sumelius</i>	31
1.4 Agri-environmental Challenges to Farming Systems in Transition <i>Stjepan Tanic</i>	43
1.5 New Horizons for Agri-Environment Policy in Europe? <i>David Baldock</i>	51
1.6 Sustainable Farming Systems in Central and Eastern European Countries <i>Jeffrey M. Peterson and David W. Norman</i>	65
1.7 Comparative Agricultural Success in Central and Eastern European Countries: Institutions and Social Capital <i>Cornelis G. van Kooten, Louis H.G. Slangen and Pavel Suchanek</i>	81
1.8 The Study of Human-Ecological Systems in the Laboratory <i>Elinor Ostrom</i>	99

Section 2 – Agri-Environmental Change and Institutions of Sustainability		115
2.1	Privatisation and Soil Drainage in Latvia <i>Peteris Busmanis, Aija Zobena, Inga Grinfelde and Inta Dzalbe.....</i>	117
2.2	Irrigation and Water Usage in Bulgaria during Transition <i>Ivan Penov.....</i>	123
2.3	Land Abandonment as a Threat to Wildlife and Landscape in Zones I and II of the White Carpathian Protected Landscape Area <i>Veronika Krumalova and Tomas Ratinger</i>	129
2.4	Environmental Effects of Transition: A Case Study of Land Conversion for Suburban House Building in Two Selected Provinces of Poland <i>Adam Wasilewski and Krzysztof Krukowski</i>	137
2.5	Sustainable Development of the Contaminated Areas Surrounding the Metallurgical Combine in Elbasani, Albania <i>Fatbardh Sallaku, Ilir Kristo, Seit Shallari and Parashqevi Rrapo</i>	143
2.6	Dry Flooded Land - The Problem of Collective Action in Post- Socialist Water Management Regimes - A Case Study in Brandenburg <i>Christian Schleyer.....</i>	149
2.7	The Price of Change - Implementation Structures for SAPARD in the Central and Eastern European Countries <i>Jan Sommer.....</i>	157
2.8	Agricultural Transition in Central and Eastern European Countries; An Empirical Analysis <i>Pavel Suchanek, Louis H.G. Slangen, G. Cornelis van Kooten and Rene van Oosten.....</i>	163
2.9	Constraints on Collective Action in Bulgaria's Irrigation Sector – Empirical Results from the Village of Varbiza <i>Insa Theesfeld.....</i>	169
2.10	Soil Monitoring as a Precondition for Soil Conservation? A Case Study of Latvia <i>Silja Tiemann.....</i>	175

2.11	Tradable Pollution Permits: A Useful Instrument for Agri-environmental Policy? <i>Peter Weingarten</i>	181
Section 3 – Determinants of Agri-Environmental Policies and their Impact on the Environment 189		
3.1	Agri-environmental Policy in Environmentally Fragile Areas in Hungary <i>Katalin Balázs, Gábor Szabó and László Podmaniczky</i>	191
3.2	Agri-environmental Policy System of Slovenia in the Process of European Integration with Special Attention Paid to Protected Areas <i>Ana Barbic and Andrej Udovc</i>	195
3.3	Problems with the Transposition and Implementation of Requirements Imposed by Directive 91/676/EEC in Poland <i>Zbigniew M. Karaczun</i>	201
3.4	Agri-chemical and Water Usage and Management in Corn Island, Slovakia <i>Milan Macak, Karol Kovac, Pavol Stehlo and Pavol Otepka</i>	207
3.5	Expected Impact of Implementation of Key EU Measures to Solve the Conflict of Conservation vs. Farming <i>Jaroslav Prazan</i>	213
3.6	Water Quality Protection in the Environmentally Fragile Karst Areas in Lithuania <i>Romualdas Zemeckis, Sigitas Lazauskas and Matthew Gorton</i>	217
3.7	Key Choices in Agri-environment Policy Design <i>Zélie Peppiette</i>	221
3.8	Building the Road to Accession: Institutional Issues Concerning the Adoption of European Union Rural Development Policies by European Union Candidate Countries <i>John Powell</i>	229
3.9	Integration of Agricultural and Environmental Policies as a Way for Sustainable Development of Rural Areas <i>Mieczyslaw Adamowicz</i>	245

3.10	The European Union Drivers of Agri-environmental Policies in Central and Eastern Europe <i>Harriet Bennett</i>	255
3.11	Why Not More Sustainable Development? Possible Factors for Determining Policy Change <i>Markus Brem</i>	263
3.12	Water, Soil and Landscape Related Issues and Policies in Bulgaria <i>Monica Koubratova Hristova</i>	271
3.13	Can SAPARD Form the Foundations for Agri-environmental Sustainability? <i>Tobias Leiber</i>	277
3.14	Profit, Politics and Sustainability: The Determinants of Rural- and Agri-environmental Policy-making in Hungary <i>Gusztáv Nemes</i>	283
3.15	The Role of the European Environment Agency in Building Agri-environmental Indicators for Environmental Assessments in Europe <i>Jan-Erik Petersen</i>	289
Section 4 – Environmental Effects of Farming Systems in Transition and Indicators for Measurement.....		299
4.1	Environmental Impact of Farming Systems in Bulgaria <i>Alexi Alexiev</i>	301
4.2	Land Use Changes and Land Abandonment in Estonia: The Case of Jogeva County <i>Olavi Hiimäe</i>	307
4.3	Agri-environmental Practices that Preserve Biodiversity and Landscape in Hungary <i>László Podmaniczky, Katalin Balázs and Gábor Szabó</i>	319
4.4	Analysis of Environmental Impact of Farming Systems in Romania, Agri-Environmental Indicators <i>Luiza Toma</i>	325
4.5	Environmental Effects of Farming Systems in Transition and Indicators for Measurement <i>Dirk Wascher and John Dixon</i>	331

4.6	Environmental Preservation in the Context of Romanian Rural Development <i>Dragos Alexandru</i>	345
4.7	Actors that Determine Farming Systems in Albania <i>Bahri Musabelliu and Maksim Meço</i>	351
4.8	Agriculture in the Ukraine: Trends and Impacts of Transition <i>Maria Nijnik</i>	357
4.9	Heavy Metal Input on Farmland – an Indicator for a Sustainable Agricultural System <i>Florian von Sothen</i>	363
	List of Participants.....	371