



Crossing Borders for Nature

European examples of transboundary conservation

Edited by Maja Vasiljević and Tomasz Pezold



INTERNATIONAL UNION FOR CONSERVATION OF NATURE



Crossing Borders for Nature

European examples of transboundary conservation





IUCN

IUCN, International Union for Conservation of Nature, helps the world find pragmatic solutions to our most pressing environment and development challenges.

IUCN works on biodiversity, climate change, energy, human livelihoods and greening the world economy by supporting scientific research, managing field projects all over the world, and bringing governments, NGOs, the UN and companies together to develop policy, laws and best practice.

IUCN is the world's oldest and largest global environmental organization, with more than 1,000 government and NGO members and almost 11,000 volunteer experts in some 160 countries. IUCN's work is supported by over 1,000 staff in 60 offices and hundreds of partners in public, NGO and private sectors around the world.

www.iucn.org



The World Commission on Protected Areas (WCPA)

The World Commission on Protected Areas (WCPA) is the world's leading network of protected area managers and specialists, with over 1,300 members in 140 countries. WCPA is one of the six voluntary Commissions of IUCN and is administered by the Global Protected Areas Programme at IUCN's headquarters in Gland, Switzerland. WCPA's mission is to promote the establishment and effective management of a worldwide representative network of terrestrial and marine protected areas, as an integral contribution to the IUCN mission.

www.iucn.org/wcpa

Transboundary Conservation Specialist Group

IUCN WCPA Transboundary Conservation Specialist Group is the premier global network of transboundary conservation specialists. Transboundary Conservation Specialist Group's mission is to promote and encourage transboundary conservation for the conservation of nature with associated ecosystem services and cultural values while promoting peace and co-operation among nations through enhancing knowledge and capacity for effective planning and management of transboundary conservation areas, in fulfilment of the Durban Action Plan and CBD Programme of Work on Protected Areas.

www.tbpa.net



BfN

The German Federal Agency for Nature Conservation (BfN) is Germany's central scientific authority responsible for national and international nature conservation. The Agency provides the German government – primarily the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) – with professional and scientific assistance in all nature conservation and landscape management issues and in international cooperation activities.

BfN performs a key knowledge transfer function for nature conservation by preparing scientific knowledge and rendering it suitable for practical application. Also, BfN furthers its objectives by carrying out related scientific research and is in charge of a number of funding programmes. The Agency therefore maintains an ongoing dialogue with policymakers, development organisations, business sector, scientific community, educators and the media, and is constantly adapting the nature conservation toolkit to societal change.

BfN's international activities are guided by the goals and priorities enshrined in the multilateral environmental conventions and agreements relevant to nature conservation and aim to advance their implementation.

www.bfn.de

Crossing Borders for Nature

European examples of transboundary conservation

Edited by Maja Vasiljević and Tomasz Pezold



The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN, BMU, UBA or BfN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

For the purpose of this publication, the name Kosovo has been used to refer to the territory under the United Nations Interim Administration Mission in Kosovo, established in 1999 by UN Security Council Resolution 1244; and the name Macedonia has been used to refer to the former Yugoslav Republic of Macedonia.

The views expressed in this publication do not necessarily reflect those of IUCN, BMU, UBA or BfN.

This publication has been made possible in part by funding from the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and by the German Federal Environment Agency (UBA) with support of the German Federal Agency for Nature Conservation (BfN) with means of the Advisory Assistance Programme for Environmental Protection in the Countries of Central and Eastern Europe, the Caucasus and Central Asia.

Published by: IUCN, Gland, Switzerland and Belgrade, Serbia

Copyright: © 2011 International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: Vasiljević, M., Pezold, T. (eds.). (2011). *Crossing Borders for Nature. European examples of transboundary conservation*. Gland, Switzerland and Belgrade, Serbia: IUCN Programme Office for South-Eastern Europe. viii + 72pp.

Collaborators: Giorgio Andrian, Robert Brunner, Stanka Dešnik, Katharina Diehl, Gregor Domanjko, Bernhard Harrer, Gjorgi Ivanov, Aleksandar Ivanovski, Hubert Job, Hans Kiener, Zdenka Krenova, Alois Lang, Marius Mayer, Daniel Metzler, Martin Müller, Zbigniew Niewiadomski, Hana Petrikova, Dimitar Popov, Spase Shumka, Annette Spangenberg, Andrea Strauss, Marina Trusova, Manuel Woltering.

ISBN: 978-2-8317-1383-0

Design by: Imre Sebestyén, jr. / UNITgraphics.com

Cover photo: Tomasz Pezold

Produced by: IUCN Programme Office for South-Eastern Europe

Printed by: Stojkov, Novi Sad

Available from: IUCN Programme Office for South-Eastern Europe
Dr Ivana Ribara 91
11070 Belgrade, Serbia
see@iucn.org
Tel +381 11 2272 411
Fax +381 11 2272 531
www.iucn.org/publications

Table of contents

Foreword.....	vii
Preface.....	viii
Acknowledgments.....	ix
Acronyms.....	x
1. Introduction — The Project and its Background.....	1
2. Transboundary Conservation — A Global Context.....	3
3. European Green Belt Initiative — A Retrospective on Crossing Boundaries.....	8
4. Dinaric Arc Initiative — An Innovative Approach in the Governance of International Cooperation.....	13
5. Prespa Lakes — Where Green Diplomacy Wins.....	18
6. Pasvik-Inari Trilateral Park — Cooperation in the Arctic.....	22
7. East Carpathians — The World’s First Trilateral UNESCO Biosphere Reserve.....	26
8. 8000 Years of Crossing Borders — Neusiedler See / Fertő-Tó.....	31
9. Good Practices in Sustainable Transboundary Cooperation — Krkonosé/Karkonosze Biosphere Reserve.....	35
10. Goričko-Raab-Őrség — Developing with Nature in a Trilateral Park.....	39
11. Europe’s Wild Heart — Responsibility for Europe.....	42
12. Thaya River — Connecting Thayatal and Podyjí National Parks.....	46
13. Cross-sectoral Cooperation for Bird Conservation — Green Balkans NGO and Bulgarian Chief Directorate Border Police.....	50
14. Jablanica-Shebenik — Working Towards a Transboundary Protected Area for the Balkan Lynx....	55
15. Regional Economic Impact of Bavarian Forest National Park.....	59
16. Summary and Conclusions — Benefits of Transboundary Cooperation in Nature Conservation ...	66
17. References.....	71



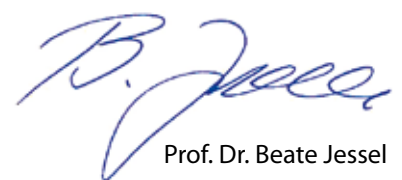
Foreword

Running from the Barents to the Black and Adriatic Seas, the European Green Belt forms the backbone of an ecological network in Europe, thus creating a global symbol for transboundary cooperation in nature conservation and sustainable development. By following a course that was in large sections part of the former Iron Curtain—one of the most divisive barriers in history—it symbolizes the global effort for joint, cross border activities. Moreover, the initiative serves to better harmonize human activities with the natural environment, and to increase the opportunities for socioeconomic development of local communities. On this basis, the Green Belt can enhance cooperation between European Union (EU) Member States and neighbouring countries aspiring to EU membership.

The German Federal Agency for Nature Conservation (BfN) is proud to be part of this initiative. Over the years, BfN has funded numerous Green Belt projects at the national and international level. This publication was produced within the project *“Walk on the Wild Side. Building up capacity and strengthening cooperation for the promotion of transboundary nature conservation along the South-Eastern European Green Belt”*, implemented by IUCN (International Union for Conservation of Nature), in cooperation with BfN and local partners and funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the German Federal Environment Agency (UBA).

The south-western part of the Balkan Peninsula is a global hot spot of biodiversity. The border areas in the region represent some of the last intact nature sites. These sites are not only a common wealth but also a common responsibility. Nature does not stop at political borders, nor does nature conservation. Nowadays, many examples show the benefits that transboundary cooperation can bring to the protection of natural and cultural heritage, improving the wellbeing of local communities, mitigating tensions and re-establishing friendly neighbourly relations.

We welcome the sound results of the project aiming to increase the capacities of stakeholders dealing with nature conservation and to further develop cooperation in the trilateral border zone between Albania, Kosovo, and Macedonia. In view of the very positive feedback of project stakeholders to the outcome, we truly believe that this publication will contribute to the promotion of best practices in transboundary nature conservation and will be used as a supportive tool in the future conservation of this outstanding region.



Prof. Dr. Beate Jessel
President, German Federal Agency for Nature Conservation

Preface

by Maja Vasiljević and Tomasz Pezold

The Balkan Peninsula, and particularly its south-western mountain zone, is considered a centre of European biological diversity and endemism. Forest ecosystems have in many parts 'survived' the human impact, thus preserving some of Europe's largest populations of large carnivores (bear, wolf, lynx). One of these last remaining 'wilderness' areas of Europe is the mountainous border zone between Albania, Kosovo and Macedonia, which forms part of the European Green Belt. The efforts to initiate transboundary conservation have been supported and supplemented by international partners such as IUCN, who implemented a range of activities aimed at improving trilateral cooperation as part of the project *"Walk on the Wild Side. Building up capacity and strengthening cooperation for the promotion of transboundary nature conservation along the South Eastern European Green Belt"*. Introduction on the background of this project explains that some protected areas within this trilateral region were established years ago, while others that would complete the 'picture' of one ecosystem are still in the planning phase. This publication aims to further raise awareness about the value of transboundary conservation, highlighting the many benefits transboundary cooperation generates, while not neglecting the challenges and problems parties encounter when they engage in transboundary initiatives. IUCN partnered with its World Commission on Protected Areas – Transboundary Conservation Specialist Group in developing this publication, in the hopes that it will be useful to a wide range of policy makers and practitioners involved in transboundary conservation, in particular in the trilateral zone of Albania, Kosovo and Macedonia.

Chapter 2 explains the evolution of transboundary conservation practice in global terms, with regard to definitions and global trends. Chapter 3 provides the background to the widely known European Green Belt Initiative that spans the continent and is considered one of the most important transboundary conservation initiatives on a regional scale. Further chapters are dedicated to 12 case studies from Europe, one of which focuses specifically on the economic value of a protected area (Bavarian Forest National Park). In all the case studies, some form of transboundary cooperation is in place, whether initiated by high governmental agreements, protected area staff, or non-governmental organisations. What is common to all the presented case studies is the challenging nature of establishing working relations across the national border. Overcoming many barriers in transboundary conservation requires efforts above and beyond those in 'normal' conservation within national boundaries, and once the path towards effective cooperation is discovered, protected areas yield many benefits in the social, political and ecological spheres. These benefits are further outlined in Chapter 16.

This publication has been translated into Macedonian and Albanian to enable wider usage of this volume in the countries where the IUCN project has been implemented. The European case studies of good practices will certainly provide useful examples of ways to initiate transboundary conservation, how to maintain good cooperation and, most of all, the values that such an approach brings to nature management.

Acknowledgements

We would like to thank the German Federal Agency for Nature Conservation (BfN) for their generous support for the production of this publication. Funding was provided by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the German Federal Environment Agency (UBA) and the German Federal Agency for Nature Conservation (BfN) with means of the Advisory Assistance Programme for Environmental Protection in the Countries of Central and Eastern Europe, the Caucasus and Central Asia.

We greatly appreciate the many authors who have developed the case studies presented in this publication: Giorgio Andrian, Robert Brunner, Stanka Dešnik, Katharina Diehl, Gregor Domanjko, Bernhard Harrer, Gjorgi Ivanov, Aleksandar Ivanovski, Hubert Job, Hans Kiener, Zdenka Krenova, Alois Lang, Marius Mayer, Daniel Metzler, Martin Müller, Zbigniew Niewiadomski, Hana Petrikova, Dimitar Popov, Spase Shumka, Annette Spangenberg, Andrea Strauss, Marina Trusova and Manuel Woltering.

This publication was peer reviewed by Martin Šolar, Director of Triglav National Park in Slovenia, Chair of EUROPARC Federation's Transboundary Steering and Evaluation Committee (STEC), and Member of the IUCN World Commission on Protected Areas - Transboundary Conservation Specialist Group. His contribution to the publication is gratefully acknowledged.

Helpful comments on early drafts were received from Florian Carius, Project Coordinator of BfN and project implementation was supported by Katharina Lenz, Project Coordinator of UBA.

We also acknowledge partners in the project within which this publication was produced: REC Albania, Ecologists' Movement of Macedonia and REC Kosovo.

We would also like to thank Linda Zanella, Igor Stefanoski and Edlira Kovaci, who provided professional translations and proofreading of the publication.

Acronyms

A	Austria	MCWG	Monitoring and Conservation Working Group
BFNP	Bavarian Forest National Park	MES	Macedonian Ecological Society
BfN	German Federal Agency for Nature Conservation	NATO	North Atlantic Treaty Organization
BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	NGO	Non-governmental organisation
BR	Biosphere reserve	NP	National park
CAP	Common Agricultural Policy	OeNB	Austrian Nature Conservation Association
CBD	Convention on Biological Diversity	PA	Protected area
CBC	Cross-border cooperation programme of the EU	PEEN	Pan-European Ecological Network, Council of Europe
CEPA	Communications, Education and Public Awareness Strategy	PPCC	Prespa Park Coordination Committee
CIC	International Council for Game and Wildlife Conservation	PPNEA	Protection and Preservation of Natural Environment in Albania (NGO)
CZ	Czech Republic	PL	Poland
DAI	Dinaric Arc Initiative	PoWPA	Programme of Work on Protected Areas
DEM	Ecologists' Movement of Macedonia	REC	Regional Environmental Center
DMZ	Demilitarized zone	SAC	Special Areas of Conservation (Birds Directive)
EEA	European Economic Area	SAP	Strategic Action Plan
EEA	European Environment Agency	SDC	Swiss Agency for Development and Cooperation
EEC	European Economic Community, renamed the European Community (EC) in 1993	SEE	South-Eastern Europe
EC	European Commission	SIDA	Swedish International Development Cooperation Agency
EC	European Community	SK	Slovakia
ECBC	Eastern Carpathian Biodiversity Conservation Foundation	SNV	Netherlands Development Organisation
ECBR	East Carpathians Biosphere Reserve	SPA	Special Protection Areas (Habitats Directive)
ECNC	European Centre for Nature Conservation	SPP	Society for the Protection of Prespa
ENPI	European Neighbourhood and Partnership Instrument	ŠNP	Šumava National Park
EU	European Union	TBCA	Transboundary conservation area
EuGB	European Green Belt	TBC SG	Transboundary Conservation Specialist Group
EUR	Euro, official currency of the eurozone	TBR	Transboundary biosphere reserve
FAO	Food and Agriculture Organization of the United Nations	TDA	Transboundary diagnostic analysis
GEF	Global Environment Facility of UNDP	UA	Ukraine
GDR	German Democratic Republic	UBA	German Federal Environment Agency
GIS	Geographic information system	UN	United Nations
GPS	Global positioning system	UNDP	United Nations Development Programme
HEP	Hydro-electrical power	UNEP	United Nations Environment Programme
IAPA	Internationally adjoining protected areas	UNESCO	United Nations Educational, Scientific and Cultural Organization
IBA	Important Bird Areas	VAT	Value added tax
IGO	International governmental organisation	WCMC	World Conservation Monitoring Centre
IPA	Instrument for pre-accession assistance	WCPA	World Commission on Protected Areas
ISCC	Interim Secretariat of the Carpathian Convention	WWF	World Wide Fund For Nature
IUCN	International Union for Conservation of Nature		
KfW	Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute)		
MAB	Man and Biosphere Programme of UNESCO		

1. Introduction — The Project and its Background

Tomasz Pezold¹

Objectives of the project

“Walk on the Wild Side. Building up capacity and strengthening cooperation for the promotion of transboundary nature conservation along the South Eastern European Green Belt” is a project implemented by IUCN, in cooperation with the German Federal Agency for Nature Conservation (BfN), and in close partnership with the Ecologists’ Movement of Macedonia (DEM), REC Albania and REC Kosovo. The project’s activities are implemented across the trilateral border zone of Kosovo², Albania and Macedonia³, an area characterized by outstanding

1. increasing the capacities of stakeholders involved in activities related to biodiversity management along the border zone of Albania, Kosovo and Macedonia;
2. strengthening cross-sectoral and international cooperation in biodiversity conservation;
3. raising awareness of key stakeholders and civil society of the value of conservation of natural heritage.

Sharr Mountain in the European Green Belt

The south-western part of the Balkan Peninsula is a biodiversity hotspot. High mountain areas abound in plant species diversity, and the region is one of the last remaining retreats of large European carnivores, such as bear, wolf and lynx. The border areas have been strictly



© IUCN / Tomasz Pezold

biodiversity and landscape values in the region of Sharr/Šar and Korab Mountains. Key stakeholders involved in the project included officials from the three governments, and representatives of NGOs, scientific institutions, protected area administrations and the border police. The project is aimed at strengthening transboundary cooperation in nature conservation with several immediate objectives:

guarded for decades, creating, in some sections one of the most divisive barriers in history. These areas now represent some of the last intact natural sites.

The Sharr⁴ Mountain spans from southern Kosovo and north-western Macedonia to north-eastern Albania. The mountain system is about 80 kilometres long and 10 to 30 kilometres wide. It includes several high peaks with the highest, Titov Vrv, reaching an altitude of 2,747 m. Sharr Mountain extends to Korab Mountain (2,764 m) in the south-west, before continuing along the Albanian/Macedonian border as the Dešat/Deshat mountain range.

¹ Ecosystems Project Officer, Programme Office for South-Eastern Europe, IUCN

² For the purpose of this publication, the name Kosovo has been used to refer to the territory under the United Nations Interim Administration Mission in Kosovo, established in 1999 by UN Security Council Resolution 1244.

³ The name Macedonia has been used to refer to the former Yugoslav Republic of Macedonia.

⁴ Albanian: Malet e Sharrit, Macedonian: Шар Планина, Serbian: Šar planina.

The European Green Belt⁵ (EuGB) is an initiative of particular relevance to this region, spanning 13,000 km of the land behind the former Iron Curtain, from the Barents Sea in the north to the Adriatic and Black Seas in the south. With the vision of becoming the backbone of an ecological network, the EuGB is a symbol of transboundary cooperation in nature conservation and sustainable development. At the local scale, Sharr Mountain is a true example of what the EuGB intends to achieve. The ecological backbone already exists in the Sharr Mountain, owing to the tight border controls in the recent past and the inaccessible mountainous terrain. The key objectives for the coming years are to strengthen the protection of the existing ecological conditions and values, particularly for the large European carnivores of the region, and to ensure integrated and cooperative management and development plans are applied across the now open boundaries.

Current state of protected areas

The first attempts to protect the natural values in the region began in Macedonia (at that time Yugoslavia) with the proclamation of Mavrovo National Park in 1949. Covering an area of 73,088 ha and bordering on both Albania and Kosovo, this is the largest of the three national parks in Macedonia.

The first national park intended to protect Sharr Mountain was established on the territory of Kosovo (at that time Yugoslavia) in 1986. The national park, covering approximately 39,000 ha, ends on the administrative border with Macedonia and on the border between two municipalities within Kosovo.

Although Albania has made significant progress in recent years towards developing a national system of protected areas, the establishment of a protected area along the border with Kosovo and Macedonia remains in the planning and development stages.

Prospects for the future – towards a transboundary ecological corridor

After years of uncoordinated actions related to nature conservation across borders, the prospects for the future are promising. The government of Macedonia recently announced its intention to proclaim 48,000 ha of Sharr Mountain a national park, adjacent to the existing Mavrovo National Park and connecting with Sharr National Park in Kosovo. In terms of transboundary conservation, this is a positive step forward towards the integral protection of the Sharr ecosystem.

Another important Macedonian initiative aimed at improved coherence of protected area systems in the transboundary context is the establishment of Jablanica National Park, bordering on Albania. In cooperation with Albanian counterparts, once proclaimed, the national park will constitute another transboundary mountain area in the region – Jablanica/Shebenik Mountains.

Although Sharr Mountain National Park in Kosovo is facing many challenges with regard to management, financing and external pressures on the environment, it is seen as an important base for sustainable development in a region afflicted by poverty, high unemployment and emigration of the local population. An initiative has been introduced for the enlargement of the existing park in the municipality of Dragash/Dragaš, and is broadly supported by multi-ethnic local communities.

While the Macedonian side of the Korab and Deshat/Dešat Mountains lies entirely within Mavrovo National Park, the Albanian side is not yet under protection. However, the Government of Albania has prepared a proposal for designation of the Korabi Protected Landscape, covering an area of over 30,000 ha bordering Kosovo and Macedonia. The legal proclamation of the area is foreseen for the year 2012.

If all the proposed initiatives related to the establishment of transboundary Sharr/Šar Mountain - Korabi - Deshat/Dešat protected area between Albania, Kosovo and Macedonia are implemented, the area would cover more than 250,000 ha⁶ and become one of Europe's largest protected areas. Together with the adjacent Mavrovo and Jablanica National Parks in Macedonia and the protected complexes areas to be established in the triangle between Montenegro, Albania and Kosovo, aimed at protection of the Dinarides, this region will become the largest functional and legally protected ecological corridor in the European mountains.

5 www.europeangreenbelt.org

6 Feasibility Study on establishing a transboundary protected area Sharr/Šar Planina – Korab – Dešat/Deshat. UNEP Vienna - ISCC, 2010.

2. Transboundary Conservation — A Global Context

Maja Vasiljević¹

Introduction

Plachter (2005) claimed *“the idea to cross national borders by joint protected area programmes is one of the noblest and convincing ones in current days.”* Globalization is one of the key characteristics of today’s world, occurring through the spread of technology, trade, transportation, ideas, communication and a wide variety of other aspects.

in Rio de Janeiro which also approved the Convention on Biological Diversity). Humans are part of ecosystem processes and have critical importance in interacting with nature. In recent decades, the role of protected areas has started to reflect this through the acknowledgment of their socioeconomic values and benefits (Phillips 2003). The period from the end of the 1980s was also a time when transboundary conservation initiatives at the global scale, cooperation across international boundaries for the benefits of biodiversity and local communities, and



© Maja Vasiljević

Following this global trend of enhanced communication and networking, nature conservation has also found a way to remove barriers between international state borders, leading to the exchange of ideas and cooperation in management.

The growth of formally designated protected areas is particularly evident in the second half of the 20th century. Although human concern for wildlife and nature extends far back in history, the human perception of the role of protected areas has shifted dramatically and evolved in parallel with other global events (e.g. UN Conference on Environment and Development in 1972 in Stockholm, the publishing of the World Conservation Strategy, IUCN, WWF and UNEP in 1980, and the Earth Summit in 1992

improvement of diplomatic relations began to increase significantly. A number of organisations emerged as the primary promoters of transboundary conservation efforts (e.g. IUCN, EUROPARC Federation, Peace Parks Foundation, United Nations Educational, Scientific and Cultural Organisation (UNESCO), etc.), including funding agencies that have supported the establishment of new transboundary conservation areas (TBCA)².

After the International Conference on Transboundary Protected Areas as a Vehicle for International Cooperation (1997, Somerset West, South Africa), where the contribution of TBCAs in fostering regional peace and

¹ Chair, IUCN WCPA Transboundary Conservation Specialist Group, Croatia.

² In this paper, TBCAs refer to any of the types of transboundary conservation initiatives: transboundary protected areas, parks for peace, transboundary conservation and development areas, and transboundary migratory corridors (Sandwith et al. 2006).

stability was acknowledged, transboundary conservation initiatives took a central position at the IUCN's Vth World Parks Congress (2003, Durban, South Africa) on the theme *Benefits beyond Boundaries*. Numerous presentations and workshops across all streams, themes and sessions of the World Parks Congress resulted in the inclusion of transboundary considerations in nature conservation in the final outputs of the Congress: Durban Accord, Durban Action Plan and the Message to the CBD.

In 2004 in Kuala Lumpur, Malaysia, the 7th Conference of the Parties to the Convention on Biological Diversity (CBD) adopted the Programme of Work on Protected Areas (PoWPA), a comprehensive guidance on measurable goals and targets related to protected areas³. IUCN World Commission on Protected Areas (WCPA) was one of the key developers of PoWPA, through which the States Parties to the CBD are encouraged, among other issues, to cooperate in establishing transboundary protected areas (TBPA), set up new marine transboundary areas, provide enabling policies and a benevolent institutional and socio-economic environment for transboundary protected areas, and develop guiding standards and frameworks for monitoring (Convention on Biological Diversity 2004). The CBD Secretariat reviewed progress in the implementation of PoWPA, noting that transboundary conservation related provisions achieved 'fair to good progress' (IUCN WCPA 2010). The assessment was made based on the increase in the number of transboundary protected areas and the types of cooperation. The increase in the number of transboundary complexes will be addressed in greater detail below, but first, it is important to clarify what transboundary conservation actually represents.

Defining transboundary conservation

Worldwide, different terminology is employed to refer to transboundary conservation practice, which is often misleading and confusing in terms of the objectives of a particular transboundary site. Some of the terms used are: 'transfrontier protected areas', 'transboundary natural resource management areas', 'peace parks', 'parks for peace', 'transfrontier conservation areas', and the like. IUCN has led the way in gathering experts for the purpose of offering standardized terminology regarding transboundary conservation. Based on the outcomes of the workshops in Bormio, Italy in 1997, and Gland, Switzerland in 2000, IUCN published a guideline titled 'Transboundary Protected Areas for Peace and Co-operation', in which it offered a definition of a transboundary protected area, and also suggested crucial 'steps' needed in developing transboundary initiatives (Sandwith et al. 2001). This

work continued as transboundary conservation initiatives around the world kept emerging and evolving, while the complexity of arrangements between TBCAs and their methods of implementation increased. Further clarifications and directions for achieving transboundary conservation objectives, whether related to biodiversity conservation, cultural exchange, regional economic integration or promotion of peace or other objectives were needed.

In 2003, IUCN and the International Tropical Timber Organization (ITTO) organized a meeting in Thailand to develop proposals for transboundary conservation typology. This was followed by further debates at the workshop on La Maddalena Island, Italy in May 2004. Finally, in 2006, under IUCN's guidance, a comprehensive typology incorporating diverse transboundary conservation practices was suggested⁴, as outlined below⁵.

Transboundary Protected Areas

Sandwith et al. (2001) define a TBPA as "an area of land and/or sea that straddles one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed co-operatively through legal or other effective means." This type of transboundary conservation practice is likely the one most commonly applied worldwide, and certainly what comes to mind for most people when they hear about transboundary protected areas. Normally, these are protected areas that are adjoining a national border (e.g. Fertő-Neusiedler See in Hungary and Austria). The definition also includes sub-national boundaries in countries, to recognize the efforts in crossing provincial or other administrative boundaries to establish a transboundary conservation initiative.

Parks for Peace

Defined as "transboundary protected areas that are formally dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and to the promotion of peace and co-operation", Parks for Peace incorporate a special objective of the initiative, i.e. the promotion of peace (Sandwith et al. 2001). Whether celebrating historically good relations (as is the case of

³ The timeline to reach the goals in PoWPA was 2010 for terrestrial protected areas, and 2012 for marine areas.

⁴ Transboundary Protected Area and Parks for Peace were already defined by IUCN earlier in 2001, as shown in Sandwith et al. (2001). Two other types were added in 2005, bringing the total to four types of transboundary conservation practice.

⁵ Note that IUCN WCPA Transboundary Conservation Specialist Group is working on the alignment of the definitions of transboundary conservation types with the current IUCN definition on protected areas (as outlined in Dudley, N. (Ed.) 2008).



Waterton-Glacier International Peace Park between USA and Canada) or securing stable relations after an armed conflict (e.g. Cordillera del Cóndor between Ecuador and Peru), Parks for Peace⁶ and the objective underpinning this concept are contributing remarkably to the building of confidence, trust and friendly relations between the concerned parties.

Transboundary Conservation and Development Areas

Sandwith et al. (2006) define this type of transboundary conservation initiative as “*areas of land and/or sea that straddle one or more borders between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limit of national sovereignty or jurisdiction, whose constituent parts form a matrix that contributes to the protection and maintenance of biological diversity, and of natural and associated cultural resources, as well as the promotion of social and economic development, and which are managed co-operatively through legal or other effective means*”. The key characteristic of a Transboundary Conservation and Development Area is a combination of conservation and sustainable development incorporated within the cooperative framework. The goal of this kind of initiative is to ensure involvement and active support of local communities in the conservation of a specific area, as can be seen in the Maloti Drakensberg Transfrontier⁷ Conservation and Development Area (MD TFCD) in Lesotho and South Africa, where the stakeholders involved in the MD TFCD Programme produced a 20-year strategy for the site, starting with 2008. Aspects related to the livelihood of local communities were effectively integrated within the overall strategy and translated in more concrete activities through a five year action plan (Zunckel 2007).

Transboundary Migratory Corridors

Transboundary Migratory Corridors are “*areas of land and/or sea in two or more countries, which are not necessarily contiguous, but are required to sustain a biological migratory*

pathway, and where co-operative management has been secured through legal or other effective means” (Sandwith et al. 2006). Good examples of this type of transboundary conservation practice, which normally includes several countries, are the European Green Belt and the Meso-American Biological Corridor, which protect the migratory routes of species.

The above typology serves the purpose of guiding conservationists and other specialists involved in the development of a transboundary initiative. Other definitions exist, such as that of a TBPA offered by the Protocol to the Carpathian Convention, and promoted by EUROPARC Federation at European scale, in which a TBPA indicates protected areas in territories of two or more Parties, adjacent to state borders⁸. IUCN clearly emphasizes the importance of cooperative management (often referred to as co-management) in all types of transboundary practice, which is one of the most distinctive characteristics of TBCAs in relation to protected areas of no transboundary nature. Thus for example, a protected area physically adjoined with another protected area across an international border will not be ‘recognised’ as a TBPA unless a certain level of cooperation⁹ exists between the two protected areas. Co-management, in which a number of stakeholders negotiate responsibility over management of an area (IUCN 1997), is therefore one of the key prerequisites for the area to be regarded transboundary.

In Europe a valuable system of verification and certification called ‘Transboundary Parks-Following Nature’s Design’, has been established by EUROPARC Federation, following its launch at IUCN’s Vth World Parks Congress in 2003. This system offers the Basic Standards Criteria, which define a range of measurable activities in European TBPAs, according to which evaluation and certification processes are implemented. Certified TBPAs are an example of good transboundary practice, in which majority of Basic Standard Criteria are fully employed (e.g. common vision, cross-cultural interaction, ecological monitoring, etc.)¹⁰.

Global trend

Transboundary conservation frameworks have been evolving along with the advances and progress in ‘rethinking’ conservation, especially the role of protected areas at the global level. We have passed from the initial stage of protecting wildlife and wilderness areas at

6 A term ‘Peace Park’ is often used to indicate a protected area with history of conflict but with no transboundary connotations. This is in particular promoted by the United Nations University for Peace in Costa Rica.

7 In South Africa, Peace Parks Foundation (established in 1997) adopted the term Transfrontier Conservation Area, which it interchangeably uses with ‘Peace Park’.

8 See: Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Convention on the Protection and Sustainable Development of the Carpathians adopted in Kiev on 22 May 2003, www.carpathianconvention.org

9 More on the levels of cooperation in Chapter 16.

10 More information on ‘Transboundary Parks-Following Nature’s Design’ at www.europarc.org

national levels, through conservation of biodiversity under the umbrella of sustainable development and significance of socio-cultural values, to the creation of networks and corridors by considering the ecosystem approach to nature conservation. One of the most recent concepts that can include transboundary conservation if applied across borders is connectivity conservation, which tends to create physical linkages or enable the occurrence of dynamic processes to connect the fragmented environment (Sandwith et al. 2006). With their multiple objectives, TBCAs play a significant role in protecting biodiversity and habitats, including those at the landscape level, and also in promoting cooperation among nations and creating an enabling environment for the fulfilment of social, economic and political goals.

Some of the suitable frameworks for regional cooperation are: the Convention on the Conservation of Migratory Species and Wild Animals (Bonn 1979), the Convention on Biological Diversity (Rio de Janeiro 1992), the Convention on Wetlands of International Importance (Ramsar 1971), the Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris 1972). The latest, widely known as the UNESCO World Heritage Convention, to a certain extent, facilitates the strengthening and maintenance of transboundary conservation initiatives through its regular reporting mechanisms. However, a more concerted effort is needed to fully engage transboundary processes before listing World Heritage Sites as transboundary ones. As part of its Man and Biosphere Programme, and through the Statutory Framework of the World Network of Biosphere Reserves (BR), UNESCO enabled BRs to look beyond national objectives by introducing Transboundary BRs. There are many other frameworks that support transboundary conservation initiatives (e.g. the Alpine Convention). The trend relating to the significance of TBCAs is rising, as is the trend in the growth of transboundary complexes.

The first formally established TBCA was Waterton-Glacier International Peace Park (USA–Canada), launched in 1932. The first ever inventory of transboundary complexes occurred in 1988 when IUCN and United Nations Environment Programme-World Conservation Monitoring Centre (UNEP WCMC) joined forces to list the 'border parks'. The inventory included 59 parks. Since the 1930s, the number of transboundary complexes has been on the rise, with a dramatic expansion in the last two decades (Sandwith et al. 2001). Several other assessments at the global level took place in 1997, 2001, 2005, and the most recent in 2007¹¹. The methodology for

each of the assessments differed slightly. In 2007, WCMC counted 227 TBPA's (UNEP WCMC 2007). In this inventory (and under the term 'TBPA'), WCMC included protected areas (as understood and defined by IUCN¹²) adjacent to the international border and to a protected area in a neighbouring country, as well as internationally adjoining protected areas (IAPAs). This inventory is a dynamic tool that requires continuous updating, which is not an easy task to perform. It also requires upgrading and extension of information that a database could provide (e.g. levels of cooperation, types of cooperative agreements, etc.). IAPAs are protected areas directly adjacent to TBPA's with no ongoing cooperation between protected areas (Mittermeier et al. 2005). Over the years, the number of IAPAs has grown, which is a positive development. However, the 2007 inventory does not offer a distinction between 'real' TBPA's, where cooperative management is in place, and IAPAs, which have the potential to be included in TBPA's. This information, along with several other adjustments in the TBPA database, would make an even more valuable tool for assessing the global trend in the growth (and management) of transboundary conservation initiatives worldwide.

The way forward

Transboundary conservation initiatives and establishment of TBCAs occur across all continents. Sometimes they are led by national governments, at times they are facilitated by non-governmental organisations (NGOs), international organisations, and/or protected area managers and staff. There are cases when the encouragement of donor grants and assistance can support the development of a transboundary initiative. At the global level, a handful of organisations have provided leadership in developing guidance for transboundary conservation. One of these prominent organisations is IUCN, especially its WCPA Transboundary Conservation Specialist Group¹³ (TBC SG), which maintains a global network of practitioners and experts in transboundary conservation and advises countries and managers on the establishment of TBCAs. UNEP, UNESCO and InWent¹⁴ have all contributed to better promotion and understanding of transboundary conservation globally, while at the regional (and ecoregional) scales, some organisations with leading

¹¹ In 1997, the assessment was part of research by D. Zbicz and M. Green, and in 2001, D. Zbicz updated the database (see Sandwith et al. (2001)). UNEP WCMC did other assessments. There were also developments at the regional (European) level, resulting in a list of transboundary areas in 1994 and 1999.

¹² The definition of a protected area was adopted at IUCN's IVth World Parks Congress in Caracas in 1992, i.e. a protected area is "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means."

¹³ Established as the Transboundary Protected Areas Task Force in 1997, but its name was changed in 2009. Its mission is "to promote and encourage transboundary conservation for the conservation of nature with associated ecosystem services and cultural values while promoting peace and co-operation among nations, through enhancing knowledge and capacity for effective planning and management of transboundary conservation areas, in fulfilment of the Durban Action Plan and CBD Programme of Work on Protected Areas."

¹⁴ In 2011, InWent merged into Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ).

transboundary programmes are: EUROPARC Federation, WWF, Peace Parks Foundation, Conservation International and The Nature Conservancy (Mittermeier et al. 2005).

Although considerable progress has been achieved in framing transboundary conservation initiatives, promoting their value and benefits, and advising key parties in the management of TBCAs, much still remains to be done. Effective communication and sharing of experience enables the utilisation of good practice in local conditions. Networking between managers involved in TBCAs needs to be improved, allowing for better learning and exchange of practices. Priorities for scientific research on transboundary conservation need to be identified. Global databases referring to TBCAs need updating and inclusion of additional categories which would allow scientists to compare and analyse data and those

interested in TBCAs to learn from worldwide experience. IUCN's definitions on the types of transboundary conservation practice need to be translated into a new manual for protected area staff, explaining each of the types, and adding advice on the establishment of TBCAs, management (i.e. co-management) and legal implications involving TBCAs.

Reaching a momentum of agreeing to a joint vision for a shared heritage between relevant parties across international boundary requires a great deal of patience, goodwill and understanding. In the European context, the *"opportunity for transboundary nature protection has never been greater than today"* (Brunner 1996). This opportunity has not only been translated into practice in Europe where the EU enables easier communication across borders, but also across many countries worldwide.



© IUCN / Julián Orozco Bacilla

3. The European Green Belt Initiative — A Retrospective on Crossing Boundaries

Andrea Strauss¹ and Katharina Diehl²

Introduction

Large areas under a conservation regime are a rare phenomenon in densely populated Europe, where conservation efforts face situations of conflicting land uses and development planning. One approach to nature conservation is the implementation of protected area networks, such as national parks, biosphere reserves,

to much research regarding the design of communication methods, adaptive land use management, ecological and socio-economic monitoring and organisational structure (Lombard et al. 2010). In contrast, the European Green Belt is a conservation area system fostered by a network of governmental and non-governmental organisations (NGO) and scientists who opted for a structure aimed at what Engel and del Palacio (2009) call a relationship of “weak ties, durable bonds”. Its geographical scope is not based on ecological grounds, although the organisations



© Andras Ambrus

landscape conservation areas, and ecological corridors. A large number of these areas have been set up in Europe within the last 20 years, in light of rising political awareness as to the importance of biodiversity conservation and protection of valuable landscapes and natural resources.

The spatial outline of these conservation area networks is commonly based on geophysical characteristics, such as the karstic mountain region in South-Eastern Europe (Dinaric Alps) or the Danube River (Danube River Protection Convention), with a strong binding to administrative divisions and regulatory commitments. Conservation measures, participation of stakeholders and acceptance within the population vary significantly and are subject

following Programme of Work³ claim it is one of the best nature conservation initiatives in Europe.

This paper aims to describe a conservation area network that is set not only in some of the most traditional cultural landscapes in Europe, but also in areas that are currently prone to intensive development planning. Established in 2003, the European Green Belt initiative built upon the natural heritage of the Cold War and eventually developed into an active multi-stakeholder initiative with more than 400 partners. The common vision is to build the backbone of an ecological network along the former Iron Curtain that extends from the Barents Sea to the Black and Adriatic Seas. The initiative has become a model for transboundary cooperation in nature conservation and

¹ Landscape Ecologist.

² Landscape Ecologist, Leibniz Centre for Agricultural Landscape Research, Germany.

³ Can be downloaded from www.europeangreenbelt.org

regional development. It has been subject to high media interest in the region and beyond due to its unique history and vision. Twenty years after the political turn-around in Europe, the European Green Belt is an excellent example of transboundary management and cooperation for the protection of valuable landscapes. Its significance rests on its political, social and economic potentials, as described in detail by Kortelainen (2010).

The objective of this paper is to give a short overview of the functions and organisational structure of the initiative, in order to analyse some of the distinct management measures regarding success factors and risks for failure. The paper additionally discusses the need for further advancement of both the structure and implementation of multinational and cross-border undertakings in nature conservation and regional development.

Consolidation of the European Green Belt Initiative

When the former east-western border—one of the most divisive barriers in history—began to disintegrate in the late 1980s, it put an end to access restrictions in dead-end border areas that had caused decades of economic stagnation. Apart from the political changes that followed the historic turning point, recovered access to these areas revealed a natural heritage that provides an interesting case for ecological research and is most valuable in terms of its biodiversity and natural regulation processes. The idea to sustain these areas of high ecological value was already recognised by researchers during the 1980s, but became articulated independently in several regions along the former east-western border and in adjoining border regions to the north and the south during the period of change in 1989 and 1990.

Supported by the strong engagement of several governmental and non-governmental organisations, the former rigid border was discussed as a basis for transboundary cooperation in nature conservation. This finally led to the launch of the European Green Belt initiative in September 2004 in the Fertő-Hanság National Park in Hungary, where experts and national representatives from the countries along the European Green Belt met to identify the steps required to make the initiative a tool for international cooperation in nature conservation. The main outcomes of this meeting were consolidated into the Programme of Work (Terry et al. 2006) and an agreement on the basic structure of the initiative.

The course of the European Green Belt as a conservation area network is a legacy of the recent political history. It spans 23 countries and runs approximately 12,500 km from the northern tip of Europe, along the Baltic coast,

crossing central Europe, and continuing to the Black and Adriatic Seas. Adding to the different ecological aspects of this corridor, which passes through six biogeographical regions⁴ (European Environment Agency 2003), each stretch is defined by a distinct border situation between countries—formed by the historic, political, geographical and socio-economic conditions in the respective regions.

Implementation and process - function and structure of the European Green Belt

The main goal of the initiative is the establishment of the European Green Belt as a functional ecological network. Its implementation supports the commitments made by EU Heads of States and Pan-European Environment Ministers to halt the loss of biodiversity. It also contributes to implementing the CBD Programme of Work on Protected Areas, the Pan-European Ecological Network (PEEN, Council of Europe) and other international conventions, initiatives and networks such as Natura 2000. Successful cross-border cooperation in nature conservation along the European Green Belt will support the EU strategy laid down in the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC) (Habitats Directive) as Special Protection Areas (SPA), and the EU Directive on the Conservation of Wild Birds (79/409/EEC) (Bird Directive) as Special Areas of Conservation (SAC). Effective cooperation with member and partner organisations will enhance the efforts taken within the Convention Concerning the Protection of the World Cultural and Natural Heritage (Karivalo and Butorin 2006), the Convention on Wetlands of International Importance, the UNESCO Man and the Biosphere programme, and the Bern Convention on the Conservation of European Wildlife and Natural Habitats.

A second important function of the European Green Belt initiative lies in its relevance on several levels of society, ranging from international to local. The historic and political context triggers an understanding for the context of nature conservation issues that is recognized as unusually high by the involved actors. Stakeholders use the European Green Belt as a viable tool to assist the sustainable development of communities at the local level. Local activities are communicated within the setting of a broad international context, by using contacts, websites and newsletters within the initiative. Projects and meetings serve as established and respected mechanisms for sharing knowledge, experience and best practice on transboundary cooperation for nature conservation and sustainable development. Governmental organisations and authorities acknowledge the European Green Belt as a

⁴ Arctic, Alpine, Boreal, Continental, Pannonian and Mediterranean biogeographical regions.

strong initiative within participating countries and among international organisations.

Thirdly, for various research disciplines, the European Green Belt is a laboratory to study landscape and continental scale ecological processes and the response of habitats and species to major ecological changes. The potential of transboundary research activities, crossing or following borders, is yet to be recognized and exploited. This relates, *inter alia*, to the natural sciences such as the study of effects of climate change in the well-preserved cross-section of different biogeographic regions crossed by the Green Belt, but also to scientific undertakings in the humanities.

The use of the European Green Belt as a label for local entrepreneurship is the fourth function named in the Programme of Work. The aim was to provide a tool to enhance benefits for the local economy through the sustainable development of enterprise at the local or regional level. While NGOs and governmental organisations already use the European Green Belt as a label for their activities, the recognition by local entrepreneurs of using the European Green Belt as a 'brand' for products and activities has been much lower.

The transboundary and cross-sectoral approach of the initiative needed to be reflected in its organisational structure. In this case, a network structure with smaller, shifting centres of activity generated by running projects proved to be a flexible instrument for implementing its goals. The network structure is special in that it involves NGOs, governmental organisations, the political sector, institutions and individuals. Regional coordinators, focal points and partners of the initiative create the connections, carry its approach to international, national, regional and local events and activities and implement the Programme of Work.

The coordinators of the initiative contribute to several ventures simultaneously, in order to make strategically effective connections that enhance resource mobility and support. In the past, this role was taken over by the IUCN Regional Office for Europe as part of the world's largest organisation in nature conservation with an extensive asset of specialists and in keeping direct contacts with both the governmental and non-governmental levels. The European Green Belt secretariat has been gathering and exchanging information with stakeholders active along the European Green Belt, supporting studies and pilot projects within the Green Belt and providing necessary expertise. Funding for European Green Belt projects comes from State budgets, local budgets, the EU and international sources.

The division of the initiative into three regional subsections further illustrates the network character of the European Green Belt. Each section, i.e. Fennoscandia and the Baltic, Central Europe and South-Eastern Europe, has a regional coordinator. The Association of Zapovedniks and National Parks of North-West Russia acts as the regional coordinator for Fennoscandia and the Baltic States, BUND (Friends of the Earth, Germany) for Central Europe and EuroNatur for South-Eastern Europe. The regional coordinators and national focal points (authorised by the respective State agencies responsible for nature conservation and regional development) ensure the implementation of the initiative's Programme of Work with regard to the natural preconditions, the prevalent land use, and the political situation. National focal points promote synergy and cooperate between national and pan-European Green Belt activities. Not only do landscape structures differ considerably among these 23 countries, the rights of use, i.e. property and land use, also vary. As a consequence, the initiative has to be implemented in various ways depending strongly on the respective preconditions, and on the local perception of the historic border regime at each section.

Lessons learnt and future prospects – factors for success and failure of a transboundary multi-stakeholder conservation initiative



Figure 2.1. European Green Belt map

The basis of the initiative's success lies in the combination of a gripping vision, a cross-sectoral and transboundary approach to its implementation, and a multi-stakeholder character with both consistent supporters and skilled individuals acting as drivers of the network. Though much has been achieved in establishing the European Green Belt as an ecological network, key steps for implementing the vision of the initiative remain to be taken. For further implementation of the Programme of Work, the following factors have either contributed to the success of the initiative thus far, or have slowed it down.

Common history – joint vision

The history of the strictly guarded division between east and west is common to the majority of the population in Europe. The topic of post-Cold War transboundary cooperation has sparked the broad interest of the public and the media, extending far beyond the nature conservation sector and far beyond Europe. The vision touches very individual memories of a large audience and triggers an interest that goes beyond the usual activism for nature conservation. It allows the involvement of target groups, partners from various sectors and audience at eye level with nature conservationists.

Cross-sector approach

The concept of sustainable development, as described in the Rio Declaration on Environment and Development 1992 (United Nations Conference on Environment and Development 1992), calls for strong engagement to involve partners and concepts from outside the traditional conservation sector. The same holds true for the CBD Programme of Work on Protected Areas⁵, the 2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization⁶. It constitutes a basic concept in tackling global issues such as climate change and the loss of biodiversity. The Green Belt initiative set out to explore suitable methods and measures for cross-sector cooperation. The approach opened the door for synergy and shared benefits, and brought in new allies, ideas and resources. Projects included art, such as in the collection of music for the Green Belt with UNESCO, professional training of journalists, teachers and authorities, and civil cooperation with the military sector.

5 Convention on Biological Diversity (2004). Decision VII/28. CBD, Montreal. Available at: www.cbd.int/decision/cop/?id=7765 (accessed December 2010).

6 Convention on Biological Diversity (2010). Decision X/1. Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity. Available at: www.cbd.int/doc/notifications/2010/ntf-2010-223-cop10-en.pdf, page87 (accessed December 2010).

Multi-stakeholder approach

The political level has proved to be an important driver for transboundary cooperation along the European Green Belt. The Memorandum of Understanding between Finland, Russia and Norway on cooperation in establishing the so-called Green Belt of Fennoscandia of February 2010 (Ministry of the Environment of the Republic of Finland, Ministry of the Environment of the Kingdom of Norway and Ministry of Natural Resources and Environment of the Russian Federation 2010), or the German coalition treaty specifically mentioning support to the initiative as a goal are good examples. Nevertheless, the initiative is upheld by the many individual projects that constitute a strong basis for implementation independent of regulatory mechanisms. Projects range from single events at different levels to long-term projects such as inventories or monitoring projects.

Public relations

Communication tools based on a corporate identity strongly help to visually present a concept to a large audience and to potential partners. The use of marketing tools, knowledge management tools and communication methods are vital when it comes to complex issues of nature conservation that are of broad public interest. The 25th anniversary of the end of the Cold War in 2014/2015 will provide yet another opportunity for extensive public outreach. Setting up the criteria for use of the European Green Belt logo would be the next step to ensure it is more widely used by partners of the initiative.

Participation and engagement

Continuing engagement is needed to support the process of building up an initiative. The future coordinators of the initiative have the potential to support partners through public relations, project proposals, identifying partners for joint activities and exchanging best practices. This structure enables the initiative to multiply successful approaches by making them known to a large network with similar goals. Governmental support and long-term contributions by NGOs and foundations have been critical elements for building the initiative. Their efforts are complemented by more short-term involvement of other actors. Intensity of the cooperation with national focal points depends very much on continuity and personal motivation. Stronger involvement of IUCN Commission members⁷ could help further the initiative. The interest from similar approaches in South Korea for conservation of the Demilitarized Zone (DMZ) (Ministry of Environment Republic of Korea 2005) and from North America in the

7 IUCN builds its work on six voluntary expert Commissions. For more information, see www.iucn.org

European Green Belt approach vividly proves the social franchising potential of the initiative.

Skilled individuals

Skilled and spirited individuals are of critical importance for the success of a multi-stakeholder conservation initiative. The personal component is crucial in a network that depends on communication, creativity and cooperation both outside and within the conservation sector, as is the gift of “translating” among the different sectors. In order to make full use of available personal capacities, the involvement of further experts and “ambassadors”, e.g. in a steering committee with coordinators of the initiative, is being discussed.

Permanent funding

Stable funding for the coordinative bodies would help to avoid dependence of an initiative that is set up for the long-term on project-based funding. While involvement in projects surely is a motivating factor, it impairs the actors’ abilities to fulfil their role in coordination, networking and joint project planning, while creating competition among potential partners.

Regulatory mechanisms

Although it has no official status as an international convention, EU legislation, etc., the initiative is widely known in the public. It has been periodically discussed whether the profile would be greater if it received official status, e.g. as an international convention or by nomination and designation as a UNESCO World Heritage Site. This could enhance the initiative’s outreach and create additional funding sources. As a tool for cooperation across borders between local communities on nature conservation and regional cooperation, the initiative forms an important instrument for fulfilling the national and international commitments made by decision-makers. Geographical and sectoral gaps could be filled by protected area establishment and project implementation. This might in the future be reflected by a memorandum of understanding with related international conventions.

Today, the European Green Belt connects national parks, nature parks, biosphere reserves and transboundary protected areas as well as non-protected areas along or across borders. It has become a tool for cooperation across borders between local communities and also an important instrument in fulfilling the national and international commitments made by decision-makers. Factors with the potential of slowing down the initiative are mainly related to gaps in funding and continuity,

and to the different degree of initiative partners to identify with its vision. Factors triggering engagement have led to sustained efforts to harmonize management methods for land use, nature conservation and regional development by working across administrative borders. Harmonized approaches, often hampered by the varying administrative, legislative and political situations on each side of a border, can be achieved by agreeing on joint goals in nature conservation and sustainable regional development and striving towards their realization by different means in different countries.



The European Green Belt is not the *limes*. Its vision will fade and be replaced by new visions and activities. For the future, there is a continuing need to manifest activities on protection regimes and sustainable regional development. Involvement of the local population in planning and management of protected areas and land use schemes is crucial. Success will strongly depend on strategies of integrating cultural landscapes into the conservation efforts along and across borders. Those may involve a possible role of the European Green Belt as a laboratory for sustainable development concepts, crisis prevention, conservation of biodiversity, mitigation of climate change or ecosystem services.

4. Dinaric Arc Initiative — An Innovative Approach in the Governance of International Cooperation

Dr. Giorgio Andrian¹

Preamble

The acceleration of international cooperation processes fostered by globalisation is calling for significant reorganisation of environmental governance regimes. The current reform of the United Nations is one of the most significant examples; the slogan “delivering as one” synthesizes the attempt of

governance systems in Europe. In fact, it is a “*broad framework of cooperation*”², established in 2004, and since then has embraced a growing number of international organisations, ranging from UN agencies (both regional and country offices), to intergovernmental organisations (IGO) and large- and small-scale non-governmental organisations (NGOs). Their common ground was the fact that they all operate in South-Eastern Europe (SEE) for the protection and promotion of natural and/or



© IUCN / Tomasz Pezold

providing a more coherent action framework to the various agencies and programme activities, to be implemented at the country level. The lack of governance models in place within this reorganisation process is leading to the constant adoption of ‘experimenting and adjusting’ approaches. Rigid hierarchical and top-down oriented approaches have proven to be very limited, and sometimes completely counterproductive, in coping with rapid changes. On the contrary, flexible and concerted actions are demonstrating to be better solutions in times of reform.

The Dinaric Arc Initiative (DAI) represents one of the most interesting examples of innovative environmental

cultural heritage. Nevertheless, this was just the initial consideration based on a long and consistent series of steps directed towards consolidating the common interest leading to a joint vision - the ultimate goal being that of creating “*an added value to the ongoing programmes and activities of all the partners*”³. The DAI brochure well reflects this process, which led to the identification of the key common elements: namely, the conservation of natural and cultural resources and heritage of the Dinaric Arc region, and their promotion and valorisation through the involvement and empowerment of the local communities and coordination of sectoral policies⁴.

1 Consultant, UNESCO Regional Bureau for Science and Culture in Europe (BRESCCE), Italy. The opinions expressed in this paper do not reflect the official UNESCO position, but exclusively the author’s point of view.

2 Source: DAI brochure: www.dinaricarc.net/dai.html

3 *Ibid.*

4 *Ibid.*

The *incipit* was offered by the WWF⁵ Mediterranean Programme Office at a meeting organised in Rome in December 2004. This meeting turned to be the most significant follow up of the *Joint International Workshop on 'MAB Biosphere Reserves and Transboundary Cooperation in the SEE Region'*, co-organised by UNESCO-ROSTE⁶ and IUCN, and held in Belgrade and Tara National Park (Serbia) on 13–17 June 2004.

From that event on, the DAI group kept expanding, and by its 13th regular meeting, organised by EuroNatur (Ulcinj, Montenegro, November 2010), DAI consisted of fifteen members: WWF, UNESCO BRESCE, IUCN⁷, UNDP⁸ (country offices of Croatia, Bosnia and Herzegovina, Montenegro and Albania), UNEP⁹, FAO¹⁰, Council of Europe¹¹, ECNC¹², REC¹³, EuroNatur, SNV¹⁴, and CIC¹⁵.

What is the secret of (relatively) long-lasting cooperation, which is rooted neither on any legally binding framework nor on any specific financial support? In the attempt of providing an answer, the following paragraphs recall the major 'evolutionary steps' taken since the Rome meeting.

The ecoregional approach: how it all began

During the first meeting, there was only one document on the table: the map of the 'Dinaric Arc ecoregion', as defined according to the WWF rationale. The proponent immediately clarified that the term 'ecoregion' meant a *"large unit of land or water containing a geographically distinct assemblage of species, natural communities, and environmental conditions"*.¹⁶ The assumption of the need to identify and operate at the ecoregional scale was further clarified: *"biodiversity is not spread evenly across the earth but follows complex patterns determined by climate, geology and the evolutionary history of the planet. These patterns are called 'ecoregions'"*.¹⁷

IUCN immediately recognised the validity of the approach and identified possible links with its own work in the region, while UNESCO stated it would be limiting to focus exclusively on a nature conservation approach. The cultural



Figure 4.1: First DAI map (2005)

component was therefore included in the following documents to better encompass the broad concepts of resources and heritage in the region.

The meeting created a foundation for solid cooperation, which would bring interesting results in the coming years.

Mapping the enterprise: an 'enlarging' geographical scope

The original map, reproducing the WWF-proposed 'Dinaric Arc ecoregion', represented the initial geographical scope of the DAI members, the core of the area being marked by the Dinaric Mountains mixed forests, a sub-unit of the European-Mediterranean mountain mixed forests, one of the 238 Global Ecoregions as identify by WWF.¹⁸

The discussion on the borders of the DAI geographical scope was just at its very beginning. In fact, it would remain one of the most vivid debates within the group throughout the years, reflecting the need to adopt a flexible approach in 'drawing the line'.¹⁹ The scientific rationale of the ecoregional approach admits that *"the boundaries of an ecoregion are not fixed and sharp, but rather encompass an area within which important ecological and evolutionary processes most strongly interact"*.²⁰ In this respect, it is particularly meaningful to compare the maps included in the two versions of the DAI brochure. In the first, edited in 2005 (Figure 4.1), the borders of the ecoregion were well defined, even if the scale of the drawing does not allow for the precise recognition of territorial limits. In the second version from 2007 (Figure 4.2), there is a 'buffer zone' surrounding the original 'core area', which intends to

5 The World Wide Fund For Nature (formerly the World Wildlife Fund (www.panda.org).

6 The name of the UNESCO Venice Office at that time was *Regional Bureau for Science and Technology in Europe* (ROSTE). More recently, the same office changed its name into *Regional Bureau for Science and Culture in Europe* (BRESCE) (www.unesco.org/en/venice).

7 International Union for Conservation of Nature (www.iucn.org).

8 United Nations Development Programme (www.undp.org).

9 United Nations Environment Programme (www.unep.org).

10 Food and Agriculture Organisation of United Nations (www.fao.org).

11 Council of Europe (www.coe.int).

12 European Centre for Nature Conservation (www.ecnc.org).

13 Regional Environmental Centre (www.rec.org).

14 Netherlands Development Organisation (www.snvworld.org).

15 International Council for Game and Wildlife Conservation (www.cic-wildlife.org).

16 www.panda.org/about_wwf/where_we_work/ecoregions/about/what_is_an_ecoregion/index.cfm

17 *Ibid.*

18 *Ibid.*

19 For the importance of the border identification in nature conservation, see Fall J. (2005). *Drawing the line. Nature, hybridity and politics in transboundary spaces.* Farnham (UK): Ashgate.

20 See footnote 6.



Figure 4.2: Second DAI map (2007)

reflect the idea that the borders are more indicative than merely reproducing bio-physical criteria.

Within the borders of the large biogeographical scope, DAI members soon came to discuss possible cooperation in more specific areas. The case of the transboundary Skadar Lake²¹ between Montenegro and Albania was the first and one of the most successful 'territorial approaches' of the Initiative. The second DAI meeting (2005) was hosted by UNDP Montenegro and led to the preparation of a joint activity on Skadar Lake. A two-day conference entitled "*Lake Skadar International Designation for Territorial Development*" took place in Vranjina (Montenegro) and Shkodra (Albania) in October 2005, followed by a one-day DAI members meeting, and a three-day NGO training session on communicating protected areas, organised by IUCN.

Pioneering the 'delivering as one' approach, DAI members were soon confronted with the wide spectrum of other international organisations and donors present in the same territories. This induced the DAI members to reflect on the need to find a way to harmonise various operating frameworks in order to avoid overlapping and duplication. The idea of creating a joint *road map* for Skadar Lake emerged soon afterwards, parallel to increasing consultations with the Montenegrin and Albanian Governments. Both countries realised the difficulty of coordinating the various donors and organisations that were active in the same territories, and they were looking for the possibility of support in this delicate mapping exercise. In the *road map*, an initial listing of the activities and projects each DAI member in a given region was followed by identification of possible fields of common interest and potential synergies towards a converging vision. This approach soon became one of the key specificities of the DAI partnership. The road map format was used in other sites of common interest (e.g.

²¹ Skadar/Shkodër Lake extends for about 445 km², and is the largest freshwater basin in the SEE region.

the Durmitor area), as an effective way to identify gaps and further potential synergy to generate joint activities. In addition to site-specific road maps, DAI members had already created a more general common database, which has allowed for a constantly updated list of all member activities and projects. Soon, this was perceived as a very useful tool for internal harmonisation and for external communication.

Joint actions for common success

Meeting by meeting, activity by activity, the DAI 'coalition' has been growing tremendously since its beginning, demonstrating that the mixed constituency (UN agencies, IGOs and NGOs) and the non-legally binding operational framework are the key elements of consolidated and concerted action. Additionally, promoting site-focused joint actions (what the DAI calls a 'territorial approach') has proven to be the most effective way of dealing with joint initiatives.

DAI partners organised a joint side event during the *6th Interministerial Conference on the Environment* (within the framework of the 'Environment for Europe' process), held in Belgrade in October 2007. The entire set of DAI activities was presented at the event, reflecting the high level of 'diversity'—in both constituency terms and operational approaches—which is well incorporated into the DAI group. On the other side, focussing on specific territories (e.g. Skadar Lake, Durmitor) and designing common *road maps* proved to be a very effective work method, and an extremely powerful communication tool. When asked by the public about their reasons for joining DAI, individual organisation members replied by saying that the informal and effective platform put in place was considered to be the most efficient way to remain informed and to create synergies and joint activities. In doing so, each one saw its own competitive advantage, primarily through better highlighting by the group effect, in combination with the benefits offered by the organisation of joint events and the exchange of one another's expertise.

After that joint presentation, DAI members realised how strategic it would have been to challenge the group by creating a completely new joint initiative in order to merge forces and multiply beneficial effects. It was clear that a project proposal presented to a donor and endorsed by more than one DAI partner might have a better chance of success.

The challenge of working together

In the following years, individual members took the chance to promote specific projects and activities to be carried

out in cooperation with other interested counterparts. The most prominent examples are presented briefly below, in chronological order.

Community-based rural development and natural resource management in the Dinara area

In April 2008, a multidisciplinary team of international and national experts from DAI partner organizations undertook a joint project formulation mission in order to support sustainable rural development and natural resource management of the Livanjsko polje²² and Sinjsko polje located in Bosnia and Herzegovina and Croatia, respectively. The team held meetings with stakeholders in the area, including the ministries in charge of agriculture, environment and economy, representatives of tourism boards, farmers' associations and NGOs from both countries. Field visits were organised to farms, rural communities and tourism businesses. A broad range of topics was discussed and stakeholders' needs identified.

Based on the findings, the team led by FAO formulated a project proposal for submission to international donors during a specific conference, which was to be organised. The project focused on fostering the development of agricultural commodity chains, based on high quality and value added products of the region. Developing rural tourism would contribute to the diversification of income sources for the rural population. The project also intended to promote the natural and cultural values linked to the karst *polje* areas and the surrounding areas, and to support cross-border river basin management and sustainable management of grasslands. Unfortunately, the joint proposal was not attractive enough to many of the identified donors and there was no specific financial support. Nevertheless, it remained the first structured attempt in mobilising the DAI 'collective expertise' in designing and formulating a joint project proposal, having both UN and NGO components on board. This proved to be successful on later occasions.

'Big Win for the Dinaric Arc'

"I regret that the rest of the world is not here to see what can be achieved in a region with heavy historic burden", said Mr. Tamas Marghescu, then Director of the IUCN Regional Office for Europe, during his speech given at the end of the 'Big Win for the Dinaric Arc' ceremony. The event was organised by the DAI partners and led by WWF on 29 May 2008, during the 9th Conference of the Parties to the Convention on Biological Diversity in Bonn (Germany).

Five Ministers and one State Secretary of the authorities

²² The term *polje* refers to a large (several km long) closed plain/depression within karstic terrain. It is used extensively for agricultural purposes. In this article, the original term 'polje' is preferred to its most common English translation ('field').



responsible for nature conservation in Albania, Bosnia and Herzegovina, Croatia, Montenegro, Serbia and Slovenia stood one to another, representing the high commitment of the respective countries. The Governments signed a Joint Statement on conservation and sustainable development of the Dinaric Arc ecoregion. This event symbolised the evolution of the DAI in terms of joint action with well-defined targets. On that occasion, each Minister announced the national conservation priorities for the Dinaric area, to be followed and implemented in the coming years. DAI members identified this approach as a more effective way to make governments accountable to donors, and the civil society in general, when coupled with their public commitments.

Environment for people in the Dinaric Arc

Building on the strengths of the 'Big Win for the Dinaric Arc' Joint Statement (see point 5b above), IUCN, WWF and SNV initiated a three-year project (2009–2012) entitled "Sustaining Rural Communities and their Traditional Landscapes through Strengthened Environmental Governance in Transboundary Protected Areas of the Dinaric Arc"²³.

The project, also called "Environment for People in the Dinaric Arc" is financially supported by the Ministry of Foreign Affairs of Finland. It was *"designed to promote the natural and cultural values of the area while enhancing local livelihoods through improved regional cooperation and strengthened environmental governance"*²⁴. A broad range of activities has been initiated by the three partner organisations, involving transboundary protected areas in Albania, Bosnia and Herzegovina, Croatia, Montenegro and Serbia. The principal objectives of the project are to foster sustainable development, build the capacity of rural

²³ www.iucn.org/about/union/secretariat/offices/europe/places/belgrade/projects/?6330/Environment-for-People-in-the-Dinaric-Arc

²⁴ *Ibid.*

communities and increase transboundary dialogue in the region through stakeholder participation, and to integrate the activities of the work plan into broader European frameworks for nature conservation.²⁵ Key policy and action frameworks such as the European Green Belt, Countdown 2010 and Natura 2000 have been promoted to local and regional stakeholders as tools for achieving environmental and sustainable development objectives in the Dinaric Arc region. Most of the project design elements were taken from previous DAI experiences and, interestingly, its implementation brings 'oxygen' to the partners' 'business as usual', in terms of providing more resources to traditional natural and cultural conservation



© IUCN / Boris Ege

activities. Ultimately, it offers unique opportunities to organise large-scale meetings and involve a significant number of stakeholders.

The Prokletije/Bjeshkët e Namuna cross-border rural development programme

With the facilitation of SNV, a specific part of the "Environment for People in the Dinaric Arc" project resources was dedicated to developing a cross-border activity for the Prokletije/Bjeshkët e Namuna Mountains, a remote region shared between Albania, Kosovo and Montenegro. Inadequate physical and institutional infrastructure, absence of investment and entrepreneurs, and lack of long-term, comprehensive land use planning have led to a widespread feeling of neglect and massive emigration and rural abandonment. In order to reveal the needs of the region and assess the way forward, a planning team met with a wide range of organizations and individuals throughout the region and researched public documents and regional publications.

The central objective of this set of activities was to improve the socioeconomic conditions of people in this region, with the inclusion of significant trans-national

ecological and peace-building elements. The Prokletije project provided a unique opportunity, not only to make a positive and transforming impact on the lives of some of the poorest people in Europe, but also to offer a lasting contribution to one of the remaining unspoilt 'ecological gems' of the region. The initiative has brought tangible benefits of peace to communities torn apart by strife, and it has established a model of transboundary cooperation and development.

'Downgrading' or 'upgrading': which scenario for the DAI future?

After six years of regular meetings, held twice a year in different locations and organised in rotation by various members, the DAI community confronted what could be called 'enlargement fatigue'. An intensive discussion occurred at its latest thirteenth meeting, held in Montenegro in November 2010, in order to identify both the strong and weak elements of the platform, and to see which could be the best way to move forward.

The same elements that have always been recognised as the DAI advantages—such as the genuine common intentions towards conservation of nature and culture (the 'DAI' spirit), the lack of formal commitments, the capacity of mobilising resources by jointly lobbying—soon became the limits of the platform development, as the number of participants continued to grow.

The discussion ended by identifying two possible future scenarios for the DAI. The first is to reduce the initial ambitions and to maintain the Initiative as a well functioning platform for cooperation. The second is to 'upgrade' in terms of obtaining a properly structured and formalised body to cope with the growing complexity of member numbers and activities. A consensus was reached to devote the next DAI meeting exclusively to internal governance issues.

²⁵ For further details, see <http://www.dinaricarc.net/project.html>.

5. Prespa Lakes — Where Green Diplomacy Wins

Aleksandar Ivanovski¹

Geography of the area

A region of two lakes, unified by natural beauty, lies within three countries having varying economic status, environmental awareness and policies, but sharing a bold ideology for integrated transboundary ecosystem management and protection. The Prespa Lakes catchment area spans Albania, Macedonia and Greece, and includes Great and Small Prespa Lakes with the permanent or

The total area of the Prespa basin is approximately 1,600 km², of which 62% lies in Macedonia, 17% in Albania and 21% in Greece. The pearl of Albania's part of the Prespa Lakes is the 13,500 ha Prespa National Park (designated in 1999), which extends from the mountain massif of Mali i Thate to the south and east to encompass the Albanian end of Mikri Prespa bordering with Greece. Prespa National Park in Albania and Galičica National Park in Macedonia are part of the same mountain massif. There are three protected areas designated within Macedonia's part of Prespa: Galičica National Park, designated in 1958, Pelister



© Aleksandar Ivanovski

seasonal streams feeding the two lakes. The diversity of geomorphologic forms, distinctive hydrology and unique biodiversity makes the entire Prespa Lakes Basin a supreme legacy, housing enormous importance and intrinsic value. The Prespa basin has a unique assemblage of species and habitats, which reflects the adaptation of flora and fauna to the different geological substrate in each mountain range (mainly silicate and limestone), different soil types, range in altitude (850–2641 m) and the influence of both Mediterranean and continental climates. It also reflects the isolation of the aquatic flora and fauna of the lakes over the last 12 million years, and the relative isolation of the high altitude flora and fauna on the surrounding mountain ranges, which acted as refuges during the Pleistocene ice ages.

National Park, designated in 1948 with a developed and operational management structure, and the Ezerani Strict Nature Reserve, designated in 1996 and currently undergoing national processes for revalorisation and re-proclamation and without any active management. On the Greek side, Prespa National Forest was designated in 1974 following the establishment of Prespa National Park in 2009 for protection of the majority of the catchment area of Great and Small Prespa Lakes and focussing on the terrestrial part of Greek Prespa. Moreover, Prespa Lakes basin as a whole is a Wetland of International Importance under the Ramsar Convention. Conservation of this ecosystem opens the path to trilateral cooperation and development of agreements that serve as a tool for green diplomacy.

¹ Project Specialist, UNDP, Macedonia.

Approximately 29,343 people live in the Prespa Lakes Basin: 57% of the total Prespa population lives in Macedonia within the Municipality of Resen, 36% live in Albania within the Communes of Liqenas and Proger, and the remaining 7% live in Greece within the Municipality of Prespa. The main source of income and by far the most important productive sector is agriculture. Of the total employed labour pool in the Prespa Basin, approximately 75% are engaged in agriculture.

Main milestones in developing transboundary cooperation

The transboundary cooperation process in Prespa Basin began on 2 February 2000, when the Prime Ministers of Albania, Macedonia, and Greece signed a Joint Declaration in the village of Aghios Germanos. The Declaration of the Creation of the Prespa Park by Albania, Macedonia and Greece stated that *“the Prespa Lakes and their surrounding catchment are unique for their geomorphology, their ecological wealth and their biodiversity, which gives the area significant international importance. The conservation and protection of an ecosystem of such importance not only renders a service to Nature, but it also creates opportunities for the economic development of the adjacent areas that belong to the three countries.”* The Declaration declares the Prespa Lakes and their surrounding catchment as Prespa Park, which is considered the first attempt to designate a transboundary protected area in South-Eastern Europe. The Resolutions of the Declaration promised *“enhanced cooperation among competent authorities in the three littoral countries with regard to environmental matters. In this context, joint actions would be considered in order to maintain and protect the unique ecological values of Prespa Park, prevent or reverse the causes of habitat degradation, explore appropriate management methods for the sustainable use of Prespa Lakes water, and spare no efforts so that Prespa Park becomes a model of its kind as well as an additional reference to the peaceful collaboration among our countries.”* The initiative which led to the Prime Ministers’ Declaration was top-down and, initially, the participation of local stakeholders around the lakes in this decision was very limited (Bogdanović 2007). And yet, the declaration successfully laid the foundation for the significant transboundary work that has followed.

After signing the Prespa Agreement, the three Ministers responsible for the environment from the respective countries established the Prespa Park Coordination Committee (PPCC) in 2002, as a non-legally binding entity whose members are appointed by the three Ministers. Membership of the PPCC is comprised of one representative from each of the following institutions from each of the three countries: Ministry responsible for

environment, NGO, local government, and a permanent MedWet² observer. The main drawbacks of the functioning of the PPCC are that the three governments have no legal commitment to support the PPCC and that PPCC decisions serve more as advice than as legally binding commitments for the three states. A PPCC Secretariat was formed by three NGOs, one from each country, and received the strong support of WWF-Greece, which has funded the Society for the Protection of Prespa (SPP) for hosting the Secretariat.

The green or environmental diplomacy in the Prespa Region is oriented towards two main objectives. One is utilising environmental disputes or solutions as a means of resolving certain political issues between the three countries, while the second is towards using political tools to resolve environmental issues between the countries (Ivanovski 2010). Currently, foreign diplomacy between Greece and Macedonia is locked with a rusty iron key over the famous 15-year dispute over the nation’s name. Prespa is the ground where almost all political games are on hold. The main engine here is the environment. Its driving mechanism in 2010, on the tenth anniversary of the Prespa Park and beginning of trilateral cooperation, was the signing of a Tripartite Agreement for Protection and Sustainable Development of the Prespa Park Area. The agreement was signed by the three Ministers from Albania, Macedonia and Greece responsible for the environment, authorized by their Governments. The Agreement, free of politics, brings the legal commitment of the countries to protect this Balkan gem. It has clearly paved the way forward for the environmental protection of aquatic and terrestrial ecosystems and political will for cooperation between Albania, Macedonia and Greece.

Benefits and challenges

Before the transboundary initiative started in 2000, unsustainable resource management practice, from water and land-use planning to agriculture, forestry and fisheries, failed to maintain and restore the ecosystem health of the transboundary Prespa Lakes. Knowledge, experience and incentive barriers hampered the people’s ability to know, understand, and adopt new practices. Outdated, inappropriately-scaled land and water use practices obstructed stakeholders in finding effective and practical solutions to the problems. As a result, key habitats were being lost or degraded, globally significant species threatened, and stakeholders unprepared to manage a dynamic, ever-changing aquatic ecosystem of the Prespa Lakes. The transboundary initiative brought many changes.

One of the accomplishments of the transboundary collaboration was the creation of a “Strategic Action Plan

² Mediterranean Wetlands Initiative www.medwet.org

for the Sustainable Development of the Prespa Park” in 2002, as the first step in the development of a common vision for the conservation and sustainable development of the Prespa Basin. More specifically, the aim of the Strategic Action Plan³ was to facilitate, provide and share information with stakeholders, outline the Prespa Park objectives in order to facilitate future discussions and to describe in the clearest possible way the institutional, economic, management initiatives and procedures that should be taken in order to enable the accomplishment of the environmental objectives (Society for the Protection of Prespa et al. 2002). Although no formal commitments have been made to the Plan by the three governments or by any funding agencies, PPCC members have been actively pursuing funding for implementation of individual activities called for under the Plan.

This cooperation attracted many international donors who earmarked resources for infrastructural, thematic scientific studies and activities to further strengthen transboundary cooperation. Among the most prominent donors in the region are MedWet, KFW Development Bank, SDC, SIDA, NATO, SNV, GEF, and UNDP. Implementation of the UNDP-GEF Project “Integrated Ecosystem Management in the Prespa Lakes Basin of Albania, Macedonia and Greece”, better known in the area as the Transboundary Prespa Project, commenced in 2006, after several years of preparation. The project incorporates three executive components, a transboundary component, and national Albanian and Macedonian components. The Greek counterpart is the Scientific NGO Society for the Protection of Prespa. The overall objective of the Transboundary Prespa Project is to catalyze the adoption and implementation of ecosystem management interventions for achieving integration of ecological, economic and social goals. This objective is in line with the conservation of globally significant biodiversity and of pollution prevention and reduction. The health of the Prespa Basin ecosystem can only be conserved and maintained by changing the productive sector practices within the Prespa Basin. This represents the project strategy — to mainstream ecosystem management objectives and priorities into productive sector practices and policies. The project intends to strengthen the capacity for restoring ecosystem health and conserving biodiversity, initially at the national level, by piloting ecosystem-oriented approaches to spatial planning, water use management, agriculture, forest and fishery management, conservation and protected area management (UNDP/GEF 1997). The most important expected outcome of this project is that by laying foundations at the national level in the Prespa Basin, transboundary cooperation in resource

management and conservation will be strengthened by empowering the existing transboundary institution and piloting transboundary management and conservation activities.

The main developments giving the greatest contribution towards more effective trilateral cooperation are the following:

Development of a transboundary monitoring system

This is a joint activity of the UNDP-GEF Transboundary Prespa Project, the Society of Protection of Prespa and Tour de Vallat⁴. The monitoring system encompasses monitoring of land use, water quality/quantity, forests and other terrestrial habitats, birds, fish and fisheries, aquatic habitats and vegetation. The Transboundary Prespa Project oversees the development of the transboundary monitoring system through the coordination of the trilateral Monitoring and Conservation Working Group (MCWG). The overall responsibility of the MCWG is to guide the development of a consensus-based transboundary monitoring system that complies with global best practice principles, and to provide input to other scientific transboundary components of the Transboundary Prespa Project. Tour du Vallat plays the lead technical role in the development of the transboundary monitoring system.

Transboundary water management

An assessment of the state of play with regards to water management in the three littoral countries was completed in 2008. The Prespa transboundary water management process gained added value by up-scaling the cooperation from the then bilateral Greek-Albanian Commission on Water to also include Macedonia. This can be considered a significant impact of the Prespa Project in supporting the process on influencing important high level planning/decision making with regards to transboundary water management. The Project aims at the establishment and formal appointment of the Prespa Water Management working group.

Transboundary fish and fisheries – conservation and management planning

A situation analysis and proposal for further steps towards the establishment of transboundary fish and fisheries management planning were developed. It is planned that the proposed steps will be discussed and endorsed by the relevant Ministries of the three sides and concrete steps towards implementation will be undertaken.

³ www.prespapark.org/files/contentImages/file/Strategic_Action_Plan_2003_Executive_Summary.pdf

⁴ A research centre for the conservation of Mediterranean wetlands based in France.



Transboundary diagnostic analysis and strategic action planning process

Work on the second new Transboundary Diagnostic Analysis (TDA)⁵ and Strategic Action Planning (SAP) Process for Prespa is almost complete. The Prespa Project is working on updating the strategic vision for the Prespa Lakes Basin and on the updating of the SAP by applying the transboundary diagnostic analysis. The TDA report was finalized and objectives were drafted and discussed at a forum involving key stakeholders. It is expected that the SAP will be finalized, endorsed and adopted by the three governments.

Lessons learnt and future prospects

After signing the Tripartite Agreement for the Protection and Sustainable Development of the Prespa Park Area between Albania, Macedonia and Greece in February 2010, the three states have been in the process of ratification of the Agreement in their respective Parliaments. Each of the three states has nominated three representatives to form the new trilateral management body, the Prespa Park Management Committee. The members of the Committee include representatives of the national governments (Ministry responsible for environment), local governments (coastal municipality) and NGOs. Once the Agreement is ratified in the respective countries, the founding meeting of the Prespa Park Management Committee will be held to officialise its existence and work.

Crosscutting transboundary communications

Apart from the completion of both the PPCC website (www.prespapark.org) and the Prespa Project website (<http://prespa.iwlearn.org/>), a range of other communication materials was produced. The completion of the Communications, Education and Public Awareness Strategy (CEPA) for the PPCC marked the achievement of a significant milestone.

Transboundary habitat and species conservation action planning process

The Transboundary Prespa Project aims at strengthening the conservation of significant biological diversity through improved monitoring, targeted research and enabling protected areas to serve as effective refuges for biodiversity within the Prespa landscape. In this aspect, an initiative was launched for the identification of priority transboundary species and habitats. Its main task is to undertake small scale measures for the conservation of priority species and habitats and work towards development of action plans for selected species and habitats.

The political cliché of getting things done at the diplomatic round table must be resolved as a manner of playing excellence. Green diplomacy is winning the way of getting things done in terms of environmental protection and promotion (Broadhead 2002), while opening the doors for the resolution of high-level political disputes. The transboundary initiative for environmental protection in the Prespa Lakes Basin has paved the way for cooperation with scrupulous politics beyond borders. The state of play should be a win-win situation, though in this ideal case, it is even more so. It is a synergy of environmental benefits, political cooperation and most importantly – trust (Du Nann 1997). Trust among the three countries continues to serve as an appealing magnet for national and international donors who allocate their resources on the firmly built cooperation between Macedonia, Albania and Greece in the Prespa Lakes Basin.

⁵ <http://prespa.iwlearn.org/>

6. Pasvik-Inari Trilateral Park — Cooperation in the Arctic

Marina Trusova¹

Geography of the area

The Pasvik-Inari region, the area where the borders of Finland, Norway and Russia meet, is unique in many aspects. The valley of the Pasvik River stretches from Lake Inari towards the Barents Sea and forms a diverse habitat for a wide variety of plant and animal species. Some of these species reach the ultimate limits of their existence here.



© Pasvik - Inari Trilateral Park

The Pasvik River and the surrounding wilderness are located at the north-western edge of the taiga, boreal forest zone, extending northwards from the subalpine mountain birch forest. Large marshes surround the river, and the continuous pine forest fragmented by small bogs and lakes cover a vast area between Lake Inari and the Pasvik State Nature Reserve in Russia (Pasvik Zapovednik).

The climatic conditions of northern Europe are harsh

for plants, animals and people. The summer is short and winter lasts for months.

In this area, the three countries share both nature and history. This remote Arctic region has long since been inhabited by the Finnish, Norwegian, Russian and Sami people. The water system has been an important source of subsistence for the local inhabitants for centuries. Fishing and waterfowl hunting, reindeer husbandry, and agriculture represented the major sources of livelihood. The river was also an important transportation route to market places near the Barents Sea.

The historically significant Pasvik-Inari region is a meeting point of different cultures. For centuries, the Sami have lived in this area. Since the early Middle Ages, the Finns, Norwegians and Russians have settled in the Pasvik-Inari area. Although different cultures coexist here and have learned much from one another, they have retained their distinctive traditions.

Further historical events such as the signing of international treaties on the establishment of national boundaries, discovery and mining of iron, copper and nickel deposits, construction of seven hydro-electrical power (HEP) stations on the Pas River, and World War II gradually changed the Pasvik-Inari region. The events could not but affect the local population and nature management. This cross-border area is known all over the world as a quiet place, abundant in birds and fish. However, there are mining operations close to the national borders (in Nikel and Kirkenes), HEP stations, construction companies expanding their businesses, cattle and poultry farms, reindeer husbandry and border guards in the region. Although the locals still practise fishing, hunting and berry picking, human activities have considerably affected nature. Exploitation of natural resources has increased, as has degradation of the environment incurred by growing industry and transport.

Several protected areas in the three neighbouring countries were established to preserve these great wild territories. A vast trilateral cooperation area stretching across three national borders is protected, consisting of the Vätsäri Wilderness Area in Finland (1,550 km²); Øvre Pasvik National Park (119 km²), Øvre Pasvik Landscape Protection Area (54.2 km²) and Pasvik Nature Reserve in Norway (19.1 km²); and Pasvik Zapovednik in Russia (14,700 km²).

¹ Deputy Director of Ecological Enlightenment, Pasvik State Nature Reserve (Pasvik Zapovednik), Russia.

Milestones of historical development

The Norwegian part of Lake Höyhenjärvi (Fjærvann), as the part of the Pasvik River was proposed as a nature reserve in 1978 due to its great natural value. In 1989, when Russia and Norway signed their first bilateral agreement on environmental issues, the idea of a common Russian-Norwegian nature reserve was born. This idea was discussed at a meeting between the Office of the Finnmark County Governor and the Environmental Committee in Murmansk. Later, superior authorities on both sides gave their approval for further work towards a concrete proposition and the Norwegian-Russian Commission on Environmental Issues agreed on the proposition. After the first Norwegian-Russian inspection of the area in summer 1990, the Russian experts proposed that large tracts of pine forest on the eastern bank of the Pasvik River should be included in the reserve, which resulted in a much larger reserve than just Lake Höyhenjärvi (Fjærvann) in the Russian part. The first joint inspection was followed up by a number of Norwegian-Russian bird registrations and meetings.

In an agreement between Norway and Russia in 1990, nature protection in the border areas was considered in a broader perspective and Finland was also seen as a key partner. In 1991, environmental authorities from Russia, Norway and Finland first met in Kirkenes and again in Nikel. The conclusion was that the three countries should cooperate on nature protection and management in the Pasvik-Inari region at the local level. Furthermore, the parties aimed to ensure protection of a large intact natural area as a single entity. The Vätsäri Wilderness Area was established in Finland through the national Wilderness Act the same year.

Since 1991, annual trilateral meetings have been held on nature management and protection in the Pasvik-Inari region with the participation of: the Office of the Finnmark County Governor and the Directorate of Nature Management from Norway; Metsähallitus (Natural Heritage Services, Lapland), Ministry of the Environment, and the Lapland Regional Environment Centre from Finland; and the State Committee on Environment, Committee on Natural Resources and administration of Pasvik Zapovednik from Russia. Two intergovernmental agreements in the field of nature protection (Finland-Russia in April 1992 and Norway-Russia in September 1992) became the background for further development of the trilateral cooperation.

Pasvik Nature Reserve/Pasvik Zapovednik was formally founded on 16 July 1992 by virtue of a resolution passed by the Russian government, whereas the Norwegian part of Pasvik Nature Reserve was formally established

by a legal resolution on 15 October 1993. To distinguish the two parts, the Russian part is commonly identified as Pasvik Zapovednik and the Norwegian part as Pasvik Nature Reserve. In 1996, the Norwegian part received international protection status as a Ramsar site due to its rich and characteristic water bird fauna. The Russian part of the area has been proposed for Ramsar designation.

In 1999, the municipalities of Pechenga, Inari and Sør-Varanger were included in the trilateral cooperation on a permanent basis. The area of these municipalities delimits the actual area of the trilateral cooperation. The participants of the 2002 trilateral meeting decided to promote a common trilateral protected area in Pasvik-Inari, which could be established by connecting the adjacent protected areas that were already established. A newly established working group further developed this idea. In 2003, Øvre Pasvik National Park was extended, and Øvre Pasvik Landscape Protected Area was established. Finally, in that same year, a continuous natural area from Finland via Norway to Russia was protected.

Benefits and challenges

From March 2006 to January 2008, a jointly planned EU financed project (Interreg IIIA North Kolarctic Neighbourhood Programme/Tacis Programme) was implemented in the Pasvik-Inari area. The idea was supported by the Barents Council of Environment in the Declarations from the meetings held in 2003, 2005 and 2007. The project called for the promotion of nature protection and sustainable nature tourism in the Inari-Pasvik area, aimed at creating a more stable basis for trilateral cooperation. During the project, nature tourism facilities and networks between authorities and various interest groups were developed. Intensified cooperation in nature monitoring led to the testing of harmonised monitoring methods. In addition, comprehensive information materials about the area were developed. Effective cooperation was established, which was relevant for obtaining the status of a EUROPARC Transboundary Park to ensure long-term, high quality cooperation in nature protection and management in Pasvik-Inari.

Over the years of cooperation, mutually developed ideas were gradually formed. A SWOT analysis (Adams 2005) was carried out to clarify the strengths and weaknesses in the cooperation. By defining threats and weaknesses, it was possible to identify the fields of work where further action is needed.

The partners developed several common documents during project implementation, such as the Cooperation Agreement and Action Plan, and Guiding Rules for

Cooperation. In January 2008, the Cooperation Agreement was signed by Lapland Natural Heritage Services of Metshällitus (Finland), Pasvik Zapovednik State Nature Reserve (Russia) and the Finnmark County Governor (Norway). This agreement identified the focal areas of cooperation, and the organizations involved in the cooperation.

Development of the Action Plan began pursuant to the vision agreed by the decision-making body of the cooperation, the Advisory Board, established in 2008. The Advisory Board consists of the representatives of the main partners, and regional and local authorities of the three countries. Border guards, industrial companies, tourism operators and other stakeholders also take part in the annual Advisory Board meetings.

The Action Plan for Nature Protection and Sustainable Nature Tourism in the Pasvik-Inari Area forms the foundation of the international trilateral cooperation, mutually agreed vision, future objectives of the cooperation and joint strategies to achieve the set goals. This Plan is considered to be an advisory document for joint long-term activities. The Action Plan also includes basic information about the different nature, culture, history, legislation, land use and management, levels of nature protection, and national boundary legislations in the three countries. This knowledge is needed for planning joint actions.

Practical achievements of the trilateral cooperation in the Pasvik-Inari region are based on strategies and actions formulated in the Action Plan and Principles of sustainable nature tourism in Pasvik-Inari. These represent different areas of partnerships.

Cooperation in research and monitoring is represented by several joint monitoring projects conducted in the area where partners have focused on harmonizing monitoring methods for core species such as Brown bear (*Ursus arctos*), Golden eagle (*Aquila chrysaetos*), waterfowl and ants. Hair snares, as a new non-invasive method for obtaining samples for genetic analysis, was used by the partners in monitoring Brown bear. The hair samples were analyzed and compared with previous monitoring data, and provided important information concerning Brown bear populations in the Pasvik-Inari area. Bird registrations are also conducted by partners annually.

The partners contribute towards improving the communication and infrastructure between the countries. A hiking trail called Pilola Wilderness Trail was established between Finland and Norway with adequate facilities (route signage, information boards, signposts, fire places). The opening ceremony of the Pilola Trail was attended

by the Pasvik-Inari Trilateral Park representatives and representatives of regional and local authorities and tourism entrepreneurs from the three countries. Visitor facilities are regularly maintained. The partners also cooperate in an open air museum project on the border island Varlam in Russian Pasvik Zapovednik. Varlam Island is a regular venue for international festivals, celebrations and expert meetings.

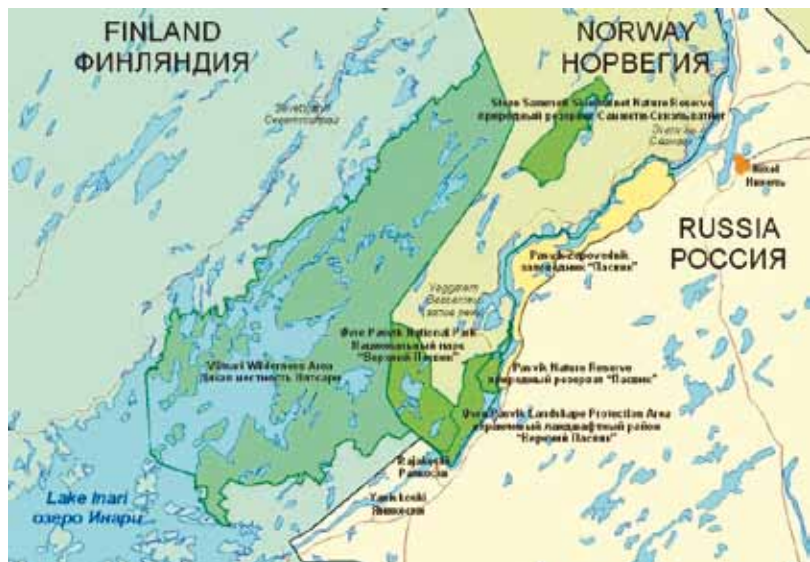


Figure 6.1. Pasvik-Inari Park map

Environmental education is promoted through support to the projects for school children, such as ‘Barents Environmental School in Rajakoski’, ‘Phenology of the North Calotte’ and through the publication of educational materials, such as a memory game for children called ‘Birds of Pasvik’, in the three native languages.

The brochure ‘Pasvik-Inari nature and history shared’ was jointly produced by partners to popularize the area with the public. It is distributed at various events, conferences, seminars, etc.

Pasvik-Inari Trilateral Park shares a common logo and the website² is available in four languages: Norwegian, Finnish, Russian and English. The Office of the Finnmark County Governor is responsible for its updating, while the Finnish and the Russian partners provide material for the pages.

To strengthen trilateral cooperation, the partners applied for the “Transboundary Park—Following Nature’s Design” certificate, which was awarded to the Pasvik-Inari Trilateral Park by the EUROPARC Federation in 2008. This certificate brings new opportunities for cooperation in the field of nature management, and increases the possibilities for nature based tourism. It gives the park the possibility of keeping the nature of this land protected for the generations to come. The certificate brings national and international recognition to the partners’ work and raises the profile of the Pasvik-Inari area.

2 www.pasvik-inari.net

There are many unofficial contacts between the partners, which is important for fruitful cooperation. In 2008, the 15th anniversary of Pasvik Nature Reserve and Pasvik Zapovednik was jointly celebrated by crossing the bordering Pasvik River. The Pasvik-Inari trilateral ski team presented the common protected area during the 'Barents Friendship Skiing Event'. This annual festive skiing event crosses the three national borders.

Lessons learnt and future prospects

The partners are unanimous in defining the strengths of the cooperation. Long-term cooperation is seen as the most important strength. The people are familiar with one another and with the expertise of other partners. The established tradition of yearly trilateral meetings has created a stable basis for future work. Internal weaknesses are also recognised and partners are aware of the differences in legislation and management of the national protected areas, and of the non-standardized restrictions that are unique to each country. Differences in the ways projects are managed and the need for external funding are recognized. The internal exchange of information is affected by a lack of understanding, as there is no mutual language between the three countries, while more attention should be paid to external information. However, increased interest for local level cooperation and involvement of local interest groups is considered a great asset.

According to the survey (Metsähallitus Natural Heritage Service Lapland et al. 2008), there are many opportunities for developing cooperation. The wilderness, natural and historical values are remarkable opportunities. Several possibilities for future development are present, especially within Russia. However, unpredictability in the policies

concerning tourism and the border zone area is one of the main obstacles for more secure development of cooperation. Conflict between different interest groups is possible, though the partners believe that this problem can be averted through the open dissemination of information and involvement of the locals. The telecommunication and transportation connections between the countries and accessibility of some areas are an issue, as Russian border regulations require foreigners to obtain a Russian visa and Russian citizens to acquire special permission to visit the border area. There is a need for new road connections and changes in border formalities.

The annual meeting of the Pasvik-Inari Trilateral Park Advisory Board took place in Finland in September 2010. The participants accepted a new structure of trilateral work for the future period and identified the priority actions for 2011 from the Action Plan. The countries plan to compile a common Red List and continue with long term monitoring of the Brown bear. A transboundary pilot tourism tour of all three countries is also envisaged. The partners are working on an application for ENPI CBC 2007–2013 Kolarctic financing for a new common tourism and nature educational project.

The Ministers of Environment of Finland, Norway and Russia signed a Memorandum of Understanding on 17 February 2010 to plan the activities integrated in the Green Belt of Fennoscandia as a part of the European Green Belt. The Memorandum is also considered a planning document for the future development of the Pasvik-Inari cooperation.



7. East Carpathians — The World's First Trilateral UNESCO Biosphere Reserve

Zbigniew Niewiadomski¹

Geography of the area

The transboundary East Carpathians Biosphere Reserve (ECBR) is the world's first trilateral biosphere reserve designated by the UNESCO-MAB Programme, involving Poland, the Slovak Republic and Ukraine. Throughout

transboundary protected area in the Carpathian Mountains divided by the external borders of the European Union (since 2004) and of the Schengen zone (since 2007).

The ECBR area (48°53' to 49°22'N; 22°02' to 23°00'E) extends along the meeting point of the state borders of these three countries, where the border ridge between Poland and the Slovak Republic forms part of the European



© Zbigniew Niewiadomski

history, the state borders in this region have often changed, with some areas of the ECBR belonging in succession to six or seven different countries within the living memory of a single generation. It is one of the few regions of Europe where nature conquered vast areas, formerly managed and overpopulated, but later abandoned as a result of the military operations of World War II, which lasted here from 1939 to mid-1947. It is also an area where transboundary cooperation helped to rebuild friendly relationships between nations that lost tens of thousands of people in armed ethnic conflicts in the 1940s and were additionally separated by a border fence under the Communist regime (Niewiadomski 2005). At present, the ECBR is the only

continental divide, separating the catchments of the Baltic and Black Seas. The ECBR harbours sources of two large rivers, Dniester and San. The ECBR encompasses an area of 213,212 ha, of which 53.4% lies within Poland, 19.1% in the Slovak Republic and 27.5% in Ukraine. This mountainous area with an altitude range of 210 to 1,346 metres is highly afforested (depending on the sub-region: from 52 to 67% on the Ukrainian side and up to 80% on the Polish and Slovak sides). The ECBR encompasses natural Carpathian fir-beech and beech forests, including pristine tree stands (Brey Meyer and Noble 1996), some of which have been protected since 1728², and which were included on the

¹ Senior Consultant, UNEP Vienna.

² One of the areas designated by the local law/municipal authorities as the 'Protected fir and beech forest under Riaba Skala'.

World Heritage List in 2006 as the Primeval Beech Forests of the Carpathians World Heritage Site. This is a natural transboundary area. Another distinctive landscape phenomenon is the presence of the “*poloniny*” subalpine meadows that stretch above the upper forest line. The ECBR is one of the most important refuges for large animals of primeval habitats of Europe, still supporting viable populations of all native large carnivores, i.e. brown bear, wolf, lynx and wildcat, all large native herbivores such as the red deer, and reintroduced free-roaming European bison, beaver and the primitive *Hutzul* horse. The area also preserves rich cultural heritage such as sacral wooden architecture dating back to 1645 or the narrow-gauge forest train built in the late 19th century. In 1998, the Council of Europe awarded two national parks in the ECBR with the European Diploma distinguishing well-managed protected areas of outstanding natural values. A large part of the ECBR constitutes one of the most important and largest Natura 2000 sites in the Carpathians.

The population density of the different sub-regions of the ECBR varies from less populated vast wild spaces on the Polish side to the relatively densely populated Ukrainian side (UNESCO 2000) with cultivated valleys, hay meadows and pastures. Forestry remains the main local economic activity, while tourist services are becoming the major source of income on the Polish side. Agriculture is limited to cattle and sheep breeding, and small-scale farming utilizing traditional land-use patterns.

Transboundary cooperation in the ECBR had to overcome prejudices and hostile attitudes resulting from the cruel history of World War II, when the Nazis exploited the sovereignty aspirations of the Ukrainians and instigated them towards the extermination of Jews and Poles between 1941 and 1944. The Polish and Soviet Communist regimes retaliated in 1944 with the decision to deport all inhabitants of Ukrainian origin, which continued until mid-1947, and the Polish side remained a deserted ‘prohibited zone’ with no remaining settlements. Nevertheless, Polish-Slovak relations have always been friendly, while the political context for cooperation with Ukraine became favourable in 1991 when Poland was the first country to recognise its independence, and later developed a strategic partnership with the objective of fostering the future rapprochement of Ukraine and the EU.

The ECBR is in fact a transboundary network of six adjacent protected areas including three national parks (IUCN Category II) and three landscape parks (IUCN Category V): Bieszczady National Park (established in 1973; 29,202 ha), San River Valley Landscape Park (established in 1992; 33,480 ha) and Cisna-Wetlina Landscape Park (established in 1992; 51,165 ha) in Poland; Poloniny National Park

(established in 1997; 29,805 ha) and its buffer zone of 10,973 ha in the Slovak Republic; Uzhanskyi National Nature Park (established in 1999; 39,159 ha) and Nadsyanskyi Regional Landscape Park (established in 1998; 19,428 ha) in Ukraine. Therefore, protected area administrations were the main partners developing transboundary cooperation in the ECBR. However, according to national legislation, only two national parks (Bieszczady and Uzhanskyi, encompassing some 32% of the ECBR area) have exclusive land ownership and management rights (including forests) within their boundaries, paired with adequate staffing and budgeting. The remaining four protected areas do not directly manage their territories and have much smaller personnel and budgets, which limits both their operational capacities and their capacities for cooperation. Another important partner of transboundary cooperation was the Eastern Carpathian Biodiversity Conservation (ECBC) Foundation, which until 2007 provided not only financial support but also initiated common activities within the ECBR. Other partners involved in cooperation were scientific institutions, forest administrations, local self-governments and NGOs.

Milestones of historical development

The ECBR transboundary region, as a shared natural treasure, should be approached as a single coherent unit with harmonised management practices. The vision of a transboundary protected area of international significance was the original incentive for developing transboundary cooperation in the ECBR and for the joint lobbying in the 1990s for the extension of existing protected areas and establishment of new ones in the region. Another challenge that intensified cooperation was the accession of Poland and the Slovak Republic to the EU in 2004. The Board of the ECBC Foundation realised that the new Member States would prepare their areas of the ECBR for implementation into the Natura 2000 concept, while both neighbouring protected areas on the Ukrainian side would neither be involved nor benefit from the EU enlargement. Since 2003, joint activities have primarily been targeted at capacity building for the Ukrainian partners, facilitating their further involvement and cooperation.

In May 1991, three neighbouring protected areas, Bieszczady National Park (PL), Vychodne Karpaty Protected Landscape Area³ (SK) and Zakarpates Forest Authority⁴ (UA) signed an agreement on cooperation, which was confirmed by the trilateral Protocol on cooperation in establishing the international biosphere reserve in the Eastern Carpathians, signed by the Ministers of Environment in

³ Part of the Vychodne Karpaty PLA was integrated either in the Poloniny National Park or its buffer zone, and designated as a biosphere reserve, while the remaining part of Vychodne Karpaty PLA is adjacent to the EBCR.

⁴ Responsible for Stuzhitsu Landscape Reserve, which later became part of the Uzhanskyi National Nature Park.

September 1991. In November 1992, UNESCO designated the bilateral Polish-Slovak 'East Carpathians/East Beskid' Biosphere Reserve, while Stuzhitsa Landscape Reserve in Ukraine received separate designation in 1993. The common ECBC Foundation was registered in Switzerland in 1995, and it launched its first small grant programme for NGOs and local communities in 1996. In December 1998, UNESCO designated East Carpathians Biosphere Reserve as the world's first trilateral biosphere reserve. In 2001, the ECBC Foundation opened its Representative Office in Poland, and appointed the ECBC country coordinators for the Slovak Republic and Ukraine in 2002. In 2003, the ECBC Foundation gathered managers and experts from all protected areas constituting the ECBR for the first time, and in 2004 launched its transboundary cooperation grant programme and initiated the first common thematic expert working groups in ECBR. In 2006, political turbulence in Poland resulted in staff changes in parks and changed attitudes towards international cooperation. The same year, the ECBC Foundation suspended its programmes and closed its office in the region. Since 2007, cooperation in the ECBR has been limited to the annual scientific conference held on the Polish side.

Transboundary cooperation in the ECBR was initially based on formal agreements, including the inter-ministerial Protocol of 1991, trilateral Agreement of 1992 and Minutes of Understanding of 1993 which established the ECBC Foundation, financially supporting common activities. However, transboundary cooperation in the ECBR developed further due primarily to good informal relationships between protected area managers and scientists from all three sides.

Benefits and challenges

The ECBR can be best described as the 'transboundary region of differences' (Niewiadomski 2006a), a conglomerate of four sub-regions separated by mountain ridges and state borders, and each having different history, language, culture, population size and density, demographic trends, land ownership structure, patterns of land-use and nature protection, as well as different models of forestry management and agricultural practice, economic development, employment and welfare rates. These factors automatically result in different conservation and development priorities on each side. Moreover, the different legal powers of protected area administrations combined with different levels of funding resulted in incompatible protected area capacities, sizes of staff and its professional skills and qualifications, and motivation for joint activities, which is an additional obstacle for cooperation. Another challenge for cooperation is the size of the ECBR (2,132 km²), together with an underdeveloped

network of roads and border crossings, and the visa regime at the perimeter of the Schengen zone. This is also why direct personal contacts between the administrations of two adjacent parks (Bieszczady and Uzhanskyi) are scarce, despite a short aerial distance of 26 km between headquarters. Prior to 2007, visiting the partner park required driving a distance of 348 km and passing through crowded border crossings at the state borders of three countries and being subjected to numerous police and border guard control points, amounting to a full day trip in each direction. Since 2007, the Schengen visa regime has been a serious obstacle for participation of the Ukrainian partners in joint meetings.

The immediate effect of the expected international designation by the UNESCO-MAB Programme was development of the protected area network in the region. Initially, the three protected areas initiating cooperation in this frontier region covered together only 58,853 ha in 1991. The shared vision of establishing a transboundary protected area of international significance was the incentive for nature conservation authorities of the three countries to extend the existing protected areas, raise their protective legal status, and designate new ones in the region. Since May 1990, when the proposal to establish a trilateral biosphere reserve was presented at the UNESCO-MAB meeting in Kiev, the size of the areas under legal protection of the current ECBR was increased from 15,710 ha to 113,847 ha on the Polish side, and from 2,542 ha to 58,587 ha on the Ukrainian side. Nowadays, Uzhanskyi National Nature Park, constituting the south-eastern region of the ECBR, is the fourth largest among fifteen large-scale protected areas in the Ukrainian Carpathians. In 2010, the ECBR encompasses an area of 213,212 ha, which is almost four times larger than the area protected in 1991, and is the largest European mountain biosphere reserve outside the Russian Federation.

Annual scientific conferences held in Poland since 1992 facilitate the exchange of information, sharing results of scientific research carried out in all three national parts of the ECBR, and disseminating experience in developing park management plans with the use of GIS.

The designation of the world's first trilateral biosphere reserve captured the attention of international donors. The ECBR is the only European transboundary protected area having a special financial tool to support transboundary cooperation—a non-profit regional environmental trust fund, established pursuant to the trilateral agreement between Poland, the Slovak Republic and Ukraine, emphasizing the shared responsibility of the three involved countries for the protection of natural resources in this region.

The joint Foundation for the Eastern Carpathian Biodiversity Conservation was registered in Switzerland in 1995 as a 'fourth and neutral country' with the statutory objective 'to encourage, organize, conduct and promote activities serving to protect the overall biodiversity of the Eastern Carpathians Mountains zone' (ECBC 1994). The original endowment capital of US\$600,000 for the Foundation was donated by the World Bank Global Environment Facility and the MacArthur Foundation as 'seed money' to encourage support from other potential donors, including the three involved Governments.

The ECBC Foundation was a unique joint funding mechanism and the only source of steady support for transboundary cooperation in the ECR, which also generated additional matching funds from other sources. Between 1996 and 2006, the ECBC Foundation supported 32 small projects implemented in the ECR by local NGOs, protected area authorities and community authorities. Furthermore, in order to initiate and support transboundary cooperation between the three involved countries, the Foundation implemented ten common trilateral projects.

Projects supported in the ECR by the ECBC Foundation focused on:

- biodiversity conservation, establishing new protected areas, protected area management;
- historical and cultural heritage conservation;
- research, resource inventories, mapping and functional zoning, establishing digital databases;
- technical capacity building for protected areas;
- workshops, training and study tours for protected area managers, staff and local inhabitants;
- environmental education and awareness raising, public relations and information;
- sustainable tourism development, tourist trails and infrastructure.

The main beneficiary country was Ukraine, which received more than 44% of the total support generated by the ECBC Foundation for this transboundary region. The financial assistance by the Foundation for carrying out biodiversity inventories, area mapping and developing functional zoning was crucial for including the Ukrainian side into the trilateral ECR in 1998, and later for building the capacity of the Ukrainian protected areas to cooperate with the Polish and Slovak counterparts. The Foundation financed the purchase of modern office equipment and software for park administrations and tools (e.g. GPS units) for field services, facilitated experience exchange with neighbouring national and landscape parks across the border, supported sustainable tourism development

by financing the development of visitor infrastructure and trails, supported environmental community campaigns and facilitated the establishment of working relations with foreign tour-operators, which provided sound economic incentives for cooperation between local communities and park administrations.

Equally important was the role of the ECBC Foundation, as the only legally designated body, in developing the common vision for the Eastern Carpathians, and promoting and coordinating transboundary cooperation. During the regional consultation workshop held in September 2003, the ECBC Foundation gathered managers and experts from all protected areas constituting the ECR for the first time, with the objective of identifying the most urgent common priorities for cooperation. In 2004, the Foundation initiated and supported the work of the first three common thematic expert working groups, cumulating knowledge and skills of partners from the three involved countries, entrusted with joint elaboration and implementation of the common 'Transboundary Action Plans' and detailed proposals for joint conservation projects on wildlife, plants and forests.

The ECBC Foundation established a joint website, developed joint publications, maps and brochures in all national languages and unifying the design with the objective of creating a common identity. In order to provide relevant tools for common management planning of the area, the ECBC Foundation produced the first ever common digital maps of the entire ECR.

However, the ECBC Foundation established 'in the fourth neutral country' as a Swiss legal entity was neither eligible for the European funding sources nor for the EEA/Norway grants or funds provided through the Swiss Contribution for EU Enlargement. For this reason, its Board decided in 2006 to establish a successor foundation in Poland. The legal procedures towards closing the Swiss-based foundation and transferring its capital to its successor foundation in Poland have not yet been completed.

Lessons learnt and future prospects

The most important lesson learnt in the ECR is that the real 'key to success' and indispensable assets for any cooperation, regardless of the subject, are the people involved in the common activities and their enthusiasm for doing things together. Even a formal high-level international agreement will not initiate successful transboundary cooperation alone. Little will happen if there is no spirit of cooperation among the partners, no practical incentives to collaborate or understanding of potential benefits, and no intention to understand and respect each partner's different operational conditions



or culture. Successful transboundary cooperation on biological diversity issues also requires adopting a 'new mental attitude' by thinking of the area as a single coherent natural transboundary eco-region.

The first step necessary in developing transboundary cooperation is to identify common priorities and decide on the most urgent and feasible joint actions, in consultation with a wide range of stakeholders from each side of the border.

Another conclusion would be that transboundary cooperation cannot be developed without visionary leadership, and a mutually agreed framework for the coordination of joint efforts. Such a 'governing structure' can be established on the basis of formal agreements. The trilateral Protocol signed by the Ministers in 1991 designated the common ECBR Coordinative Council. However, it has never been budgeted to perform its extensive functions and therefore never became operational. The Coordinative Council met only three times between late 1991 and spring 1994. Its advisory body, the International ECBR Scientific Council has never met, and the idea had been abandoned. Confronted with the absence of the above frameworks, the common ECBC Foundation took over the function of the coordination structure for transboundary activities in 1995, and played the role of a forum in which ECBR stakeholders from the three countries could meet and discuss their management issues. The report by UNESCO clearly stated that *'the Foundation remains the only legally established body for trilateral consultations and cooperation'* (Jardin et al. 2003). This example from the ECBR proves that any collective multinational body or structure tasked with coordination of transboundary cooperation must be assigned clearly defined responsibilities and allocated a relevant operational budget to perform its tasks.

For obvious reasons, transboundary cooperation cannot be developed without funding. However, cooperation developed solely on a 'project basis' cannot be feasible in the long term, as the project deadline may then become the 'deadline for cooperation'. Establishing a common environmental trust fund like the ECBC Foundation is one of the options (Niewiadomski 2006b). According to the report of the World Bank expert mission carried out in 1998, *'the trilateral nature of this fund, as a mechanism to support a parallel trilateral conservation agreement with its own coordinating committee, is unique in fostering technical collaboration'* (Lusigi and Norris 1998). However, such funds have to be well equipped from the very beginning, otherwise they will never become fully operational. The World Bank report also stated that *'the main lesson to be learned is that a trust fund needs a certain threshold level of capital (in this case, probably an endowment of 3 to 5 million dollars) to achieve critical mass'* (Lusigi and Norris 1998).

It should be noted that all three countries involved are parties to the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kiev) (UNEP 2003) and recently signed its first thematic Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity (Bucharest, 2008). Nevertheless, these international agreements have had no direct effect on transboundary cooperation in the ECBR thus far.

8. 8000 Years of Crossing Borders — Neusiedler See / Fertő-Tó

Katharina Diehl¹ and Alois Lang²

Geography of the area

The Fertő-Neusiedler See³ ecosystem is the westernmost in a string of saline steppe-lakes across Eurasia. The shallow steppe lake, less than 2 m deep, is the largest saline water body in Europe, covering about 315 km². It is about 13,000 years old and at a late stage of succession (Herzig and Dokulil 2001). Hundreds of years of continuous land use

years ago. Archaeological findings prove that the successive civilizations had cultural and trading connections via trade routes crossing the south-western region of the lake, such as the Amber Route, which connected the Adriatic to the Baltic Sea. Grazing and cattle herding can be traced back to ancient times. Vineyards were already established in Celtic and Roman times. From the 1950s to the 1970s, the area under vineyards reached its greatest extent and, particularly in the Seewinkel area, extended to parts of the landscape traditionally dominated by large pastures



© Neusiedler See National Park Authority

have formed a landscape that is exceptionally diverse in its appearance. This diversity is caused by the gradual differences in altitude and by the numerous traditional forms of land use. Today, a cross-border national park covers a wetland area of approximately 300 km² shared by Hungary and Austria. It is located in the westernmost part of the Carpathian Basin, east of the Austrian Alps. The landscape setting of the lake, the bird populations, and the existence of so many biotope types in a relatively small area are the most important natural values of the site.

Findings from the Stone and Bronze Ages inform us that the region surrounding Lake Neusiedl was inhabited 8,000

and both dry and wet meadows. Reed cutting is the most recent form of traditional land use, after extensive reed beds started spreading in the 16th century.

The region has always been a typical border region, due to its geographical and geological setting as a transition zone between the Carpathian Plains and the alpine mountains. Because of the various climatic effects — continental, sub-Mediterranean and alpine — it is also a meeting point of floral and faunal borders. Also the ethnic composition of the human population shows high diversity, consisting of German, Slavic (mainly Croat), and Finno-Ugrian- Altaic (Hungarian) ethnic influences.

The stability of landownership greatly contributed to the continuity of land-use patterns. Even the socio-political

¹ Landscape Ecologist, Leibniz Centre for Agricultural Landscape Research, Germany.
² Public Relations and Ecotourism, Neusiedler See National Park, Austria.
³ German: Neusiedler See, Hungarian: Fertő-Tó, English: Lake Neusiedl.

upheavals after 1918 and 1945, when the nobility was in part succeeded by the public sector, have not really changed this pattern. This has maintained the traditional socio-economic structures and thus the balance between land use and the natural environment.

True isolation started with the establishment of the Iron Curtain after World War II. During the Hungarian revolution in 1956, many Hungarians used the reed beds and the shallow lake to try a perilous escape to the west, before the border area was heavily secured for many years to come. But it was on the south-western part of the lake shore, between Fertőrákos (Kroisbach) and St. Margarethen, that hundreds of participants from the East German GDR spontaneously tore down the barbed wire and reopened the border during a Pan-European Picnic in August 1989. The population on the Austrian side had supported change and welcomed hundreds of people trespassing across the border (Natur & Land 1993).

Milestones of historical development

Transboundary cooperation in nature conservation and water management started in the 1950s (Fersch and Lang 2006). The necessity for cooperation emerged due to the natural dynamics of the steppe lake. Transboundary water management turned out to be crucial for regional development in terms of flood prevention, agriculture, settlement development, and tourism (Fersch and Lang 2006). A cross-border management regime was implemented in the region between Austria and Hungary in 1955, with regular bilateral meetings on the management of transboundary waters such as Lake Neusiedl and some smaller rivers. These meetings led to the joint signature of the Treaty on the Regulation of Water Management in the Border Area and the establishment of a bilateral water management commission for Lake Neusiedl. Several years later, cooperation in nature conservation was established at the scientific level (Natur & Land 1993).

The first civil society attempt at cross-border cooperation happened in the late 1970s, when the Austrian Nature Conservation Association (OeNB) built up contacts with the Hungarian regional authority for nature conservation. One result of this exchange of ideas was the establishment of the protected landscape area on the Hungarian side in December 1977, which touched upon the protected landscape area on the Austrian side of the border already proclaimed in 1965.

In 1987, while Hungary was still under the socialist system, both countries decided to jointly contend to host EXPO 1995 in the cities of Vienna and Budapest. In the planning phase of EXPO, the idea of a national park covering an

area in two states with different political systems was considered an attractive part of the concept. Although EXPO itself was never realized, the idea of a transboundary park caught on and, in the end, it was one of the very few parts of the concept that survived and became a reality. When Hungary removed its border restrictions with Austria on 23 August 1989, the time was ripe for realizing the idea of the transboundary national park.

The planning process of the national park was started with a bilateral commission consisting of experts from both sides and involving all stakeholders at the local level. In Austria, this meant an integration of more than a thousand families in seven villages, who were and still are landowners of about 100 km² of the national park area. An evaluation of all proposed sites was undertaken on the basis of the current agricultural value of the land. These negotiations lasted almost four years, and were constructively supported by the agricultural chamber. In 1992, contracts regulating compensation payments for landowners were finally signed (Natur & Land 1993).

In Hungary, the first phase of the national park was established on State land pursuant to State law in 1991. To demonstrate the transboundary character of this protected wetland area, a joint opening ceremony was held in April 1994. The Prime Ministers of Hungary and Austria, Boross and Vranitzky, stated their will to intensify cooperation in nature conservation (Natur & Land 1993). The event took place on the state border near the common core zone of the new national park.

On the Austrian side of the border, the entire site has been a protected nature and landscape area since 1965, and has been classified as a Wetland Reserve under the Ramsar Convention since 1983. UNESCO proclaimed a Biosphere Reserve covering the basin of the lake in 1977. The Hungarian part of the lake and its surrounding wetlands has been a protected landscape area since 1977 and a Ramsar Site and a UNESCO Biosphere Reserve since 1989 (Natur & Land 1993). Since the 1970s, international nature conservation designations, such as Biosphere Reserve and Ramsar Site, on both sides of Lake Neusiedl/Fertő-Tó, led to the need for homogenization of spatial plans in the area, based on the exchange of scientific data.

The 1992 Austrian National Park Act includes the establishment of a joint Austro-Hungarian National Park Commission in order to harmonize development of the parks. This Commission existed in the planning phase of the national park since 1988 and, once it had achieved its function in the establishment of the national park, it could have been disbanded. However, both sides agreed to continue close cooperation and to keep the Commission

for discussing essential steps and future synergies. The Commission operates under the National Park Act in Austria and the National Park's Directive of the Ministry of Environment in Hungary. It is led by both national park directors and includes local representatives from both countries (Fersch and Lang 2006). In December 2001, the Fertő-Tó/Neusiedler See area was declared a UNESCO World Heritage Site.

Hungary joined the European Union in 2004. The new era brought the nomination of NATURA 2000 sites, which covers the entire national park. Having another parallel designation for nature conservation, the threats to nature caused by unsustainable use or short term investment plans have been decreased. With Hungary's entrance to the Schengen Treaty in December 2007, border controls ended and checkpoints were closed down. This opened a wide range of new opportunities in day-to-day cooperation (e.g. for educational programmes, non-motorized traffic infrastructure).

Benefits and challenges

Intensification of transboundary cooperation in the 1980s mitigated the risks of unsustainable development in tourism, settlement extension, agriculture, and traffic infrastructure. Since then, remarkable progress has been made in environmental protection on the Hungarian side (e.g. in wastewater treatment), based largely on the experiences of the Austrian side.

The exclusion of core areas from economic use was carried out effectively on both sides of the border, with each national park following its own administrative process. On the Hungarian side, ecosystem restoration figured prominently among the management tasks (Kohler 2004). Keeping conservation zones intact is more challenging, as they are largely made up of ancient cultural landscapes (e.g. around the soda lakes), which means that they have to be maintained through the continuation of traditional forms of land use. The revival of these methods is a major task for park authorities. On the Hungarian side, national park staff is responsible for tending the land according to conservation management objectives. The national park on the Austrian side lets out land for use on a contractual basis, but strictly enforces that such land use is beneficial for conservation.

The interplay between national interests and transboundary governance has not created difficulties, since both countries follow their own administration and legal framework for the implementation of the aims of the national park. Instead of elaborating a joint management plan, it was agreed that the national park staff should have

close permanent cooperation in all sectors of common interest, such as management of the cultural landscape in the conservation zone, visitor management, nature education, and public relations, as well as data exchange in research studies, inventorying and monitoring.

The past decade of cooperation has shown that different legal frameworks can be overcome if both sides have a clear will for constructive teamwork in daily working life. Though the methods to be implemented for preserving or restoring valuable ecosystems were the same in both parts of the national park, the logistical, legal, and structural background were and still are very different. The situation today is one of successful collaboration between the two park directorates and also between most of the local communities. The very first EUROPARC certificate for transboundary protected area and successful transboundary cooperation in nature conservation was handed over to both directors in 2003, for the efforts undertaken since the foundation of the national park (Natur & Land 1993). The certificate was renewed in September 2010 following an evaluation.

Ongoing information exchange at the EUREGIO level (European cross-border regions with economic or societal focus), among national park authorities and the World Heritage Site designation, preclude problematic developments that could threaten natural assets on one side of the border. Examples of this include information through the EUREGIO Working Group on a planned mining project in Hungary, which led to protests on the Austrian side in 2003; the demands for a cross-border cycle trail close to the national park's nature zone, which was jointly rejected by both Directorates in 2004; and plans for a waste treatment plant in the southern part of the region on the Austrian side in 2006, which caused protests on both sides of the border.

The planning of the transboundary World Heritage Site built on the previously established relationships and cooperation. Working groups including all relevant stakeholders were established to develop the joint management plan. A well moderated series of conferences communicated the agreed objectives and results to the general public. Currently, the stakeholders in the World Heritage area are organized separately in each country within World Heritage associations. As of 2010, Fertő-Tó/Neusiedler See is one of only 15 transboundary World Heritage Sites inscribed on the global World Heritage List for its outstanding natural values⁴.

The mutual support in media work and public relations on both sides of the border must not be underestimated

⁴ Although this is a cultural landscape, the World Heritage property has strong natural values and thus was evaluated by IUCN.

in its role in facilitating transboundary cooperation. In the case of the Neusiedler See, interest in transboundary issues and media relations was facilitated by the foundation of an EUREGIO cooperation of the Austrian district of Burgenland and the Hungarian counties of Győr-Moson-Sopron, Vas, and Zala in 1998. Since then, the regional media has intensified its cross border cooperation, and expert working groups from both sides meet regularly within the joint EUREGIO. This has resulted in greater interest by the media in national park related topics and transboundary cooperation projects (Fersch and Lang 2006).

Both partners are proactive in the matter of fundraising for transboundary projects, such as the European Union co-funded project on traffic development in sensitive areas, which was driven by the respective ministries in Vienna and Budapest. One output of this project was a solar boat for a maximum of 20 passengers that serves as an excursion boat on the lake for educational and public relations purposes.

Nature conservation proves to be a good mechanism for initiating and intensifying transboundary cooperation. Compared with other sectors, there is almost no risk of misunderstanding, and the key actors are not suspected of being focused on personal economic advantages. The national parks have made it their task to foster a new transboundary regional identity, based on natural assets, which can only be achieved if all sectors of society are involved, at least in part, in the process at the local level. In this context, the language barrier is still underestimated. Within a bilateral project, the national park's newspaper *Geschnatter* received a Hungarian counterpart called *Kocsagtoll* (heron's feather) with 60,000 copies in winter 2010.

Today, knowledge, experience, and even infrastructure are shared wherever possible. Elements of visitor and educational programmes are jointly developed on and for both sides. In 2010, a bilingual visitor programme was printed for the first time, offering field trips both in German on the Hungarian side, and in Hungarian on the Austrian side. The mutual support during international conferences, press trips, or study trips hosted by one of the national park visitor centres (Illmitz in Austria and Fertőújlak in Hungary) clearly indicates that these two national parks are part of one and the same wetland area.

Lessons learnt and future prospects

The procedure of establishing structures on both sides of the border that today are widely known as best practice in transboundary nature conservation cannot be viewed

only as an administrative process. Years of development and negotiations were involved in creating the park as it exists today.

Private initiatives and the efforts of nongovernmental organizations laid the foundations for the national park, though not only in the political sense. It can be said that without the efforts of many people who secured areas by keeping them from the intensification of land use, the national park territory would not be as extensive and valuable as it is today. The area of the national park today includes many of the areas that were formerly leased by WWF Austria or protected by private funds.

International organizations were important especially in the administrative process of establishing the national park with respect to their influence on the criteria for protected area categories, which pressured the authorities to take zonation and management models as a basis for implementation.

In Austria, the role of public participation at the local level is naturally very high, since the park is established on private land. This assures a strong interest in the happenings in the national park and the activities of its authority, and triggers discussions and participative involvement throughout the surrounding area.

In Hungary, almost no human use was tolerated within the militarized border zone along the lakeshore. The rest of the land was, and for the largest part still is, State owned. Only those local families who remained landowners until 1948 were in a position to reclaim their former property (Kirchberger and Karpati 2006).

The importance of independent and rigorous environmental impact assessment and scientific studies for dispute resolution has been found to be very high, especially at the management level. For the public discussion of sensitive issues, scientific studies have to be carefully and soundly 'translated' in order to avoid misunderstandings.

It can be said that this transboundary national park was planned and established at ground level. The support of key stakeholders for the national park at the local level led to visible and stable cooperation of the local politicians on both sides. This cooperation on the ground has turned out to be a precondition for successful work in transboundary nature conservation.

9. Good Practices in Sustainable Transboundary Cooperation — The Krkonoše/Karkonosze Biosphere Reserve

Hana Petrikova¹

Geography of the area

The Krkonoše/Karkonosze² Mountains belong to the Sudetes, a chain of mountains shared by Czech Republic, Poland and Germany. It is the highest mountain range in the Czech Republic (400–1,602 m) and creates a significant frontier in central Europe, extending 40 km along the border of north-eastern Czech Republic and south-western

alpine ecosystems whose counterparts are found in the Alps and north and north-west Scandinavia (Jeník 2000). The key values are the mountain ecosystems: unique arcto-alpine tundra, sub-arctic peat bogs, sub-alpine and alpine ecosystems, and flower-rich mountain meadows. The landscape has been remodelled by human settlements and centuries of land use. There are numerous mountain meadows, a dense network of chalets, and significant winter sports and tourism infrastructure. Large areas of spruce forests were heavily impacted by air pollution that



© Hana Petrikova

Poland. The highest peak is Sněžka³ with an elevation of 1,602 m. The Elbe (Czech: Labe) River springs on the Czech side. The entire massif covers an area of 63,900 ha, of which 45,400 ha lies on the Czech side and 18,500 ha on the Polish side. On both sides of the border, large areas of the mountains are designated as national parks: Krkonoše National Park in the Czech Republic (54,969 ha) and Karkonosze National Park in Poland (16,841 ha, including protective zones). The entire territory represents a Special Protection Area for birds and a Special Area of Conservation for other Natura 2000 species and habitats.

The area is known for its high biodiversity in four altitudinal vegetation belts, from sub-montane to alpine.

The mountains constitute an ecological island of arctic and

¹ Manager, Man and Krkonoše Association, Czech Republic.

² Czech: Krkonoše; Polish: Karkonosze.

³ Polish: Śnieżka.

peaked in the first half of the 1980s on both sides of the mountains.

The Krkonoše Mts. are a popular tourism destination for hikers and skiers with 6 to 8 million visitors per year on the Czech side and 2.5 to 3 million on the Polish side. The total length of marked tourist trails exceeds 700 km.⁴

The mountains have been under different cultural influences since the 14th century. Together with Czech inhabitants, a significant German population was settled here for generations. After World War II, the German population was expelled and the Krkonoše were resettled by people from other regions. The result was a break of the ethno-cultural continuity, which was accompanied by a loss of some mountain management practices and

⁴ www.krnapp.cz

Czech Republic	Poland
The official governmental coordinators, represented in the National MAB Committees are:	
Krkonoše National Park Administration (since 1963) under the Ministry of Environment	Karkonosze National Park Administration (since 1959) under the Ministry of Environment
The Czech-Polish Council for the BR Krkonoše/Karkonosze based on the Agreement on Cooperation in the Krkonoše/Karkonosze bilateral Biosphere Reserve; a non-legal entity, consisting symmetrically of the directors of the two national parks, representatives of the regional authorities, local communities, business, science and NGOs	
The Czech-Polish Office for the BR Krkonoše/Karkonosze - a supportive organization to the Council. It serves as a neutral platform to initiate and facilitate inter-sectoral and inter-disciplinary communication, to organize joint meetings and to propose, prepare and coordinate joint projects. It operates within these two organizations: Man and Krkonoše, Czech NGO The Karkonosze Foundation, Polish NGO	

Table 9.1. The institutional framework for the Krkonoše/Karkonosze Biosphere Reserve
Source: Petrikova (2003)

traditional landscape features. The number of permanent inhabitants declined after the war.

In recent decades, there has been increasing pressure on the utilization of the mountain nature areas. The Krkonoše are the most important centre of winter and summer recreation, and account for a high share of the overall tourism industry in the Czech Republic. The major disputable issue is the development of winter sports infrastructure, as services for winter sports, namely the ski industry, provide significant employment opportunities for the people living in the mountain communities in Krkonoše. There are 15 ski resorts on the Czech and Polish sides of Krkonoše, with 150 ski pistes of a total length 130 km. Other industries such as farming and traditional crafts are of marginal interest.

Under Communism, a strict regime to safeguard State borders limited cross-border contacts and cooperation. Still, Sněžka was often a secret meeting place of the then Polish-Czechoslovak branch of the Polish Solidarity.⁵ Activists participating at the meetings called for a joint programme to preserve the mountains and transborder partnership developed between Krkonoše National Park (CZ) and Karkonosze National Park (PL). Despite some difficulties, joint conferences and meetings of the Scientific Councils of the two parks and their staff took place almost annually from 1964 to 1989 (Petrikova 1990). Since the end of the Communist regime in 1989, new opportunities for more intensive cooperation in scientific research and socio-economic relations have emerged.

Milestones of historical development

The Krkonoše Mts., protected as Karkonosze National Park (PL)⁶ in 1959, and Krkonoše National Park (CZ)⁷, established

in 1963, were declared the Krkonoše/Karkonosze Biosphere Reserve by UNESCO in 1992. An institutional framework for the Transboundary Biosphere Reserve (TBR) framework was established in 1996, when the Agreement on Cooperation in the Krkonoše/Karkonosze Bilateral Biosphere Reserve was signed by representatives (one from each side) of different sectors active in the Krkonoše region: directors of the two national parks, representatives of regional authorities, local communities, business, science and NGOs. In 2004, the Krkonoše and Karkonosze National Parks signed the Agreement on Cooperation, followed by the certification of a transboundary park by the EUROPARC 'Following Nature's Design' programme.⁸ A memorandum on friendship, mutual understanding and cooperation was ratified in Krkonoše in 2006 between the Czech and Polish associations of Krkonoše communities. Other cooperation includes information centres and museums, schools, mountain rescue services, health service, police, and fire departments.

The bilateral Biosphere Reserve (Table 9.1) was established as a result of joint efforts of the two national parks, aimed primarily at:

- more coherent and effective protection of biodiversity and ecosystems;
- facing emerging environmental challenges through different expertise in problem solving (e.g. the case of air pollution damage to forests);
- sharing and exchanging enormous amounts of scientific data;
- promoting principles of sustainable utilization of natural resources by the local population;
- making the area more attractive for both scientists and visitors by creating cross-border trails and a common tourist information system.

5 A joint dissident movement against the totalitarian regime.

6 www.kpnmab.pl

7 www.krnap.cz

8 www.europarc.org/what-we-do/transboundary-parks/certified-parks/

Benefits and challenges

The Czech-Polish Agreement on Cooperation signed in 1996 has initiated more intensive and extensive transborder cooperation among sectors. Besides traditional cooperation in scientific research, various cross-border and inter-sectoral activities have been realized to reconcile nature conservation with socio-economic development in the area. These have included Czech-Polish multi-sectoral forums addressing common issues, e.g. 'The possibilities and limits of further development in Krkonoše—ecological and socio-economic factors', 'The vision of sustainable development in Krkonoše', 'Indicators of sustainable development', 'Territorial planning—exchange of experience', etc. The main efforts have been directed towards supporting communication and mutual understanding among nature conservation and research workers on the one hand, and representatives of different institutions and sectors such as local authorities, tourism services, farming, NGOs and the local communities influencing the future development of the Krkonoše Mts. on the other. The exchange of information and opinions between communities across borders, where people think similarly about the relation between nature conservation and economic development, has been particularly successful and inspiring (Petrikova and Raj 2006).

The transboundary Biosphere Reserve has played a major role in the field of research, monitoring, education and training. Joint scientific activities in the Krkonoše include the unification of GIS databases, publication of the Czech-Polish Atlas of Breeding Birds (Flousek and Gramsz 1999), and the list of extinct plants and Red List of vascular plants (Štursa et al. 2009) describing the present status of vascular plants and the main reasons for their decline on the both sides of the Krkonoše Mts. A joint GIS has been under development by the two national parks since 1999, as an important tool for integrated management and coordination of activities in the area. The main goal of the project is to regard the Czech and Polish Krkonoše as an undivided area. All the consequent integrated layers will be accessible online on a new MapServer.⁹

One of the unique features of the TBR concept is the interdisciplinary approach and the socio-economic dimension. At present, there is a relatively large amount of quality data on the nature of Krkonoše and on significant anthropogenic factors influencing the area, such as the impact of air pollution, while there is a lack of data and knowledge on socio-economic issues. The knowledge of the carrying capacity limits of the area or visitor flows are of key importance for making major decisions. Thus the parks will initiate socio-economic research and monitoring

projects that will also be beneficial for nature conservation. The projects will make use of a set of indicators for monitoring and evaluation of long-term environmental, social and economic changes in the national parks and the biosphere reserve.

The Krkonoše Mts. have been a stage for ecological disputes for many years. Communities, the State administration and business sector have disputed what is most beneficial for the region, trying to find convincing arguments that often support personal interests. In some cases these disputes have almost become a ritual. Yet, it is obvious that the conflicting parties are not "ecological fundamentalists" or "habitual infringers of nature". In fact, they are all people with a long-term common interest—investors, conservationists and community representatives—who all wish and need people to be satisfied with the quality of life and well preserved nature (Flousek and Plamínek, 2007).

What has been missing is a framework in the form of a socio-economic-environmental document that would serve as a guideline for operational decision-making in the public and State sectors, and which would be respected by locals, experts, and developers.

In 2008, the Advisory Board of the Czech national park, the Association of Krkonoše Communities and local NGOs established a multi-sectoral working group to prepare a document that set up a vision for the Krkonoše Mts. The group was also joined by Polish representatives. The working group intended to develop a document that would be acceptable for the majority of inhabitants, visitors of the Krkonoše, and the administrations of the Czech and Polish national parks. A socio-economic-environmental document was drafted, resting on the pillars of sustainable development and based on feedback from a widely distributed questionnaire, meetings, comments of the draft texts, etc. The working version entitled 'The Vision – Krkonoše 2050 – A Friendship of the People and Mountains' has recently been submitted for ratification to communities and other main stakeholders in the form of a memorandum. The 'Vision' will not be a legally binding document, though its acceptance and long-term adherence to its principles will be considered a moral engagement.

A shift in relations between the national parks and the communities can be noticed. The communities feel that the parks have backed down on their dogmatic requirements, and the mutual animosity has disappeared. This is a result of joint meetings, mainly the meetings of the national park boards in which mountain communities are represented. Together they have identified areas of non-conflicting interest and delimited borders more clearly. New zoning

⁹ mapserv.krnab.cz/mapserv/php/maps.php and www.kpnmab.pl/pl/gis,105

is under preparation that should contribute to better understanding and cooperation among the national park administrations, communities and visitors.

Lessons learnt and future prospects

Continuity and quality of activities and a diverse communication platform of the once established TBR are crucial for successful cooperation. This requires ensuring a relevant permanent structure, e.g. a joint and permanent coordination secretariat, well-defined roles and responsibilities, appropriate funding and time for implementation. The coordinating body has to be able to deal with and overcome the fact that the leaders and representatives of the different institutions are often changing and new partner relationships are to be established from time to time.

Despite the fact that the Czech-Polish Council for the Krkonoše/Karkonosze Biosphere Reserve has strived to maintain integrated transborder communication and cooperation across sectors since the beginning, it seems that there has always been a tendency and preference to work only with partners of the same sector that share a similar professional language. There are a number of new agreements and projects

between individual communities, schools, parks, museums, tourist organizations, information centres, etc. However, the bilateral biosphere reserve is designed to bring different stakeholders together to communicate, discuss and try to develop a common vision. Multi-sectoral interconnection and forums with various stakeholders demand much more effort, organization and preparation.

It has turned out that a common management plan is not feasible for the bilateral BR. The administrators and managers of the Czech and Polish protected areas, mainly the two national parks, are obliged to elaborate their own management plans according to different laws, which are controlled by the respective higher authorities (ministries). Therefore, we should speak rather about a common management policy and common measures, joint activities, projects, inventories, research, monitoring and education, which are more appropriate frameworks for cooperation in the TBR.

There is a common concern that the results of scientific research are often not incorporated into management decisions. Apart from popularization of research, greater emphasis should be given to the interdisciplinary approach and to social science.



Photo courtesy of Jan Groh

10. Goričko-Raab-Őrség — Developing with Nature in a Trilateral Park

Stanka Dešnik¹ and Gregor Domanjko²

Geography of the area

The trilateral Goričko-Raab-Őrség Nature Park lies in Central Europe along the former Iron Curtain, at the border of Slovenia, Austria and Hungary. The idea of establishing the park emerged in the early 1990s at one of several regional workshops aimed at developing a vision for the area after the fall of the Iron Curtain in 1989. Goričko

Carboniferous slate and tuff (volcanic ash) at Grad caused by volcanic activity 2–3 million years ago in Austria's Styria region. The soft, sandy ground has been washed off by rainfall over thousands of years, and this water erosion created the geomorphologically harmonious landscape with many small hills.

Due to the specific geomorphology, the network of small rivers and brooks, acidic and washed soil, low rainfall (600–800 mm per year) and high erosion caused by



© K. Malačič

Nature Park³ (Slovenia) is protected under the Slovenian Act on Nature Protection, and has been assigned the IUCN protected area management category V. Őrség National Park (IUCN category II) in Hungary is protected under Hungarian law, while Raab Nature Park in Austria is protected under Burgenland law and has no assigned IUCN category. The entire trilateral nature park covers an area of 105,200 hectares.

Since Slovenia and Hungary joined the European Union in 2004, more than 96% of Goričko Nature Park and the whole of Őrség National Park became part of Natura 2000 (Table 10.1), while Raab Nature Park is not designated as a Natura 2000 site. However, the Natura 2000 site in Goričko extends over the border into Austria and is connected to the South Styria Natura 2000 site, thereby protecting the hilly landscape which is home to the threatened European roller (*Coracias garullus*).

Geographically, the trilateral park includes low hilly landscapes on the western side of the Pannonian flat between the Raba, Krka and Ledava Rivers. In the trilateral park region, the highest hills are on the west side, becoming lower and flatter towards the east. The soil is mostly sandy, more varied towards the western borders, where rock of different geological age are also found, including fossil seashells as relicts of the Pannonian Sea, Permian-

storms, agriculture has never been highly profitable in this region. The population developed semi-subsistence farming which was enough to survive on until the Industrial Age. All three border regions faced virtually the same development problems, such as an elderly and undereducated population, mostly small farms without prospects in farming, abandoned fields, no industry and large infrastructure, long distances from national centres, a depopulated landscape with a high degree of worker migration and a large number of abandoned houses.

Until World War I, the entire region was under the Kingdom of Hungary for more than a millennium. Pursuant to the 1920 Trianon Peace Treaty, new borders were established between Austria, Hungary and the Kingdom of Serbs, Croats and Slovenes. After World War II, the border between Hungary and Slovenia (part of the former Yugoslavia) was protected by barbed wire, with a ploughed strip of 40 m wide on the Hungarian side, mine fields, watchtowers and border guards. After the Hungarian revolution (1956), the border installations with Yugoslavia were partly dismantled, however, crossing the border was still strictly controlled.

The border between Hungary and neutral Austria was initially lightly guarded after 1956. Later, the border was protected by a barbed wire fence with a 60 m wide ploughed strip on the Hungarian side, partly mined until 1965, and a service road along the border with watch towers. A double barbed wire fence with electric alarm

¹ Senior Advisor for Nature Protection, Public Institute of Goričko Nature Park, Slovenia.

² Project Coordinator, Public Institute of Goričko Nature Park, Slovenia.

³ www.park-goricko.org; Also referred to as Goričko Landscape Park.

and a raked area of 8–10 m in between to perceive traces of fugitives stood 2 to 3 km from the borderline. The area between the border and the double fence was called the 'border-belt,' which even nearby inhabitants could enter only after receiving official permission.

The Pan-European Picnic in August 1989 and the opening of the border between Hungary and Austria one month later marked the beginnings of the fall of the Iron Curtain. Since the establishment of the eastern Schengen border in December 2007, the border between Slovenia, Austria and Hungary is now crossed freely.

involving partners from all relevant sectors: municipalities, ministries, research institutions, foundations, schools, universities and NGOs.

Transboundary cooperation was crucial for establishing the trilateral park. There was no previous research into the state of nature in the Goričko area and there was no proposal to proclaim the area as a protected landscape. On the Hungarian side, the proposal of a protected landscape was already made in 1976. Due to the long lasting isolation of the border area, the exceptional natural and landscape values on all three sides were preserved. To further protect

	Goričko Nature Park	Raab Nature Park	Őrség National Park	Total
State	Slovenia	Austria	Hungary	
Established	2003	1998	2002	
Place of Authority	Grad	Jennersdorf	Őriszentpéter	
Employees (2010)	11 regular + 2 project + 1 EU social fund + 7 public service	1.5 regular + 1 project	35 regular + 3 project + 5 short-term	
Area (ha)	46,200	15,000	44,000	105,200
IUCN category	V	none	II	
Natura 2000	96%	none	100%	
Inhabitants	25,000	10,000	16,000	51,000

Table 10.1 Comparison of facts between three parks

Milestones of historical development

The main milestones until the establishment of a trilateral Goričko-Raab-Őrség Nature Park in 2003 were:

- 27 May 1989: the mayors of Körmend (Hungary), Murska Sobota (then Yugoslavia, now Slovenia) and Fürstenfeld (Austria) met at the border triangle between the former Yugoslavia, Hungary and Austria, and laid a border stone representing their agreement on future development in peace;
- 1992: the idea of the trilateral cross-border Raab-Őrség-Goričko Nature Park was born;
- 1995: the AT-HU-SLO Cross-border Cooperation (CBC) programme was signed in Vienna;
- 12 September 1998: Raab Nature Park was established in Austria by virtue of a government regulation;
- 8 March 2002: Hungarian Prime Minister Viktor Orbán declared Őrség National Park;
- 9 October 2003: the Slovenian government declared Goričko Nature Park.

The main partners involved in transboundary cooperation development are the managing authorities of all three parks and their municipalities. During the implementation of past project activities, additional partnerships were built at the local, national and transnational levels,

these values, international cooperation in the exchange of data, and research methods and techniques was needed.

After the establishment of all three parks in 2003, we are still dealing with how to manage the trilateral park as a complete European nature and landscape protected region, as there are different protection regimes in all three sites. Therefore a Memorandum of Understanding describing the tasks of all three parts was developed. The document is written in all three languages and the first version was publicly signed on 21 May 2006 in Windisch-Minihof (Austria) at the celebration of European Parks Day. On 24 May 2009, the renewed Partnership Agreement was signed in Őriszentpéter (Hungary).

Benefits and challenges

The history of establishing the trilateral park is based on transboundary cooperation. One of the main benefits of transboundary cooperation in the region is the possibility of applying for joint cross border cooperation programmes financially supported by the EU. Such cooperation facilitates the development of a common vision for the region that helps to protect nature and landscapes in all three countries in more integrated way. Transboundary cooperation facilitates the exchange of

experiences and ideas between people across borders, both at formal and informal levels, which also increases trust among people. Another important benefit of transboundary cooperation is that young, educated people get the chance to work and stay in the region. However, challenge remains for the future, such as how to develop a common, cross border management plan that can integrate nature and landscape protection goals with sustainable development of the region and the wellbeing of local communities. This is especially important due to the varying status and capacities of the protected areas, and the need to comply with the requirements of Natura 2000 network and other EU policies. Another future challenge for transboundary cooperation relates to joint spatial and urban planning in border municipalities, together with impact assessment and monitoring. This task is necessary, especially at the bordering rivers according to the EU Water Framework Directive.

In order to achieve the above mentioned goals, the following objectives were agreed to in the Memorandum of Understanding between the parks:

- working together on the protection and preservation of natural and cultural values;
- planning and organising common events and tourism activities;
- common design of printed materials, web pages, and joint promotion of the park;
- education in nature and environmental protection, environmental and forests schools;
- maintenance of habitat restoration;
- cooperation with the European Green Belt initiative.⁴

The Memorandum of Understanding identified specific activities:

- representing the park region with common goals at the local, regional and EU level;
- involving the local population and NGOs in active nature protection;
- involving people in tourism development and raising public awareness about regional values;
- preserving and transmitting social and ethnic traditions, exchanging experiences of traditional forms of agriculture, economy and the traditional handicrafts, in collaboration with the local population;
- preserving common landscape values with typical folk architecture and collect documentary material;
- introducing the maintenance of landscape protection in development programmes;
- providing mutual support in the preparation of projects

and submission of project applications to calls for governments and the EU;

- joining the studies of fish populations in cross border rivers;
- joining research and surveying of population of River otter (*Lutra lutra*);
- conducting joint monitoring of potential impacts of the waste incinerator near Monošter/St. Gothard (HU-AT border) if the Austrian government decides on its construction.

Additionally, joint fund raising is envisaged for the implementation of the partnership's goals, in addition to developing a joint management plan and establishing a joint trilateral park authority. Due to the presence of a well preserved cultural landscape and cultural heritage, plans are in place to nominate the site for UNESCO World Heritage status.

Lessons learnt and future prospects

Because of our common history during the Cold War, it was not easy to make contacts with neighbours. Initially, language was a problem, however, these communication barriers have been overcome with training, especially in English. Regular visits, workshops and assistance received from leading partners and experts from other countries facilitated fast progress in language proficiency. This was also important as all calls for preparing CBC projects and applications are required in English.

Through transboundary cooperation and especially cross border projects, it was easier to learn how to communicate and how to run the projects funded with public monies. Through transboundary cooperation, we learnt about our common history on all sides of the border.

Our transboundary and cross border cooperation of almost 20 years is a good foundation for continuing work on additional projects and activities on a small and large scale, in the frame of nature protection and ecosystem stability. Following the common goals, the platform of the trilateral park is important for the implementation of activities written in the Partnership Agreement. We still require more stable financial resources and a more equal number of employees is desirable. Future cooperation based on past experiences in a widely branched partnership network is the best assurance for stable, sustainable, social and economically fair, healthy and nature friendly development.

⁴ www.greenbelteurope.eu

11. Europe's Wild Heart — Responsibility for Europe

Zdenka Křenová¹ and Hans Kiener²

Geography of the area

The Bavarian Forest and Šumava National Parks (BF&ŠNP) are located between Prague (Czech Republic) and Munich (Bavaria, Germany), approximately 180 km from each of these two capitals. A chain of mountains rises along the Czech-Bavarian border in the heart of Europe. More than

species have an important south-western outpost in the middle of the broad-leaved forest that dominates this part of the continent. In an area of more than 90,000 ha, BF&ŠNP today protect a representative example of the Central European highlands and an important part of Europe's natural and cultural heritage. The parks have a fairly long common border, which accents the transboundary issue regarding nature conservation, ecological corridors and connectivity.



© Andreas Ebert

two million hectares of Bavarian and Šumava forests have remained almost entirely unfragmented by roads and are free of larger settlements. BF&ŠNP, located in the centre of this area, with its highest peaks Mt. Rachel (1,453 m) and Plechý (1,379 m), is a densely wooded landscape of great beauty, comprising crystal clear mountain streams, unspoiled marshlands, mires and bog woodlands, and abandoned mountain pastures at higher elevations. This forest, called Silva Gabreta, is unique because of its almost natural condition and size. It is the last remnant of the "Hercynian Forest of the Romans" and is home and refuge for many endangered species of plants and animals. There are many elements of the northern boreal forest, and Capercaillie (*Tetrao urogallus*), Ural owl (*Strix uralensis*), Three-toed woodpecker (*Picoides tridactylus*), and other

The management aims for the national parks have not yet been clarified in all aspects. When the Bavarian Parliament voted unanimously to establish the Bavarian Forest National Park (BFNP) in 1969, the first in Germany, it was thought that this project would probably generate urgently needed income for the local population through the creation of new jobs and the support of tourism in this poor region lining the Iron Curtain. Similar reasoning also stimulated the establishment of Šumava NP (ŠNP) in 1991, immediately after the fall of the Iron Curtain.

Since the establishment of the national parks, tourism in the adjoining rural communities has developed, from its modest beginnings to a supporting pillar of employment and income. According to a recent study (Job et al. 2007), the BFNP is an important component of the regional economy.³ With 760,000 visitors per year, the BFNP is

¹ Assistant Professor, Faculty of Science, University of South Bohemia & former Head of Department of Research and Nature Protection, Šumava National Park, Czech Republic.

² Head of Department of Conservation and Visitor Management, Bavarian Forest National Park, Germany.

³ English summary is available on the internet at: www.nationalpark-bayerischerwald.de/detail/veroeffentlichung/publikationen/d_berichte/doc/en_studie_job_kurz_ba.pdf

the region's most frequented attraction. The share of the tourism held in the BFNP provides the region with an occupation equivalent⁴ to 940 people and an additional 200 full-time jobs in the national park authority. Similar results can be observed also in ŠNP, though hard data have not yet been collected.

Main milestones in developing transboundary cooperation

Plans to protect this large forest landscape date back to the early 20th century, though they were never implemented, due first to the two World Wars and then to the Iron Curtain, which separated the political power blocs and the human and natural environment of Europe for half a century, from 1945 to 1990.

In 1969, the old wishes were at least partly fulfilled with the establishment of the BFNP, then measuring 13,300 ha. In 1991, the Czech Republic set aside the most valuable parts of Šumava Mountain as a national park. The designation of 68,500 ha of ŠNP was an important step towards the establishment of a large cross-border protected area of international significance. By virtue of the decision of the Bavarian Parliament to enlarge the BFNP by an additional 11,000 ha on 1 August 1997, an unique opportunity arose to safeguard a remarkable section of more than 90,000 ha of land as a natural landscape and ecological refuge, which is unrivalled in Central Europe.

Together, the two national parks constitute the nucleus of the largest cross-border protected area network in Central Europe and form the largest terrestrial Natura 2000 site in the respective countries.

The main partners involved in transboundary cooperation in BF&ŠNP are: Ministry of Environment of the Czech Republic, Ministry of Environment and Public Health of the State of Bavaria,⁵ Šumava National Park Authority, and Bavarian Forest National Park Authority.

With great enthusiasm, the two national park authorities established practical, though informal collaboration from the very beginning in 1991. Since 1999, cross-border cooperation has been based on the Memorandum on Cooperation between ŠNP and BFNP, which was signed by the State Ministers responsible for the respective national parks. In the meantime, several supplements were signed, e.g. regarding park management and new cross-border trails. In 2009, both parks agreed on common

management guidelines for a transboundary wilderness area. Both parks have been official partners in several European funded projects (Interreg, Leader, and German-Czech Future Fund).

Benefits and challenges

In order to achieve the common objectives for this integrated area, cross-border cooperation has focused primarily on the following:

First joint information centre

The information centre was built at Bučina, one of the main points of entry to the ŠNP from the BFNP. This was the first joint project. Bilingual displays on the national park concept, the development of protected areas, landscape succession, national park regulations and, above all, visitor opportunities are presented there.

Transboundary public transport system

In 1996, the two national parks were enriched as a holiday area with the introduction of public transport systems. In the Bavarian section, 'hedgehog buses' have been operating since May 1996, linking all the park's important visitor facilities and sites with the surrounding towns and villages. A public transport system was also established in the ŠNP in the same year. The two services use buses that run on low-emission natural gas or bio-gasoline fuels. The timetables of both public transport systems are coordinated and bilingual.

Historical border train station to cross-border information office

Following the ceremonious inauguration of the restored historical border train station in Bayerisch Eisenstein/Alžbětín by the two former State Ministers Miller (Bavaria) and Kužvart (Czech Republic), a cross-border information office was set up, offering bilingual information on both national parks and also the Šumava Protected Landscape Area and the Bavarian Forest Nature Park.

Coordination and training of ranger services

Ranger services are coordinated on both sides of the frontier in regular meetings. In addition to providing professional training for individual rangers, joint courses serve to foster personal acquaintances and understanding of the history and culture of the neighbouring country. In addition, a reference manual with the most important facts and information on both national parks was prepared in the form of a joint bilingual ranger handbook.

⁴ As the majority of tourism jobs are seasonal, the given figure provides calculation in full time / whole year units.

⁵ This Ministry has been involved in transboundary cooperation since 2004. Until then, the responsible authority was the Ministry of Agriculture and Forestry of the State of Bavaria.

Successful reintroduction of the Ural owl

Twenty-five years of experience have shown that efforts to re-introduce the Ural owl were boosted considerably, thanks to the decision to initiate similar projects not only in the ŠNP but also in the nearby forest areas of Austria. This is a basic prerequisite for guaranteeing the development of a sustainable population of this owl species through an international management programme (Müller et al. 2007).

GPS lynx and deer telemetry

The most successful common research project is GPS lynx and deer telemetry. The primary focus in the coming years will be to investigate across borders how the lynx uses its habitat in its current centre of activity in Eastern Bavaria and to determine the role of the species in the mountain forest ecosystem (deer-lynx, predator-prey relationship) on both sides of the border. The aim is also to break new ground in lynx research based on the results of satellite-supported deer telemetry.

Restoration of anthropogenically disturbed habitats

An artificial drainage channel in the area of a valuable peat bog extending across the state border was returned to nature in the core zone of both national parks in summer 2005.

Junior Ranger programmes, international youth camps and Czech-German youth forum

Several times in the past, and most recently in 2010, young people from the national park region were given the opportunity to explore the BF&ŠNP as part of a cross-border camping programme with young people from the partner Saxon Switzerland National Park and the Šumava and Bohemian Switzerland National Parks.

Natura 2000 management planning

BF&ŠNP is part of a uniform natural landscape that has no regard for political boundaries. Measures to protect endangered and rare habitats and species should ideally be designed on a large-scale basis and in this case, in a cross-border fashion. With this in mind, both national park authorities have been successfully working together on a project promoted by the EU (Interreg III A) to establish Natura 2000 management plans that include cross-border coordination. Within the frame of this project, a bilingual brochure entitled *Europas Wildes Herz–Divoké Srdce Evropy (Europe's Wild Heart)* was published in September 2007 (Hußlein and Kiener 2007).

Project "Europe's Wild Heart"

In BF&ŠNP, where the Iron Curtain once used to separate man and nature, wilderness is reawakening. Forests are again growing as in ancient times, complying only with natural forces. Guidelines for uniform management of the united core zone (present project area of 13,060 ha), guided tours into the wilderness area, cross-border monitoring and research projects and the establishment of a training and research centre are being prepared. The project (Meyer et al. 2009) has been jointly presented at several international conferences, most recently at the World Wilderness Congress (WILD9) in Merida, Mexico (December 2009).

It is clear that in the first decade of cooperation (since establishment of ŠNP), there were many spontaneous activities such as bilingual information facilities, student exchanges and ranger service cooperation. After signing of the Memorandum in 1999, significant transboundary cooperation focusing on the main issue of nature conservation began.⁶

After twenty years of transboundary cooperation (Ahokumpu and Šolar 2009), we can assume that there are many positive results indicating the strengths and bringing broad benefits for the transboundary area. These include Natura 2000 sites and their management, understanding of the importance of the cross border perspective of nature protection and research, joint work of rangers, junior ranger programme and environmental education. National park employees, local partners, NGOs, trainees, and volunteers of both countries are involved in many joint activities, including professional projects and various cultural events.

The main weaknesses for cooperation are economic differences in the regions, language barriers, and different policies and laws. Despite the basic assurance for funding, there is a significant difference in finances. Unfortunately, the management strategy of ŠNP is not yet stable and political turbulence and development pressures are a serious threat for ŠNP and for transboundary cooperation.

Everyday transboundary cooperation helps us to get a better understanding of natural patterns and of the human population in our common homeland.

The greatest challenge is to follow nature and open borders in our heads and minds. We believe that with everyday cooperation, we can improve not only our knowledge of language, but also our common understanding and

⁶ Trilingual (English, Czech, German) web pages area available: www.npsumava.cz (German in preparation), www.nationalpark-bayerischer-wald.de; www.wildheartofeurope.eu

reverence – both for natural and human diversities. With this understanding, we can share responsibility for our common heritage.

From a practical point of view, we have to work towards the harmonization of legislative conditions and the unification of management in our common core area. The need for better public understanding of the national parks' mission and wilderness protection requires an improvement in our communication skills.

Lessons learnt and future prospects

Much has been learnt during these twenty years of cooperation, including various lessons from both nature and human symbiosis/communication.

The clear message about forest management was delivered by the Kyrill windstorm in January 2007 (Kiener and Křenová 2009). Different forest management strategies were applied along the borders during recent decades. A programme to combat bark beetles (*Ips typographus*) and cutting infected trees were standard management practices on the Czech side during the time when a non-intervention strategy had been already adopted in the BFNP. A lengthy discussion about appropriate forest management in ŠNP arose after the strong windstorm, when mountain spruce forests were strongly affected and thousands of spruce trees were uprooted. Especially open groves, where active cutting of bark beetle infected trees was applied in previous years, were highly damaged, and the lesson was learnt. The situation in the upper part of the mountains along the Czech-Bavarian border was crucial and cooperation and coordination of management was necessary and successful.

Another experience came only one year later when the Schengen Treaty came into effect, allowing free travel across European borders. In anticipation of the demands of local communities and tourism, the administrations of BF&ŠNP came together to prepare joint management guidelines for Europe's Wild Heart (Křenová and Kiener 2009), the core area of the national parks. In June 2009, this cooperation resulted in a joint system of wilderness trails that was agreed upon and officially marked for publication.

Establishment of the new Silva Gabreta Research and Training Centre is planned in a former military base in Kvilda, a village in the centre of ŠNP. Scientists and students from Czech and German universities and other institutions will inhabit the areas where the soldiers kept the fences of the Iron Curtain just twenty years ago. Young interest and enthusiasm will replace militancy and war-anxiety. Visitors, local people and school children will be warmly welcomed

at this Research and Training Centre to meet scientists and have new experiences with wild nature, wilderness and research projects operating here.

People are following nature and crossing borders (both in the field and in our minds) more and more each year. Our cooperation is still getting closer and stronger. The platform of the Research and Training Centre will provide us all with access to a New Europe, where good things for nature are recognized as good things for people and vice versa.



© IUCN / Tomasz Pezold

12. Thaya River — Connecting Thayatal and Podyjí National Parks

Robert Brunner¹

Geography of the area

Thayatal and Podyjí National Parks are situated approximately 100 km north of Vienna and 150 km south-east of Prague. Austria's Thayatal National Park covers 1,330 ha, of which 1,260 ha are nature zones² and 70 ha are nature zones where management interference

extensive meandering, the bee-line distance⁶ is only 10 km. Podyjí National Park extends adjacent to the river for a length of 45 km between Vranov and Znojmo. On the Austrian side, the town of Hardegg is the only locality in Thayatal National Park. With its 80 inhabitants, the cadastral municipality of Hardegg is also the smallest town in Austria.

Thayatal and Podyjí National Parks are located on a distinctive climate border. Whereas the eastern part is



© Marek Neffe

for the protection of ecosystems is authorized. The Czech Republic's Podyjí National Park covers 6,620 ha, of which 2,220 ha represents zone I (core zone),³ 2,260 ha zone II (conservation zone)⁴ and 1,780 ha zone III (marginal zone).⁵

The Thaya River constitutes the common border between the parks for a length of over 25 km. However, due to

influenced by the dry Pannonian climate, the humid Atlantic climate dominates in the highlands. This is why continental and central European flora and fauna are interspersed in the national parks. The magic of the Thayatal near Hardegg lies in the particularly high diversity of plant species in a small area. The exposure changes constantly along the extremely winding river bends, and geological habitat factors also differ on a small-scale (Roetzel 2005), which is reflected in the flora. In both national parks, 1,288 plant species have been identified to date, while there are 2,950 known varieties of plants in Austria.

The preconditions differed for the foundation of both national parks. Whereas Podyjí National Park was established in 1991 shortly after the fall of the Iron

¹ Director, Thayatal National Park, Austria.

² The nature zone is a non-intervention zone. It is equivalent to the core zone in other legislation.

³ The nature in this zone is left to natural succession and in the interests of nature, all human activity is prohibited.

⁴ The aim of management in this area is to achieve a near-natural condition of forest stands and to maintain botanically unique forest-free localities in the desired condition.

⁵ The marginal zone is the most influenced by human activities and also covers agricultural areas around the Lukov and Čížov villages and the fringes of the forest complex.

⁶ Bee-line distance is the direct line between the two points.

Curtain on land owned by the State, Thayatal National Park (established in 1999) is situated on private land. For this reason, establishment of the Austrian part took more time. Austrian landowners received compensation for the restrictions imposed by the national park law. In the Czech Republic, re-privatization of public land is ongoing.

For more than 40 years, the border between Austria and the former Czechoslovakia formed part of the Iron Curtain. Access to the area between the State border, which still runs along the middle of the Thaya River, and the border infrastructure built 2–3 km inland was prohibited and therefore nature remained untouched for decades. The undisturbed ecosystems in the border area were the best argument for the establishment of the national parks at the Thaya.

Milestones of historical development

The elevation of both parks is the lowest in the middle of the Thaya River. Any management measure on one side can easily affect the other side, so management of the river ecosystem, game regulation and development of infrastructure for visitors demand harmonisation. When Czechoslovakia planned to construct a hydropower plant a few kilometres upstream of Znojmo in 1984, Austrian citizens disagreed and led to a successful abandoning of the plans. Even during times of strict border controls, Austrian environmentalists managed to cooperate with colleagues from the Czech Republic (at that time Czechoslovakia), which represented the first examples of transborder cooperation. In 1988, the Austrian authorities decided to declare the area a nature reserve, which later became part of the Thayatal National Park. Shortly after its establishment, the two States' ministers responsible for environment and the Governor of Lower Austria signed a Declaration on cooperation between the two national parks. Other documents followed, i.e. Agreement on the main principles of national park management and on the exchange of data. The parks established cooperation on river management through the bilateral Austrian-Czech Border Waters Commission.

Today, transborder cooperation is based on a bilateral agreement. The Thayatal National Park Commission was established in 2000 and consists of delegates from both ministries for the environment, members of regional authorities, heads of both National Park Councils, and the park directors. The Commission has elaborated internal rules of procedure and meets regularly, at least once a year or at the request of the members. It deals mainly with measures and projects of transboundary interest. The parks have recognized the value of working together to more easily access EU funds. In fact, access to these, primarily

regional development funds, could not be achieved at all without an international partner.

The regional tourist associations cooperate actively, while private bilateral initiatives focus mainly on cultural and educational projects. Both parks decided to apply for an evaluation of the transboundary cooperation, carried out by EUROPARC in 2007. The experts confirmed that the international cooperation was in line with EUROPARC's criteria and awarded the certificate to both parks in that same year. Furthermore, both parks were awarded the European Diploma by the Council of Europe in 2000 (CZ) and in 2003 (A).

Benefits and challenges

The central feature of the two national parks is the Thaya River valley, cut up to 150 metres deep into the rocks of the Bohemian granite massif. Ecosystem management can only be successful if management is based on equal principles and considers the interests of the partner on the other side of the border.

There are several examples of more or less successful transborder cooperation that can illustrate the specific situation in the Thayatal. The type of administration is different on both sides, which does not facilitate easy cooperation. The Czech national park administration reports directly to the Ministry for Environment, whereas the Austrian park is administered by a private limited liability company.

Border river management

Although the river section in the parks is only 45 km long and on average 30 m wide, the Thaya River valley is one of the main ecosystems of the parks. Upstream, outside the park boundaries, the Vranov hydropower plant was built in 1935. Since then, the system of energy production, which runs in a hydro-peaking mode, has greatly impacted the river ecosystem. An artificial flood of icy cold water runs through the river section in the parks and disturbs the ecosystem up to four times a day. During operation, the river flow can reach up to 45 m³/sec, but in between, the water freight falls to less than 1 m³/sec.

In cooperation with the bilateral Austrian-Czech Border Waters Commission, the owner of the power plant and the Czech river management authorities, the national parks argued for a higher minimum water flow (Helesic and Kubicek 1999), which has now been raised to 2.6 m³/sec. Other improvements are still under discussion. A bilateral project on the reproduction of local fish stock is underway, and work on the sills that are a barrier for connectivity of

migrating fish is under discussion, in line with the EU Water Framework Directive.

Fisheries

A great challenge for the national park management is recreational fishery in the park. So far, most restrictions have only been imposed on the Austrian side. Some regulations have been harmonised between the park administrations, but not for the entire park area. The Austrian administration is the owner of the fishing right which authorises it to define strict regulations. The Czech park administration has not been entitled thus far to hold any fishing rights in the Thaya River.

National parks forests

Both parks along the Thaya River are mainly forest parks. More than 85% of the area is covered with deciduous forest, with a few stands of conifer trees brought in and planted by commercial forestry (Wrbka et al. 2010). There are differences in forest management in the two countries. The Czech park authorities plant trees, which are fenced to protect against damage caused by wildlife like Roe deer, whereas the Austrian park administration believes in natural rejuvenation of broadleaf trees without human intervention.

Visitors

A transborder park is an attraction for visitors. In addition to the beauty of nature in the protected areas, the possibility of visiting another country is an additional incentive. According to recommendations by IUCN, protected category II areas (both parks are designated as such) allow for recreation, leisure and education (Dudley 2008). When Thayatal National Park was established in 1999, it was a clear target that environmentally friendly tourism should be developed together with tourist associations and tourist enterprises. The situation in the Czech Republic is different. In Znojmo, with over 40,000 inhabitants, the Podyjí National Park functions also as a local recreation area, which creates certain pressures. Plans in Austria to build additional hiking routes including a suspension bridge across the river have been neglected by the Czech partner to avoid additional visitor pressures.

International funding

EU funding for transboundary projects clearly benefits both parks. Several projects have already been carried out or are underway. One of the main projects was construction of the Thayatal-Podyjí National Park

Information Centre, inaugurated in 2003 in Hardegg (Austria), where information on both national parks and an exhibition about the making of the landscape and the biodiversity are provided in three languages (German, Czech and English).

A recent project co-financed by the European Territorial Cooperation Fund is a research project on ecosystems, biodiversity and rare species, including the Wild cat, which was rediscovered in the Austrian part of the park after being declared extinct in Austria more than 30 years ago. Without this additional EU funding, the national parks would not be able to fulfil their tasks in a timely and cost effective manner, especially in times of budget cuts and personnel restrictions.

The parks in the Thayatal were established at different times and under different circumstances. Podyjí National Park was founded soon after the fall of the Iron Curtain, while discussions about the Austrian Thayatal National Park lasted more than six years. A few years ago, the courts of auditors in both countries evaluated the transborder cooperation in different environmental projects and declared the cooperation between the two national parks as excellent and a model for other common projects. Nevertheless, different expectations and management systems still exist. One of the important tasks for both partner parks is to discuss these differences and develop solutions.

Lessons learnt and future prospects

Efficient transborder cooperation depends on the goodwill and possibilities of the partners, and on the legal framework provided by the responsible State authorities. Transboundary parks worldwide are still administered by two or more authorities and there are only a few examples in which a single park authority is established across borders, though this would be the best practice model for protected area management and would definitely be more cost effective. However, this remains only a vision (IUCN/WCPA 1999).

It has been shown that the support of other institutions or administrative bodies could be very helpful in resolving problems, as was done in the Thayatal together with the bilateral Austrian-Czech Border Waters Commission to reduce the impact of the Vranov dam on the river ecosystem. Other support was provided by the provincial water management authorities in discussions regarding dead wood along the Thaya River that could have fallen in the river and caused problems downstream. In this case, a monitoring system was implemented. Such cooperation can help to overcome deadlocked discussions.

Mountain parks where the border runs along high peaks might be in a different situation, but parks in lowlands or along rivers, lakes or seas, need clear, common management. It might have been a mistake in the Thayatal that the common principles for the management were elaborated in a rather general plan. It is a clear recommendation that transborder protected areas should have a very detailed management plan agreed by both sides and implemented together (Brunner 2000).

No progress can be made without support from the responsible politicians and authorities. This is also necessary in the case of financial support, especially from international and EU funds. Nature protection is not only the task of single countries but of society worldwide.

Transborder cooperation in nature protection is a challenging task and, in addition to benefiting nature, it can lead to better understanding between people and states.



© National park Thayatal / D. Manhart

13. Cross-sectoral Cooperation for Bird Conservation — Green Balkans NGO and Bulgarian Chief Directorate Border Police

Dimitar Popov¹

Geography of the area

The areas of the Eastern Rhodope Mountains, Sakar Mountain and Derventski Heights are located in south-eastern Bulgaria, and form the state borders between Bulgaria, Turkey and Greece. The mountains form part of

areas is due to the combined influence of three different bio-geographic regions: Mediterranean, Continental and Irano-turanian.

The area hosts extraordinary biodiversity that ranks among the hotspots in Europe. The region is of key importance for the conservation of various species of global and European conservation concern, such as the Imperial eagle (*Aquila*



© Dobromir Dobrinov / Green Balkans NGO

the South-Eastern European Green Belt. The overall area of the Bulgarian part of the mountains is 670,446 ha.

Sakar, Derventski Heights and Eastern Rhodopes are low mountains (average altitude 300-400 m), with rugged terrain formed by the lower catchment areas of the three largest rivers that spring in Bulgaria: Maritsa², Tundzha and Arda. The climate is continental with Mediterranean elements. The areas are significantly deforested with many vast open areas – pastures, meadows and highly fragmented arable lands. More significant broad-leaf forests and secondary coniferous forests are preserved along the gullies and inaccessible terrain. The great variety of species and habitats in these

heliaca), as 90% of the Bulgarian population of this species nests in the area. This area represents the only habitat of the Balkan population of the Black vulture (*Aegypius monachus*), while 70% of the Bulgarian population of the Egyptian vulture (*Neophron percnopterus*) is found here (Nankinov et al. 2004), and this is also the last known nesting location of the Lesser kestrel (*Falco naumanni*) in Bulgaria. The most vital Bulgarian populations of Greek tortoise (*Testudo graeca*), Hermann's tortoise (*Testudo hermanni*), Pond terrapin (*Emys orbicularis*) and Balkan terrapin (*Mauremys rivulata*) inhabit the area (Petrov 1997). The area is also of significant importance for the conservation of populations of other species, such as Lesser spotted eagle (*Aquila pomarina*), Short-toed eagle (*Circaetus gallicus*), Black kite (*Milvus migrans*), Long-legged buzzard (*Buteo rufinus*) and Black stork (*Ciconia*

¹ Project Coordinator, Green Balkans NGO, Bulgaria.

² Turkish: Meric, Greek: Evros.

nigra). Various priority habitats, important species and endemic and rare plant species listed in the EU Habitats Directive can be found in the area.

The limited access to the border area during the Cold War defined its socioeconomic underdevelopment. During these years, many of the villages and towns lost part of its population due to migration to the interior of the country where industries and new jobs were created and access was not hindered. Along the border, the main economic activities were related to agriculture. Collective farms with hundreds of sheep, cows and pigs were established. The main crops grown in these regions were grains (wheat, barley), vineyards, and tobacco. In the municipal centres (Svilengrad, Ivailovgrad, Bolyarovo), light industry drove economic activity (textile, clothes, small machinery, etc.). The social structure was strongly influenced by the presence of large army outfits where military personnel and their families were settled.

After the political events at the end of the 20th century, the socioeconomic situation changed significantly. The breakdown of collective farming and small industries caused further emigration of locals. The accession of Bulgaria to NATO and the following drastic decrease of the Bulgarian Army led to the closure of almost all the military outfits in the region, causing further demographic reductions. Nowadays, the border area is open to all entrepreneurs. Agriculture is still the main economic activity and many of the abandoned lands and natural grasslands have been turned into intensively farmed land, fuelled by the EU CAP and national subsidies. Additional negative impacts on preserved wildlife are caused by investment proposals for development of wind farms, gravel and rock quarries, and hydro and solar power plants.

The area has a long history as a point of contact between two continents with different cultures (Europe and Asia) and two religions (Christianity and Islam). Additionally, the area was behind the Iron Curtain – the former border between two ideological blocks that divided Europe for 40 years in second part of the 20th century: the Communist east (Warsaw Treaty countries) and the capitalist west (NATO countries). Bulgaria was part of the former, while its neighbours Turkey and Greece belonged to the latter. Under this political situation (until 1990), the area was entirely isolated in terms of economic development and the access of people was highly impeded. The borders were strictly guarded day and night by opposing armies that employed different means: barbed wire and fencing with electric signalization, ploughing of border land strips, guard dogs, watchtowers, etc. (part of these structures still exist, though they are no longer in use). Along the Bulgarian side of the border, a 30 km strip called the border

area was established. People from interior of the country had limited access to that area and needed a special permit, called an “open sheet”. This fact contributed to the conservation of pristine nature and landscapes and the traditional livelihood of the local population, and natural resources were significant spared. Due to the limited access to these areas in the past, today they preserve rich biological and landscape diversity.

Milestones of historical development

The Green Balkans NGO team started its cooperation with the border control authorities – Elhovo Regional Border Police Directorate (responsible for guarding the Bulgarian-Turkish border) and Ivailovgrad Border Police Station (responsible for guarding part of the Bulgarian-Greek border) at the very start of its work on conservation of the Imperial eagle and the Vultures (Nikolov et al. 1998). This was virtually before even scientists and biology students from Plovdiv and Stara Zagora with a strong interest in bird conservation established the Green Balkans NGO in 1988.

In the 1980s, one of the founders of Green Balkans was working for the Bulgarian Academy of Sciences in the region of Sakar. During his explorations of the area together with other members of Green Balkans, and with help of local people, he made an astonishing discovery of an Imperial eagle population. Before that find, only one nest of the species was known in Bulgaria, at the Sredna Gora Mountain in central Bulgaria (Michev and Petrov 1985). However, it would not be until the fall of the Iron Curtain that the 30 kilometre strip along the Bulgarian-Turkish border would become accessible for further wildlife explorations. In the 1990s, experts began regular explorations for new nests and territories inhabited by this threatened species. This work of the conservationists required regular visits and continuous presence in the border area.

The Imperial eagle conservation programme of the Green Balkans NGO began in the late 1980s. Activities included: study and regular monitoring of all known nests; expeditions for localizing new nests of Imperial eagle and study of suitable breeding areas; guarding and monitoring endangered nests during the breeding period; tree planting; placing artificial nests; developing proposals for new protected areas and inclusion of Imperial eagle habitats in the NATURA 2000 ecological network, and tagging Imperial eagles with radio and GPS transmitters to track their movements and migration.

Another significant discovery was made in the Eastern Rhodope Mountains in 1993: the first successful breeding of the Black vulture in Bulgaria in the past 100 years

(Marin et al. 1998). The initial cooperation with the border police was established to allow irregular feeding of vultures (Griffon, Black and Egyptian) in the vicinity of Madzharovo along the Arda River. The Green Balkans' vulture conservation programme has been implemented since 1991, and includes the following activities: study of habitats and regions suitable for conservation and reintroduction of vultures; establishment of a 'vulture restaurant'³ in the Eastern Rhodopes (Pelevun village, Ivailovgrad Municipality); installation of artificial nests; campaigns against poison-bait use; joint radio-telemetry of Black vultures with WWF-Greece in the border region of the Eastern Rhodopes. Over the years, these programmes have received financial support from different donors including: Frankfurt Zoological Society, DBU and EuroNatur (Germany), PTES (UK), and EAF (Holland). Currently these activities are being implemented within the project "Conservation measures for target species of the EU Birds Directive – Lesser kestrel, Black vulture, and Imperial eagle in their main habitats in Bulgaria" implemented by Green Balkans with the financial assistance of the European Regional Development Fund of the European Union and the State budget of the Republic of Bulgaria through the Operational Programme Environment 2007–2013.⁴

From the above, it is clear that many of the activities were done on the spot and required access to the border area. Until 1997, the border was guarded by the Bulgarian Army Border Corps, consisting of young men carrying out their national military service and professional officers. Additionally, the region held many outfits and facilities of the Bulgarian Army. In 1997, the Border Police Directorate was established as a professional unit of the Ministry of Interior responsible for guarding the national border. The cooperation between Green Balkans NGO and the Bulgarian Border Police is based mostly on goodwill and mutual respect, and the cooperation is informal.

Benefits and challenges

The partnership between the Green Balkans NGO team and the Border Police along Bulgaria's borders with Turkey and Greece is a very positive example of good collaboration between stakeholders from different sectors that have different objectives. Despite the fact that the two sides pursue different objectives, their interaction at the regional level and the successfully implemented awareness campaign have forged a flourishing partnership that has benefitted the conservation of two of Europe's rarest birds - the Imperial eagle and the Black vulture.

The Green Balkans NGO's conservation programme for the Imperial eagle would not have been as effective without the support and help of the Border Police operating in the region. The importance of good relations between the Green Balkans NGO and the Border Police in the activity to locate new nests and territories occupied by these birds is immense. Some of the transects covered were virtually between the lines of barbed wire and fences. All research was carried out with a permit and often with the support of the Border Police. Regular exchange of information on observations between the two sides has been a source of identification of newly formed pairs and their territories. In this process, conservationists have taken on the role of teaching the police officers how to identify the birds, and the officers used that knowledge during their patrolling activities. The feedback information they provided to the experts was used for the study of bird behaviour and to determine the locations of their feeding and breeding sites. These explorations brought further success and it turned out that the Bulgarian-Turkish border has become a stronghold for the last remaining Imperial eagles in Bulgaria, with nests even situated on the very border and the occupied territory falling under both countries⁵ – the birds didn't need passport control!

Since the end of the 1990s, the Green Balkans team began to organize nest guarding and supplementary feeding during the breeding season. It has been proven that human disturbance during incubation is one of the main reasons for the poor breeding season of the Imperial eagles. The main task of the volunteer guards is usually to watch for and prevent such disturbances, with the support of environmental authorities, foresters and local officials. Gradually, the Border Police has become the main and most responsive partner in cases of disturbance. There are several reasons for this: flexibility in reaction to signals and constant presence in the area; personal interest in the welfare of the eagles – symbol of the region; remoteness from the region of other authorities. Over the years, a link was established between the experts and volunteers that were guarding and monitoring the Imperial eagle nests and the Border Police officers. In a way, both these guards – those guarding the border and those guarding the Imperial eagle nests – were colleagues supporting one another. The nest guards sought the support of the Border Police in cases of disturbance of the birds, while they also informed the police officers of any intruders.

The personal concern adopted by the Border Police for the welfare of the Imperial eagles is illustrated by the questions regularly asked, such as, "How are the eagles doing?", "How many chicks do they have?", etc., and the support they provided in cases of distress for the birds

³ A vulture restaurant is a place where fresh and poison-free meat and/or carcasses of domestic livestock or wild mammals are put out for vultures and other scavengers.

⁴ More information about the project at: www.greenbalkans.org/birdsofprey/opos/

⁵ As confirmed by recent studies performed by the Green Balkans NGO.

including other species. In 2006, an Imperial eagle nest was knocked down during a storm; one chick was killed while a second survived though with a broken pelvis. The nest guards reported the case and, with the help of the Border Police, rescued the wounded chick and transported it to the Green Balkans Wildlife Rescue Centre in Stara Zagora. After successful treatment, the bird was ready for release and the Border Police officers insisted it be released in the same area where it was found. They were delighted to be present at the release and to keep an eye on the released juvenile bird in nature afterwards.

Quite often, the experts of Green Balkans organise visits to the area with foreigners – international donors, partners and birdwatcher groups. The support provided by Border Police during such visits always impressed the foreign visitors and it wasn't by chance that it has attracted the interest of the foreign media. In 2006, the EuroNatur Foundation of Germany organized a study tour for German journalists to the Bulgarian part of the European Green Belt. The story of Imperial eagle conservation based on partnership between Green Balkans NGO and the Border Police was found to be of great interest. An article entitled "An alliance for the Imperial eagle" was published in the "Berliner Zeitung" and focused on the surprising alliance for protection of the Imperial eagle. One of the most popular German magazines "natur + kosmos" also found the story to be exciting and ran a long article on the European Green Belt within Bulgaria and the partnership entitled "Police protection for eagles". In 2008, a UK film-making team

made a documentary on the European Green Belt called "Iron Curtain – the Ribbon of Life" and decided to present the South-Eastern European Green Belt within the same story. The support given by the Border Police on these two occasions was immense, both in facilitating access and showing their concern and support for Imperial eagle conservation. It was an extraordinary and unconventional way for nature conservation to intrigue the media.

In the Eastern Rhodopes, the developed collaboration also benefits the conservation of vultures, most of all the Black vulture. One of the first steps after identification of the region as an important last sanctuary for the species in the Balkans was to develop and carry out an awareness raising campaign. The Ivailovgrad Border Police Station supported the campaign and an information board was set up at one of their checkpoints. After establishment of the "vulture restaurant", the regular collection of dead animals began. The scheme is operated by the local coordinator from the village of Pelevun. Being local, he had good connections with local community, including the Border Police. The operation of the "vulture restaurant" has benefited both local farmers and carrion eating birds. The system is based on the voluntarily provision of dead animals, and the Border Police helped to promote the project within the community. Additionally, they provided valuable information for the observation of flying or feeding vultures and other birds of prey. Later, a joint transboundary project for radio-telemetry of Black vultures was implemented by Bulgarian and Greek researchers.



© EuroNatur / Gunther Willinger

During its implementation, the Border Police also proved to be a helpful partner, by providing advice and access to high vantage points – a must for successful detection of tagged birds. One of the telemetry stations was situated directly under one of the Border Police watch towers by the old fencing.

Lessons learnt and future prospects

The years of partnership between the Green Balkans NGO and Border Police Directorate units along Bulgaria's borders with Turkey and Greece are effective due to excellent communication and mutual respect for each other's efforts. The successful story of Imperial eagle conservation at Sakar Mountain and Derventski Heights would not have been a success if both parties had not followed these principles. Effective communication is the main reason why police officers perceive the Imperial eagle as a living symbol of their region. The emotional story of the almost extinct "Master of the Storms", that has found its last resort in an inaccessible remote region, makes up for the negative images of the Iron Curtain, dominated by fences and searchlights.

The successful partnership forged on the conservation of vultures in the Eastern Rhodopes would not have been

possible without an active awareness and information campaign. In the beginning the locals, including the Border Police, felt the conservationists' work was unclear. After identifying its benefits, i.e. saving costs for the transport and burning of dead animals, increased popularity of the area as nature sanctuary, the local community began to support it and express interest in the project. The Border Police have proven to be a reliable and important partner within the project.

After Bulgaria's accession to the EU, the Bulgarian-Greek border is not so strictly guarded and the Border Police is almost non-existent in the area. On the other hand, the Bulgarian-Turkish border is taking on greater importance in its role as the EU outer border. This indicates the possibility for future active cooperation between the Green Balkans NGO and the Border Police in the areas of Sakar Mountain and Derventski Heights, directed at Imperial eagle conservation.

Acknowledgements: The author wishes to express his gratitude to the Elhovo Regional Border Police and the Ivailovgrad Border Police Station for their constant support during their work in this region, and to Ms. Lora Lubenova, Spokesperson of the Border Police Directorate for editing the case study.



14. Jablanica-Shebenik — Working Towards a Transboundary Protected Area for the Balkan Lynx

Annette Spangenberg¹, Spase Shumka²,
Gjorgji Ivanov³

Geography of the area

The Jablanica and Shebenik Mountains are located north-west of Ohrid and Prespa Lakes, respectively. Jablanica Mountain marks the southern border between Albania and Macedonia, while Shebenik Mountain is situated entirely in

is composed of limestone. The karstic origin is seen in the presence of several springs, the most prominent of which are the Vevčani Springs in the village Vevčani in Macedonia. Most of the geology of Shebenik Mountain is composed of serpentinite.

The slopes of Jablanica-Shebenik are dominated by forest. From altitudes of 600 m to 1,300 m, the landscape is characterized by thermophile oak and Oriental hornbeam



© MES

Albania and forms a parallel mountain range to Jablanica. On the Albanian side, the Jablanica-Shebenik Mountains are dominated by high inclinations with elevations varying from 300 m to 2,262 m (Rreshpa-Shebeniku peak). The highest peak on the Macedonian side is Crn Kamen (2,257 m), while the most prominent summit is Strižek (2,233 m). Both the Jablanica and Shebenik Mountains are known for a variety of glacial and periglacial relief forms, among them several cirques and glacial lakes. A considerable part of Jablanica

(*Carpinus orientalis*) forests, followed by broad-leaved mixed oak-hornbeam or oak forests. Pure beech forests cover the slopes between 1,300 m and 1,800 m. Subalpine and alpine grasslands extend above the tree line and are mainly used as high-mountain pastures (MES 2006, PPNEA 2006).

The local population of the Jablanica-Shebenik Mountains has used the natural resources (mainly wood) of the area for centuries. On the Macedonian side, the oak belt was mostly exploited. Today, the most preserved oak forests are found in the stream gorges in the northern parts of Jablanica, owing to the harsh relief in this part. Beech

¹ Project Manager, EuroNatur, Germany.

² Executive Director, Preservation and Protection of Natural Environment in Albania (PPNEA).

³ Project Assistant, Macedonian Ecological Society (MES).

forests are also cut, with the exception of the subalpine beech forest. However, clear cutting is almost absent, so the beech forest on the Macedonian side has retained its natural appearance. In former times, the grasslands above the tree line were used as summer pastures for sheep. Today, however, with few sheep farmers remaining, grazing of high mountain pastures has significantly decreased.

On the Albanian side, the picture is completely different. Isolation of the country under Communism led to the mismanagement and overexploitation of much of the country's natural resources, including the forests of Jablanica-Shebenik. Only in the higher elevations of the mountain range were stocks of intact beech forest preserved, as only restricted access was permitted due to their vicinity to the border. In the early 1990s, in the transition phase after the political changes ensuing from the fall of the Iron Curtain, it was again possible to enter the border areas. A second wave of overexploitation started with organized gangs illegally felling trees on a massive scale and benefitting from weak administration and a lack of enforcement. This period decimated many up to then intact beech forests in Albania, including some on Shebenik Mountain. Like the pastures in Macedonia, the subalpine and alpine pastures on the Albanian side of the mountain are used less than in former times, mainly due to the fact that livestock is preferably kept in close vicinity to the villages. This led to further exploitation of the oak belt, hindering natural forest regeneration. Although exploitation of the beech forests continues, and is in many cases illegal, the forests on Jablanica-Shebenik are well preserved in comparison with other mountainous regions in Albania. After the fall of the Iron Curtain, it became obvious that the border area represented a green belt. This resulted in inclusion of the area in the Biodiversity Strategy and Action Plans of both Macedonia and Albania, which stated that the area within Macedonia would become a national park by 2006 (Ministry of Environment and Physical Planning of the Republic of Macedonia 2003), and the area in Albania would become part of the Proposed Representative Network of Protected Areas (Bego and Koni 1999). In this context, the term "transboundary protected area" was mentioned. Additionally, Jablanica Mountain was indicated as part of the Macedonian Green Belt in the Green Belt Map of Macedonia.⁴ Considered a natural jewel of South-Eastern Europe, Jablanica-Shebenik massif is an integral part of the European Green Belt Initiative.

Milestones of historical development

The premise for initiating transboundary cooperation in the Jablanica-Shebenik area was the assumption that the mountain ranges are habitat for the Balkan lynx (*Lynx lynx martinoi*), a subspecies of the Eurasian lynx (*Lynx*

lynx). With an estimated population of less than 100 individuals, the Balkan lynx is considered to be the most threatened autochthonous lynx population in Europe. The present distribution of the Balkan lynx is restricted to the south-western Balkans, mainly the border areas between Macedonia and Albania, spreading north into Montenegro and Kosovo. Here, the species has survived, as the border region between the former Yugoslavia and Albania was an area with limited access. Recognizing the need to protect the Balkan lynx as well as the overall biodiversity on Jablanica-Shebenik Mountain, and paving the way for potential cross-border cooperation in considerable parts of Jablanica-Shebenik, the project "The Balkan Green Belt as an Ecological Corridor for Wolf, Bear and Lynx" was initiated in 2005. The project was financially supported by the German Federal Agency for Nature Conservation and jointly implemented by EuroNatur and its national partner organizations Macedonian Ecological Society (MES) and Preservation and Protection of Natural Environment in Albania (PPNEA). The partners gathered data on flora and fauna, and other natural and cultural values of Jablanica-Shebenik Mountains, in order to prepare the technical documents necessary for proclaiming the protected areas. Maps with suggestions on the zoning of future protected areas were prepared in close discussion between the Albanian and Macedonian NGO partners to ensure uniform zoning on both sides of the border. National authorities in the relevant ministries and the local population were regularly consulted. As the site was included in the Biodiversity Strategy and Action Plans of both Macedonia and Albania, political support for the project was assured.

In 2006, EuroNatur, KORA, MES and PPNEA lobbied for a Memorandum of Understanding for the protection of the Balkan lynx to be signed between the environment ministries of Albania and Macedonia. The initiative failed due to lack of support to bring the issue forward at the government level.

Shortly before the project ended in 2007, the technical documents and the zoning map were submitted to the Ministry of Environment, Forests and Water Administration in Albania. For Macedonia, the submission was postponed in order to further improve the technical documents.

The continuation of works on Jablanica-Shebenik was made possible within the frame of the Balkan Lynx Recovery Programme, jointly implemented by the same partners and Swiss large carnivore expert organization KORA, and with the financial support of the Swiss MAVIA Foundation for Nature Conservation. The report on the natural values of Jablanica Mountain was improved, and lobbying was increased at the national and local levels in

⁴ www.eea.europa.eu/soer/countries/mk/nature-protection-and-biodiversity-state

both countries. Finally, the first success was achieved in May 2008, as the Albanian Government proclaimed the Shebenik-Jablanica National Park, covering an area of 340 km². Although the reports for the Macedonian side were improved and officially submitted in the second half of 2009, and regular discussions were held with the Ministry of Environment and Physical Planning and the strong support of the Ministry received, proclamation of the national park has not yet been achieved in Macedonia, and the proposal is still pending.

The only way to create a coherent protected area with a complementary zoning system, taking into account the natural values of the mountain system and the needs of the species inhabiting the area rather than political borders, is to establish transboundary cooperation. This initiative is strongly supported by local NGOs (MES, PPNEA), and the internationally active foundation for nature conservation EuroNatur (based in Germany), which continues to foster the strong cooperation that emerged during the joint work in Jablanica-Shebenik.

Benefits and challenges

The transboundary cooperation in the Jablanica-Shebenik area to date has only been functioning at the non-governmental level and through informal

activities. Nevertheless, the partners involved share the vision of the future protection of the entire mountain range, independent of state borders, creating a coherent protected area with an approximate size of 500 km². The close cooperation established during the development of the zoning concepts for the national protected areas formed an important basis to turn that vision into a reality. During the intensive work in the area, good contacts were made with the local population on both the Albanian and Macedonian sides, and support of relevant stakeholders at the local level was assured, as these stakeholders also see the economic opportunities arising from such a transboundary protected area in the future, e.g. through nature based tourism. However, there are still some obstacles to overcome until a transboundary protected area can become a source of income for the local population. Due to the fact that a national park has only been proclaimed on the Albanian side while proclamation is still pending on the Macedonian side, the greatest challenge at this time is to foster the proclamation of a national park on the Macedonian side. Once both national parks are established, the next challenge will be to develop administrative entities in both countries, which will be important for turning the vision of a transboundary protected area Jablanica-Shebenik into reality.



The Albanian and Macedonian partners and EuroNatur drafted the Balkan Lynx Conservation Strategy under the Balkan Lynx Recovery Programme-Phase I in June 2008. The Strategy calls for the establishment of protected areas in accordance with the National Biodiversity Strategy and Action Plans, Emerald Network, Natura 2000 and the Green Belt Initiative, with special emphasis on the needs of a viable Balkan lynx metapopulation (Balkan Lynx Strategic Group 2008). The establishment of Jablanica National Park in Macedonia is noted as an important objective, while Shebenik-Jablanica National Park designation was not included, as it had been proclaimed shortly before the Strategy was drafted. The Strategy served as a basis for the development of National Action Plans. However, the Strategy and National Action Plans have not yet been endorsed by the respective governmental authorities, though lobbying from NGOs will continue.

Against this backdrop, one of the most important aspects is to work with the local population on both sides of the border to ensure continuous support for the transboundary protection of the mountain range. This also includes the implementation of small scale transboundary projects. For example, EuroNatur, MES and PPNEA jointly worked on the establishment of a transboundary hiking trail, extending across both sides of the Jablanica-Shebenik Mountains to several peaks of the transboundary mountain ridge. Peak Krstec is considered to be the main traverse, as a transboundary trail used in the past already existed here. The locals were involved in the works related to clearing and marking the trails, or putting up sign posts and information panels. A one-day visit to Jablanica Mountain was organised for the mayors and representatives from the forestry authorities from Shebenik-Jablanica region, where they met their counterparts from Macedonia. This "exchange visit" created the basis for discussions about the future development of the mountain range.

MES, PPNEA and EuroNatur will continue to lobby for the proclamation of a national park in Macedonia, and for the establishment of an administrative structure for the national park in Albania. Another important aspect within the scope of work of the project partners is to contribute to the development of management plans with matching objectives for both national protected areas to create a basis for management of the future transboundary protected area.

Lessons learnt and future prospects

In order to avoid difficulties at a later stage, the zoning concept was jointly developed for the existing Macedonian and the future Albanian national park. The area benefitted from a productive participative approach towards the local

population, who were consulted on the issue of borders and the zoning of the future national park. The process created trust between the different players and acceptance by the locals towards the proclamation of protected areas. This becomes particularly important, considering that there is no national park on the Macedonian side yet and taking into account the lack of administrative structures on the Albanian side. Consequently, the current protection of the Jablanica-Shebenik mountain range relies more or less on the goodwill of the local population until the respective structures are created.

One reason for choosing Jablanica-Shebenik to work towards a transboundary protected area was the assumption that the effort would be strongly supported by the governmental authorities, as such was mentioned in the national Biodiversity Strategies and Action Plans. In general, this assumption worked well, though one lesson that had to be learnt while the project progressed is that interests can change, and consequently, the focus of governments can also change. Based on this lesson, it is even more important to continue working in the respective target area in order not to lose credibility and acceptance among the locals, despite the lack of political support.

The proclamation of a protected area is not necessarily accompanied by the establishment of a respective authority. Consequently, lobbying at the national level, and including local people, needs to continue.

Despite several obstacles on the way towards creating a transboundary protected area Jablanica-Shebenik as part of the South-Eastern European Green Belt⁵, the activities implemented to date can be considered very successful, especially considering the comparably short time that has passed since the start of the first activities in 2005. Based on the successes achieved so far, all the partners involved will continue their joint efforts aimed at turning the vision of a transboundary protected area Jablanica-Shebenik into reality one day.

⁵ Also referred to as the Balkan Green Belt.

15. Regional Economic Impact of Bavarian Forest National Park

Hubert Job¹, Marius Mayer¹, Manuel Woltering¹, Martin Müller², Bernhard Harrer³, Daniel Metzler⁴

1. Introduction

National parks are primarily an instrument for large-scale preservation of natural areas. Traditionally it was the uniqueness of natural phenomena that determined the designation of national parks. Today, ecological reasons such as the preservation of biodiversity are decisive. National parks are about unimpaired ecosystem dynamics or, more simply, "letting nature follow its course". This is a difficult task in densely populated Central Europe with its long cultural history and, consequently, a landscape with strong anthropogenic influences. National parks are often perceived as limiting factors within a region due to the restrictions they impose. The spatial-functional limitations and their associated economic limitations often lead to a lack of acceptance among the adjacent local population and local politicians. As a natural disturbance of forest ecosystems, the bark beetle (*Ips typographus*) is seen as an additional negative factor in the Bavarian Forest. This raises questions concerning the management of national parks and of visitor perceptions over the changed forest landscape. In turn, this complicates the sometimes very emotional debates in the region concerning the virtues and vices of national parks. Besides the goal of nature conservation, national parks offer an experience value, such as unspoiled wilderness, which can be used by the tourism industry. National parks and their attractions represent a scarce good, as there are few suppliers on the market (14 national parks in Germany). They cannot be replicated, transferred or imitated due to their legal status. Thus, national parks are the highlights of nature tourism in many countries.

National parks in Germany, however, do not always exploit their uniqueness sufficiently for tourism purposes.

In the context of national park tourism in the structurally weak periphery of Lower Bavaria (Niederbayern), the study⁵ examines the following questions:

- How important is tourism as an economic and employment factor?
- From a cost-benefit perspective, what is the relation of governmental inputs into the national park with these results?
- Has the potential of the brand "national park" previously not been recognised or used enough in tourism marketing?
- What economic interrelations exist between individual businesses in the national park surroundings, and how do they benefit directly or indirectly from the presence of the protected area?
- Are visitors of the neighbouring Šumava National Park (Czech Republic) a potential target group for the Bavarian Forest National Park, and could stronger cooperation between the two parks in the field of tourism reach this target group?

2. Methods

The methods are explained in more detail in the full version of the report. Therefore, only an overview of the surveys carried out is provided below.

In order to survey the number and distribution of visitors in Bavarian Forest National Park during the course of 2007, visitor counts and interviews were carried out on 22 days (weekdays and weekends) in the winter, summer and off-peak season. Short interviews asking about place of origin and type of accommodation were conducted with 11,140 persons. Of these, 1,990 persons were interviewed in more detail about their spending behaviour and travel motivation.

Enterprises in the counties of Freyung-Grafenau and Regen were asked to fill in a written questionnaire. Samples were taken using a stratified random selection process to ensure representativeness. With the sample quota adapted for each industry, 1,832 questionnaires were mailed out between July and October 2007. A total of 197 were returned, equalling a return rate of 10.8%.

3. Visitor numbers

The survey area (Map 15.1) includes the counties of Freyung-Grafenau and Regen. Figure 15.1 shows the development of overnight stays in the region since the 1980s, compared to its development in the whole of Bavaria and to the booming branch of city tourism.

¹ Julius-Maximilians-Universität Würzburg.

² Goethe-Universität Frankfurt am Main.

³ dwif-consulting e.V.

⁴ TNS Infratest GmbH.

⁵ This paper is a summary of a study entitled *Die Destination Nationalpark Bayerischer Wald als regionaler Wirtschaftsfaktor*. A short English version of the study can be downloaded from: www.nationalpark-bayerischer-wald.de/detail/veroeffentlichung/publikationen/d_berichte/doc/en_studie_job-kurz_ba.pdf

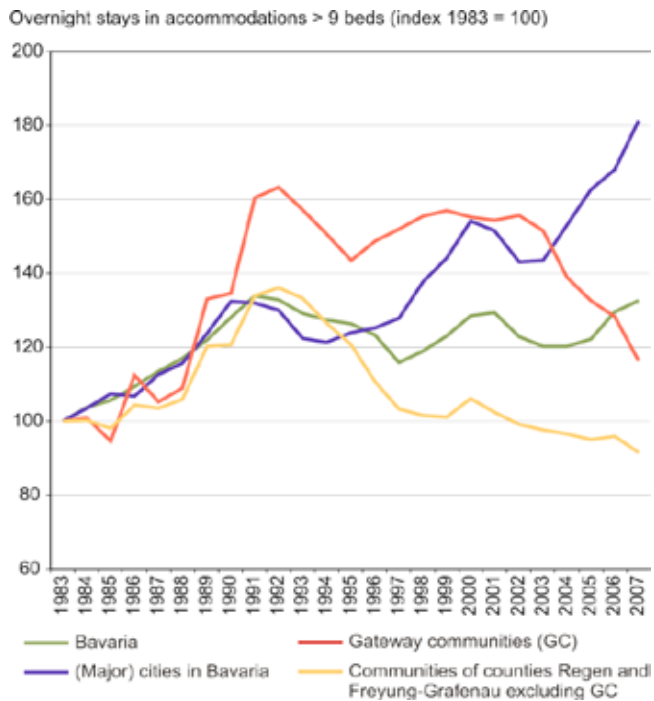


Figure 15.1: Development of overnight stays in the survey area and comparison areas

Source: Own illustration adapted from LfStaD 2008

With a total of 760,000 visitors in 2007, the national park is the most visited attraction in the region and receives almost three times as many visitors as the Mt Arber ski resort. A previous study estimated that between 1.3 and 1.4 million people visited the national park in 1981.

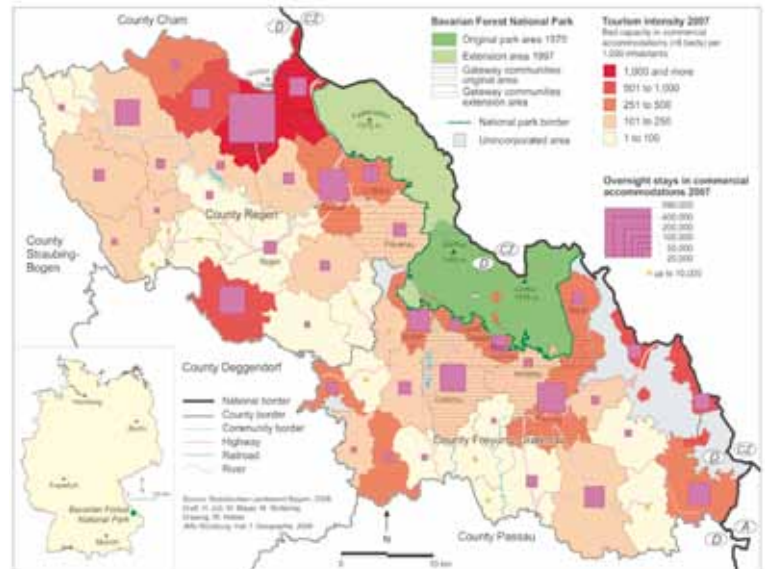
In the study from the early 1980s, however, no systematic year-round and area-wide visitor counts were carried out; the quoted figures were based on estimations by the national park administration. It is therefore impossible to compare the present study with its predecessor. Thus it would be wrong to conclude that the interest of tourists in Bavarian Forest National Park has declined over the years.

Visitor counts from the visitor centres Hans-Eisenmann-Haus and Haus zur Wildnis (opened in 2006), provide a more reliable comparison. In 1982, 211,000 people visited the Hans-Eisenmann-Haus centre and in 2007 around 255,000 visitors came to both visitor centres.

According to our survey from 2007, visitors are mainly concentrated around the primary tourist attractions (visitor centres and their wildlife parks) whereas the remainder of visitors are distributed widely across the entire protected area. Given this concentration on the visitor centres and the visitor numbers of the latter reported above, a visitor number of more than one million, either now or then, does not seem very realistic.

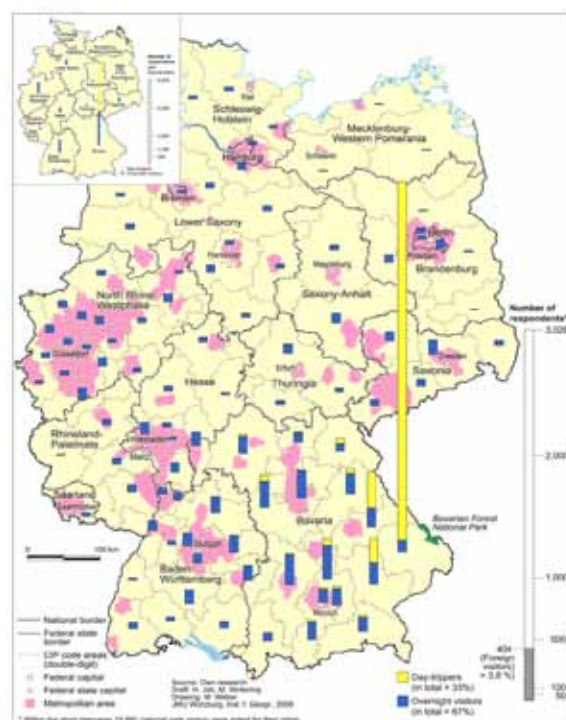
A total of 67% of visitors stay overnight (around 511,000 visitors). The remaining 33% (around 249,000 visitors) are day-trippers. The seasonal changes of these visitor numbers confirm the seasonal visitation pattern in the

region: the majority of visitors arrive in the summer and winter season, with fewer arrivals in the off peak months. There are, however, a few exceptions to the rule, for example during the Easter holidays and the autumn holidays. The highest visitor numbers in the summer season are registered during July.



Map 15.1: Survey area Bavarian Forest and tourism intensity of its communities

The majority of visitors come from Germany. Only 3.9% come from foreign countries (Map 15.2), primarily from neighbouring countries such as the Czech Republic, Austria or The Netherlands. The main place of residence for around 28% of the respondents is in the postal code area 94, i.e. from the area surrounding the national park, reflecting a vast majority of day-trippers.



Map 15.2: Origin of visitors to the Bavarian Forest National Park

4. Importance of the national park brand in the Bavarian Forest

The visitors of the national park are divided into two groups according to their affinity to the national park: visitors with high affinity to the national park (45.8%) and other visitors (54.2%) (Figure 15. 2).

According to the total number of visitors in 2007, the following division between visitors with high national park affinity and other visitors, and the respective percentage of day-trippers and overnight visitors (Figure 15.3) can be derived from the visitor structure of the national park: almost half of the tourists are motivated to visit the region because of the presence of the national park. This shows the leading position of Bavarian Forest National Park as a German national park destination. This result is a positive outcome for Bavarian Forest National Park when compared to others, as the park lies ahead of both Müritzt National Park (43.7%) and Berchtesgaden National Park (10.1%).

Only 57.3% of the respondents in Berchtesgaden National Park were able to answer the question about the legal conservation status of the area correctly. In Müritzt, the number was 76.7%, which was topped by Bavarian Forest with 86.1%.

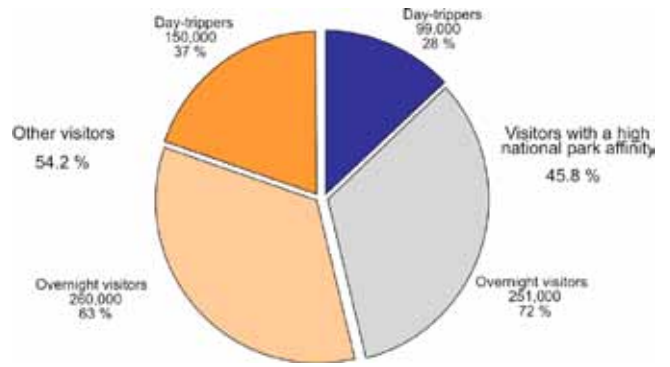


Figure 15.3: Visitor structure in Bavarian Forest National Park
Source: Own research 2007

The share of visitors with a high national park affinity visiting Müritzt National Park, which is 20 years younger, already lies just below that of the Bavarian Forest. The main reason for this is the much longer existence of market-based tourism in the Bavarian Forest. Thus, even without the national park, the region is part of tourists' mental map when it comes to their travel decision because of other attractions.

Secondly, interviews with tourism entrepreneurs (owners of tourism businesses) show that the identification of the local population with Bavarian Forest National Park is weaker than it is in the Müritzt region.

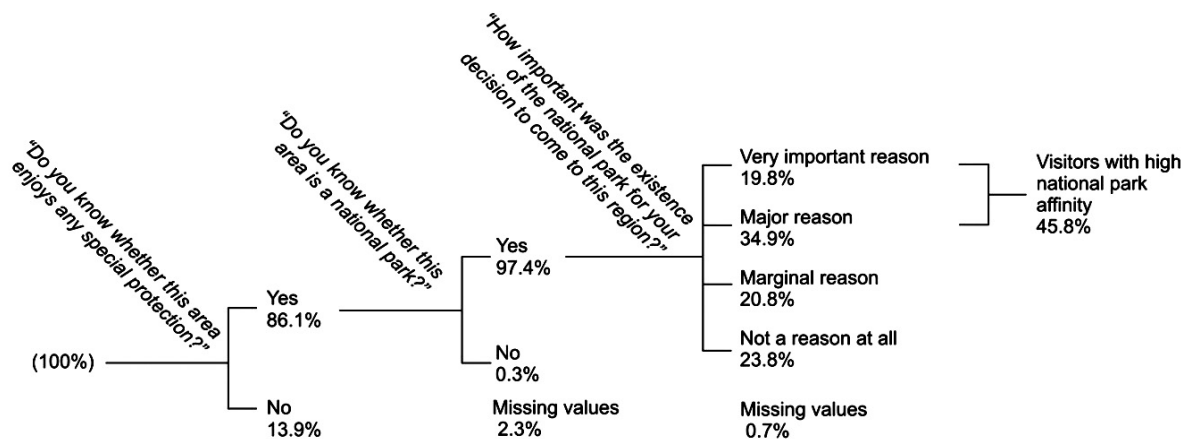


Figure 15.2: Affinity to the label "national park"⁶
Source: Own research 2007

The role of the conservation status of the area in the visitors' decision to visit the region varies significantly. The majority of respondents (54.7%) placed themselves under the two top categories "the national park was a very important reason for this visit" and "...was a major reason for the visit". It is interesting to note that the national park has a higher significance for overnight visitors than for day-trippers. Nevertheless, it should be remarked that the share of visitors with a high national park affinity is not completely satisfactory.

The national park only plays a relatively small role in the marketing mix of the responding enterprises, despite the fact that the national park has existed in the region for almost four decades and despite the high interest of tourists in the protected area (Figure 15.4).

The national park has a similar importance as in Berchtesgaden and a much lower importance than in Müritzt National Park (Figure 15.5).

There are, however, significant regional differences between the original part of the national park in the county Freyung-Grafenau and its extension area in the county of Regen. In the original part of the park, a higher percentage

⁶ The proportion of tourists with a high national park affinity refers to the total number of visitors. Visitors who do not know the conservation status of the region (13.9%) or the national park (2.6%) are not included in this percentage.

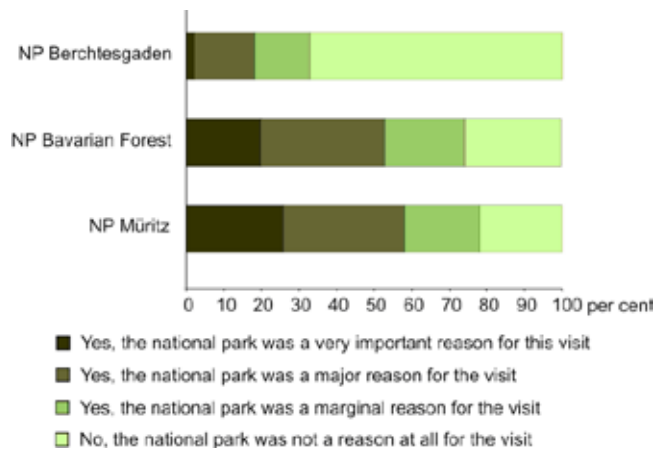


Figure 15.4: The role of the national park in the decision to visit the area
Source: Job/Metzler/Vogt 2003, Job et al. 2005, own research 2007

(95%) of respondents believed the park to play an important role in the marketing than those interviewed in Müritz National Park (85%). In the extension area, however, the Bavarian Forest National Park plays a less important role (42%) compared to the alpine Berchtesgaden National Park (76%).

There is still a lot to be done where internal marketing in the region is concerned, as accommodation providers (particularly in the extension area) do not promote the national park enough to their guests. Though the East Bavarian Tourism Association has recently started more intensive promotion of the national park, many of the local enterprises have yet to recognize this marketing opportunity due to a lack of own initiatives. In marketing outside of the region, there is also a lack of tourism products that are specific to the national park and take the market demands into consideration. In addition, tourism management, a department not previously present, should become more important within the national park administration.

In general, the large gap between guests that are aware of the protected area status (86.1% of the visitors recognize the national park) and those for whom the status is the dominant reason for visiting the area (45.8%) illustrates

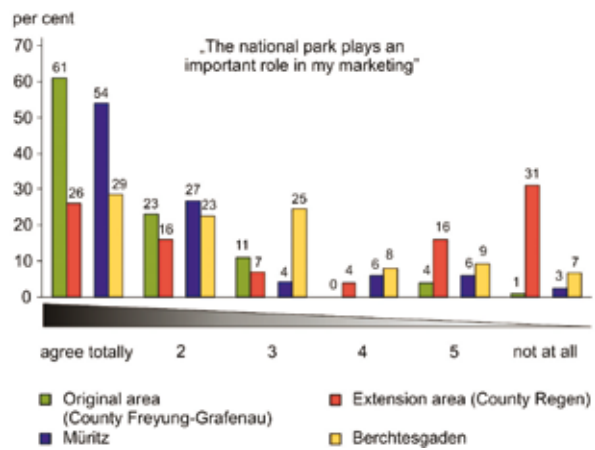


Figure 15.5: Distribution of answers to the question "The national park plays an important role in my marketing"
Source: Job et al. 2004a,b and own research 2007

a rather large communication problem in tourism marketing. This is a critique which is directed primarily at regional accommodation and gastronomy enterprises and not at the national park administration or the East Bavarian Tourism Association.

5. The regional economic impact of tourism in the Bavarian Forest National Park

Tourists in the Bavarian Forest National Park spend a daily average of EUR 38.70 per person. It is necessary, however, to distinguish between day-trippers and overnight visitors.

5.1 Day-trippers

- The mean daily expenditure of visitors with high national park affinity is around EUR 11.40 per person. Of this sum, 64% is spent on catering, 25% on retail and 11% on other services.
- The mean daily expenditure per person of other visitors is EUR 9.30, of which 69% is spent on catering, 19% on retail and 12% on other services.

The following expenditure structure (Figure 15.6) is created from the total number of day-trippers in the national park.

	Berchtesgaden National Park	Bavarian Forest National Park	Müritz National Park
Number of visitors	114,000 (1,129,000*)	350,000 (760,000*)	167,000 (390,000*)
Ø daily expenditure per person	EUR 44.27	EUR 38.70	EUR 33.80
Gross tourist spending	EUR 9.3 million**	EUR 13.5 million	EUR 5.6 million
Direct income	EUR 3.1 million	EUR 4.3 million	EUR 1.9 million
Indirect income	EUR 1.5 million	EUR 2.2 million	EUR 0.9 million
Total income	EUR 4.6 million	EUR 6.5 million	EUR 2.8 million
Income equivalent	206 persons	456 persons	261 persons
*all national park visitors			
**Different basis of calculation due to different survey methods			

Table 15.1: Summary of the economic impact of visitors with a high national park affinity
Source: Job/Metzler/Vogt 2003; Job et al. 2005; own research 2007

	Number of visitors	Daily expenditure in EUR	Gross tourist spending in million EUR
Visitors with a high national park affinity	350,000		13.5
Day-trippers	100,000	11.40	1.1
Overnight visitors	250,000	49.60	12.4
Other visitors	410,000		14.3
Day-trippers	151,000	9.30	1.4
Overnight visitors	259,000	49.60	12.9

Table 15.2: Gross tourist spending of visitors in the Bavarian Forest National Park
Source: Own research 2007

The sum that day-trippers spend in the Bavarian Forest National Park is a much lower than the daily German average of EUR 28 per person. There are a number of reasons for this difference.

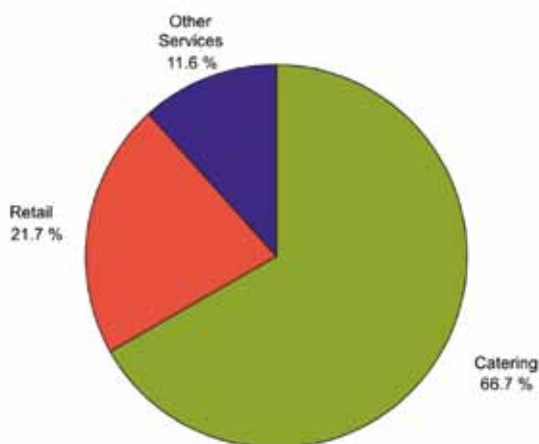


Figure 15.6: Distribution of the expenditures of day-trippers
Source: Own research 2007

Day-trippers interviewed in the national park do not just encompass classic day visitors but also a fairly large percentage of local inhabitants who spend their leisure time in the surrounding area. Naturally, the expenditure by these locals is low, because they only consume little or even nothing during their activities in the park. This fact is clearly highlighted by the high proportion of day-trippers in the national park who do not spend anything (around one-third).

It is also worth noting that the amount day-trippers spend usually depends on their leisure activity. Hiking is one of the most popular activities in national parks, but is traditionally an activity where people tend to spend less money. Different possibilities to consume also occur depending on how natural an area is: the more natural the area the less money is spent there, which is the case in most national parks. This explains the difference in expenditure behaviour compared to more urban regions, which strongly influence the German average. This information explains the comparatively low expenditure of day-trippers in the Bavarian Forest National Park. They visit the park in particular for the nature experience and not to consume.

5.2 Overnight visitors

Overnight visitors of the national park spend a daily average of EUR 49.60 per person, which is again much lower than the German average (EUR 93.30). The level of expenditure is strongly influenced by the choice of accommodation and, thus, the accommodation structure of the survey area. Again, there are several reasons that explain the lower average expenditure:

- The national park is situated in a structurally weak, rural region where cheaper accommodation dominates in comparison to cities. High-price hotels are rare.
- National park visitors tend to prefer private accommodation or holiday flats (with less than 9 beds) over hotels. The national daily expenditure level in these non-commercial “private accommodations with less than 9 beds” also lies clearly below the national daily expenditure levels in commercial accommodation and only adds up to EUR 48.30.

A differentiation of overnight visitors in visitors with a high national park affinity and other visitors does not reveal differences in the Bavarian Forest. Both groups spend EUR 49.60 per person per day. However, smaller variations can be noticed in the different economic sectors that benefit from the guests.

Among visitors with a high national park affinity, 71% of the expenditure goes to the accommodation and catering industry, 22% to the retail industry and 7% to other services.

Other visitors spend slightly more on the accommodation and catering industry (75%) and slightly less on the retail industry (18%). As above, 7% is spent on other services.

The following figure illustrates the expenditure structure of the total number of overnight visitors in Bavarian Forest National Park (Figure 15.7).

Compared to the Berchtesgaden and Müritz National Parks, the average daily expenditure of visitors in Bavarian Forest National Park lies in the middle (Table 15.1).

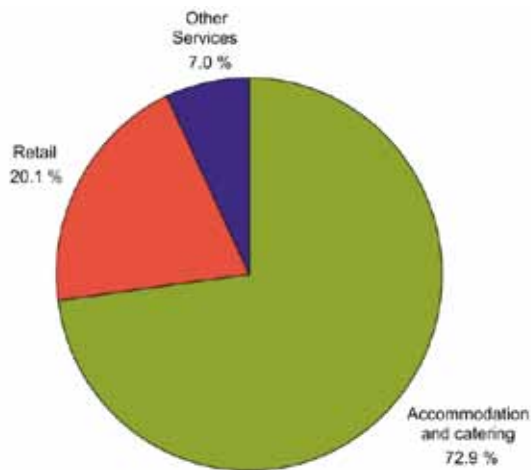


Figure 15.7: Distribution of the expenditure of overnight visitors
Source: Own research 2007

5.3 Gross tourist spending

Gross tourist spending is calculated by multiplying the daily expenditure by the number of days the visitors spend in the park. Each year, park visitors realise gross tourist spending of EUR 27.8 million. Of this, EUR 13.5 million, or almost 49%, can be traced back to visitors with a high national park affinity and EUR 14.3 million to other visitors. Differentiation between these two target groups shows the pattern in Table 15.2.

Net tourist spending is calculated by subtracting the VAT from the gross tourist spending. The total VAT of all visitors in the Bavarian Forest National Park is EUR 3.8 million. If this amount is subtracted from the gross tourist spending (EUR 27.8 million), net tourist spending of EUR 24 million remains.

5.4 Employment effects: income equivalents

Several parameters are required to calculate the income equivalent, i.e. the number of full-time job equivalents deriving from the total income captured. The average aggregate income per person can be derived from the number of inhabitants in the gateway-communities and their aggregate income and equals EUR 14,387. To calculate the income equivalent, the added value generated by the national park visitors is divided by the average aggregate income per person. Differentiating between visitors with a high national park affinity and other visitors the following results occur:

Visitors with a high national park affinity:
 EUR 6.56 million : EUR 14,387 = 456 persons
 Other visitors:
 EUR 6.95 million : EUR 14,387 = 483 persons

This shows that national park visitors generate an income equivalent of 939 persons whose income relies totally on tourism in the national park.

This figure is, however, merely a book value and in reality, it is likely that more people live at least partly from tourism. This can be attributed to the fact that those employed in tourism sometimes:

- live only partially from tourism (e.g. renting holiday flats as a sideline), and
- are not employed on a full-time basis (e.g. part-time position, seasonal employment, temporary work).

It should be made clear that tourism as a mode of employment definitely has a higher significance than can be derived from the mathematically calculated figures above.

Thus, tourism revenues generated by the Bavarian Forest National Park have a significant regional economic impact in this peripheral, rather structurally weak Bavarian region. If the income of all national park visitors is taken as being EUR 13.5 million, it is (in absolute terms) almost twice the income generated for the region from the ski resort at Mt Arber. This shows that both nature-based national park tourism and infrastructure-based forms of tourism are very important for the tourism products in the area and are not mutually exclusive within one destination.

6. The economic significance of tourism in the region

The results of the study on the regional economic impact of the national park tourism need to be interpreted correctly by examining their relation to the total economic impact of tourism in the survey area derived from the survey of the tourism and non-tourism enterprises. This economic impact is 11.1% for the counties Freyung-Grafenau and Regen and 13.2% for the more tourism orientated gateway communities. This share encompasses the added value for the accommodation and catering industry, the respective shares of businesses from the cultural, sport and leisure, manufacturing, and trade sectors and other services that directly or indirectly generate turnover from tourists or tourism enterprises. The indirect effects of investments induced by tourism in the region are also taken into consideration.

If the added value generated by tourism in the national park is compared to the total added value of tourism in the region, it becomes clear that around 10% of the added value at the gateway community level is generated by visitors with a high national park affinity and one-fifth by all national park visitors. As expected, the significance of national park tourism decreases if the added value is observed separately at the county level: between 2 and 4.5% of the added value of tourism for the entire region can be traced back to the national park.

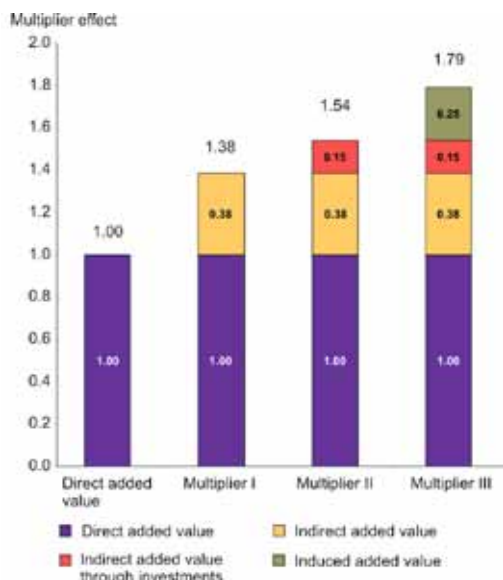


Figure 15.8: Tourism income multipliers in the counties of Freyung-Grafenau and Regen
Source: Own research 2007

It is not just the tourism industry that benefits from tourism in the region. Indirect (tourism enterprises sourcing intermediate inputs in the region, investments in the region) and induced effects (salaries and wages from tourism employees) increase the tourism added value of the region by factors between 1.38 (indirect effects only), 1.53 (taking tourism induced investments into account) and 1.79 (including the effects induced through salaries and wages) (Figure 15.8).

This means that every Euro spent in the region leads to a maximum added value of EUR 1.79 in the region. Thus, intermediate input linkages create an indirect and induced additional income of a minimum of 38 and a maximum of 79 cents for each Euro spent on tourism services. These multipliers decrease slightly within the gateway communities, due to the less diversified economy in these smaller areas.

If the number of people employed in tourism is compared with the 456 persons that are estimated to be working in tourism jobs directly connected to the national park, the following results are obtained: 3.5% of tourism employees in the counties of Regen and Freyung-Grafenau are dependent on the tourism created by the national park.

When observed at the gateway community level, this figure rises to 13.5%. If only the number of people working directly in accommodation and catering is taken into consideration, the figure increases to 14.2%. This proves that national park tourism is an important employment factor for the region. It is also worth noting that more than 200 persons are employed by the national park administration.

7. Transboundary destination - Šumava National Park and Bavarian Forest National Park?

There is still a long way to go before a common transboundary tourism destination can be created across the two neighbouring national parks, Šumava (Czech Republic) and the Bavarian Forest. Cooperation between the tourism industries is currently not being used to its full potential and is also not being accepted by tourists.

Šumava National Park is a popular and attractive holiday destination with more than one million visitors per year. Like in the Bavarian Forest National Park, a large number of visitors, particularly domestic ones, visit Šumava more than once. However, the full potential of Czech visitors for the Bavarian Forest National Park has not yet been utilised: more than half of the Šumava visitors have never been to the Bavarian Forest.

The potential of this target group can be seen in their answers to the question whether they would be interested in visiting the Bavarian Forest. Just over half of the tourists in Šumava said that they would definitely be interested and almost a quarter said that they might be interested in visiting the national park. 90% of the tourists who had already visited the national park said that they would definitely return to the Bavarian Forest. In order to attract potential first time visitors to the Bavarian Forest National Park, better networking in tourism is required (also linguistically) and a better network of paths and transport connections between both areas is needed. The legal requirements were already established when the Czech Republic was admitted into the Schengen Agreement in 2008. These should provide the impetus for change in the direction indicated above.

16. Summary and Conclusions — Benefits of Transboundary Cooperation in Nature Conservation

Maja Vasiljević¹

Introduction

Initiating transboundary² cooperation in nature conservation between two or more countries is a matter of choice, an independent decision of relevant parties to

One should not undermine the fact that economic security and sustainability is one of the key drivers of today's world. Protected area managers are often faced with problems of funding and its sustainability. There are many examples worldwide where, because of transboundary conservation, protected areas have generated additional funding either through common projects or through



© Maja Vasiljević

work jointly towards achieving certain results. Protected area practitioners and experts involved in transboundary work often emphasize a range of difficulties that can hinder cross-border action and that can be extremely complex and challenging to overcome. Indeed, it is easier to work under a well-known and already established national protected area management model in one country and avoid engagement with different organisational structures of an adjacent country, different policies, or different culture. Clearly, if concrete and real benefits of transboundary cooperation are not articulated in an understandable way to all parties involved, cooperation will probably not be successful.

established funds sponsored by diverse partners. In the European context, EU funding schemes³ call for transboundary cooperation, and thus encourage countries to deepen their work together for the benefit of nature and the environment. Higher profiling of protected areas through regional cooperation in adjoining countries often facilitates international designations (such as UNESCO Biosphere Reserves⁴) and attracts the attention of donors (Mittermeier et al. 2005; Hamilton et al. 1996). This in turn can increase and ensure longevity of the enthusiasm of protected area staff to embark on new joint cross-border work. The economic factor of working in a transboundary

1 Chair, IUCN WCPA Transboundary Conservation Specialist Group, Croatia.

2 In this paper, 'transboundary' refers only to areas straddling one or more countries, excluding sub-national units.

3 E.g. Instrument for pre-accession assistance (IPA) of the European Commission has a specific component on cross-border cooperation.

4 For benefits generated by transboundary Biosphere Reserves see case studies: East Carpathians; Krkonoše/Karkonosze.

way provides further incentives for strengthening the 'core business' of transboundary conservation initiatives, which is conservation of nature with associated ecosystem services and cultural values.

Transboundary conservation areas (TBCA)⁵ are increasingly important in protecting and maintaining complex ecosystems on a larger scale than can be accomplished in a single protected area. Although complex, if combined between countries, conservation action planning and efforts can bring many benefits.

TBCAs enable communication between protected area staff, officials of higher political authorities and local populations of two or more countries. Nowadays, when intercultural dialogue, tolerance between people and international peace are critical necessities, transboundary cooperation in nature conservation positions itself as an important approach that puts these elements into practice. Indeed, transboundary conservation can even serve as a means of resolving political and military conflicts, as was the case between Ecuador and Peru, where the 1998 peace agreement listed the establishment of a conservation corridor named Cordillera del Condor as a term (Mittermeier et al. 2006).

This paper will note some of the key challenges and difficulties that relevant parties encounter when attempting to initiate and implement transboundary conservation. It will also review the most common benefits generated by transboundary work in nature, some of which have been emphasized in previous chapters referring to transboundary initiatives in Europe.

Challenges of transboundary conservation

In terms of management, the main characteristic of transboundary conservation is cooperation, which can span from non-existent, to communication, consultation, collaboration or coordination of planning, to the highest level - full cooperation (Zbicz 1999). Thus, the minimal level required for an area to be considered a TBCA is the existence of some form of communication and information sharing between protected areas across borders. Coordinating cooperation at any of the above mentioned levels can be more or less of a challenge, as many obstacles can stand in the way. In all levels of co-management⁶ (often referred to as cooperative management) the sharing of certain

responsibilities is envisaged, to reach the full potential in joint decision-making and joint management. This is not an easy goal to accomplish.

Integrating conservation of two or more protected areas across an international boundary implies gaining the necessary political support and/or support of protected area managers, who are best positioned to achieve conservation goals on the ground. Political indifference and lack of commitment can impede the establishment of a transboundary initiative. However, even with political will on all sides and existing high-level agreements or joint statements cannot guarantee success of a TBCA. There are many elements, including political, social, cultural, economic and legal that influence the functioning of a TBCA. Differences in laws and policies may reduce TBCA effectiveness, implying the need for harmonization of norms of the most critical issues such as immigration and customs, or enforcement of poaching prohibition (Tamburelli 2007). Hamilton et al. (1996) note several of the most common challenges in establishing transboundary initiatives: cultural and religious differences, language issues, different levels of economic development, slower implementation than 'ordinary' conservation measures, inaccessible terrain, etc. Protected areas in adjacent countries might have unequal resources for conservation measures, which can cause tensions between the parks (Sandwith and Besançon 2010). Conservation across borders can be more expensive to coordinate and necessitates increased coordination effort. Differences in the levels of professional standards in protected areas can also be a limiting factor and can demotivate staff to engage in transboundary cooperation. Capacities are a frequent constraint and national structures, if weak, might not be able to create successful TBCA.

Ecological goals need to be matched with the expectations of the local population living in and around a TBCA. Lack of communication and appropriate leadership might result in an unsupportive attitude of the local communities for the initiative. Adding to non-efficient communication and the range of difficulties mentioned above that can hamper transboundary conservation initiatives, Niewiadomski (Chapter 7) further mentions challenges such as intangible goals and areas of cooperation, insufficient recognition of mutual benefits, lack of understanding of different operational conditions, and lack of a spirit of cooperation among partners.

Challenges are manifold and the 'list' can be expanded even further. However, countries and protected area managers are increasingly recognizing the significance and potential of transboundary conservation initiatives, and their implementation has never been as extensive as today.

⁵ For the purpose of this paper, transboundary conservation areas/initiatives refer to all types of transboundary conservation practice, as suggested by IUCN WCPA (Sandwith et al. 2006): transboundary protected areas, parks for peace, transboundary conservation and development areas, and transboundary migratory corridors.

⁶ Defined by IUCN (1997) as "a partnership in which government agencies, local communities and resource users, non-governmental organizations and other stakeholders negotiate, as appropriate to each context, the authority and responsibility for the management of a specific area or set of resources".

Key benefits of transboundary cooperation in conservation of nature

"We see protected areas as providers of benefits beyond boundaries – beyond their boundaries on a map, beyond the boundaries of nation states, across societies, genders and generations." (IUCN 2003). This message was released by some 3,000 participants of the IUCN's Vth World Parks Congress held in Durban, South Africa in 2003. This was a period when the role of protected areas in achieving social and economic, alongside biodiversity, objectives and development began to receive acknowledgement and be promoted. This paradigm is particularly relevant for transboundary conservation areas as a suitable model of nature conservation practice that combines the accomplishment of social, economic, and political objectives, including security and promotion of peace. Transboundary conservation initiatives to work across international boundaries and involve different levels, sectors and stakeholders, are well positioned to integrate these objectives and offer multiple benefits. TBCAs, however, do not always offer a sure success mechanism, and their realisation is often lengthy, though they do create opportunities for the establishment of cooperation that can yield various, interrelated benefits. The following sections provide an overview of the most common benefits arising from transboundary initiatives, many of which have been emphasized in the case studies in previous chapters.

Ecological benefits

TBCAs are generally larger in size than single protected areas and usually entail connections in habitats across borders. Having one large protected area is considered more valuable for biodiversity preservation than several small ones, as conservation biology and island biogeography⁷ have shown us. Creating connectivity, especially across international boundaries and protecting and maintaining it, is not an easy task to accomplish, having in mind all the potential threats to habitats, the tendency to fragment nature and political factors. By connecting nature and landscapes, TBCAs support species migrations, especially for animals with large ranges. Undisturbed species migration allows for greater genetic exchange and less isolation, and it also has social significance in terms of human/animal conflicts in preventing species induced habitat destruction (McCallum 2011). TBCAs can reduce the risk of biodiversity loss and maintain healthy populations of species through joint cross-border and coordinated measures (Hamilton et al. 1996). Moreover, as Hamilton (2008) notes, large protected areas such as TBCAs

that conserve carbon rich habitats have the possibility of increasing the ecosystem's resilience to adjust to climate change.

Cooperation across political borders leads to a range of management advantages resulting in more effective biodiversity conservation. Management of invasive species that negatively affect native species, measures of insect or disease control, poaching and illegal trade of species, have better results when they are coordinated jointly across borders (Hamilton et al. 1996). However, open borders without effective enforcement of poaching prohibition are a threat that can enable increased levels of poaching (or illegal trade of species). Joint restoration programmes, reintroduction of species and wildfire management are also facilitated by transboundary cooperation.

Combining efforts between countries can reduce expenses by potentially sharing costly equipment (e.g. aircraft patrolling) and infrastructure, and also generate benefits in terms of human resources by organizing joint patrols and shared search and rescue activities in border areas. Joint research programmes can eliminate duplication, enhance chances for funding, increase the skills pool and foster dynamic and more creative problem solving, and can lead to standardisation of monitoring methods (Mittermeier et al. 2005, Hamilton et al. 1996). Generally, sharing of experiences in conservation management can result in improvements of the applied methods and implementation of good practice. Incidentally, such information sharing also enables better social relations and builds confidence among partners, which is extremely important for good functioning and prosperity of cooperation.

One of the most important ecological benefits is when parties manage to develop and successfully implement harmonized conservation strategies. This is not possible without identification of common objectives, careful conservation action planning, and most of all, a mutually agreed vision for a specific area. The process leading to harmonisation of conservation actions can be very lengthy, dynamic, complex, and difficult, and parties that manage to reach that 'point' and maintain implementation of the joint strategy indeed run a successful transboundary initiative.

Political benefits

The first transboundary conservation initiative dates back to 1924 when the Governments of Poland and Czechoslovakia (now Czech Republic) signed an annex to the Krakow Protocol which provided for establishment of a transboundary protected area. Nonetheless, although

⁷ A theory developed by MacArthur and Wilson in 1967 that predicts the number of species in 'islands', i.e. habitats surrounded by unsuitable areas for species; applied in conservation biology with the assumption that one large protected area can hold more species than several small ones. For an example of this theory see: www.nps.gov/archive/glac/resources/bio4.htm

the first in Europe (established in 1932), this was not the first transboundary protected area worldwide. A few months earlier in 1932, Canada and the USA designated the Waterton-Glacier International Peace Park, providing an example of transboundary cooperation for future cross-border initiatives. This particular site is often mentioned in the literature as an example of a transboundary protected area in which the concerned parties celebrated historically good relations and decided to share the commitment for joint heritage and natural resources. That is not always the case, as transboundary initiatives are often initiated in politically sensitive areas facing either past armed conflict or current hostilities. In the latter case, TBCAs are used as a basis for finding common objectives to resolve conflicts, as nature conservation is often considered neutral ground.

The European Greenbelt initiative is an example of cooperation in nature conservation rebuilt after political strife. Although conservationists tried to work together across borders in some countries, the real uplift in communication and cooperation started after the fall of the Iron Curtain. As mentioned earlier, Ecuador and Peru incorporated cooperation in nature conservation when signing a peace agreement. Recent literature shows more and more examples of transboundary initiatives (usually Parks for Peace) that contribute to peace building and security.⁸ Politically, transboundary conservation initiatives offer the possibility for regional stability, as is the case in the countries of South-Eastern Europe involved in the Dinaric Arc Initiative.⁹ *“A major contribution can be made to international co-operation, regional peace and stability by the creation of transfrontier conservation areas which promote biodiversity conservation, sustainable development and management of natural and cultural resources”* (IUCN and Peace Parks Foundation 1997).

Involvement of governments (e.g. through the signing of bilateral or multilateral treaties for certain TBCAs) or high-level government authorities such as ministries (e.g. through memoranda of understanding) is commonly considered a valuable addition to cooperation across borders in a certain site. Such high-level agreements and generally well established international political relations can start and/or advance cooperation on the ground. However, they are not always sufficient and have no particular meaning for what is happening in the TBCA. Moreover, upper government’s involvement may even lead to exertion of strong influence and control that is not in the best interest of local levels (van der Linde et al. 2001). This

is why cooperation at the local level between protected area agencies/managers and the involvement of local communities and the civil society can lead to enduring success of the initiative. Often managers establish informal contacts and cooperation addressing certain management aspects of the area, or offer representation at each others’ management boards or similar. All of this is relevant for the building of trust and confidence between relevant parties.

Nevertheless, major and most critical decisions usually involve upper governments, which is why political will, long-term commitment, and good governance are crucial for a successful TBCA.

Social benefits

TBCAs involve politically constructed boundaries that have, in many cases, divided communities and separated families. Good cooperation across borders can facilitate easier human circulation through ‘softer’ customs and immigration regulations, and can reunite families. Very often, TBCAs are places of social events where informal gatherings occur, friendships are built, protected area staff games organized, local agricultural or other products sold and promoted, and the like. These events are important for getting acquainted with the adjacent country’s culture, history and language, and ultimately for raising enthusiasm for cooperation. Opportunities for training rangers and raising protected area staff morale are strengthened in transboundary initiatives (Hamilton et al. 1996).

Protected areas are today promoted as ‘parks with people’ and thus any protected area, including transboundary, supports participatory approaches in planning and management (including decision-making). It also supports local communities in gaining benefits from protected area management and environmental services the area provides, while keeping in mind principles of sustainability and ecological balance. Interests—ecological, social, cultural, economic, political, and institutional—can vary and may be conflicting. What makes TBCAs distinctive from other protected areas is that parties involved in TBCAs seek common objectives not only across sectors and involving a variety of stakeholders, but also across international boundaries to include the entire relevant ecosystem. Naturally, cooperation across borders increases the complexity of stakeholders, problematic issues and potential solutions. Communication across sectors (e.g. with border police, farmers, tourism companies) can lead to many positive results for nature conservation and local development. Conflicts over natural resources can be addressed effectively and facilitated through transboundary approaches (Hamilton et al. 1996).

8 For example, see: Ali, S. H. (2007) *Peace Parks. Conservation and Conflict Resolution*, The MIT Press, Cambridge, Massachusetts, London, England; or: Braack, L., Sandwith, T., Peddle, D., Petermann, T. (2006) *Security Considerations in the Planning and Management of Transboundary Conservation Areas*, IUCN, Gland, Switzerland and Cambridge, UK.

9 See Chapter 4 in this publication.

In terms of tourism, open borders in TBCA and joint presentation as a 'single' unit with common signage, bilingual (or multilingual) information panels and promotional materials, and joint information centres create a 'special' perception of the area. Not only can tourists experience two or more countries during one visit, but they also obtain a positive view of the area presented as common heritage for which the countries are sharing responsibility. Almost all the case studies presented in the preceding chapters emphasize strong cooperation in promotional activities.

Economic incentive for the achievement of ecological, social and political benefits

In many cases worldwide, border areas are disadvantaged zones in an economic sense due to their remoteness (and control) from central government, insufficiently developed infrastructure for nature-based tourism, political hostility in relation to neighbouring countries, or other reasons. TBCAs offer the potential for economic development of border areas, especially through the growth of tourism. Nature-based tourism represents approximately 20% of all international travel globally, and is growing at a much faster rate than the general tourism sector (Mittermeier et al. 2006). It offers great potential for both the country and local communities, but only if its development is carefully planned and implemented.

Successful cooperation between countries in TBCAs, joint promotion of the site and presentation as 'one site' is attractive not only to tourists, but also to donors. TBCAs cannot depend on external funding for a long time. Frequently, large international donors invest significant funds into certain projects and when they terminate, the situation reverts to how it was prior to receipt of the donor money. If parties involved in the TBCA do not feel ownership, and see the need for and the benefits of the process, the TBCA is not likely to be successful. Creation of special joint funds or cooperative budgets, funded by the governments and/or the private sector or any other interested donor, is one possibility to ensure financial sustainability of the site. The money raised by the fund can then be used for joint research projects, development of maps, staff training, joint workshops, etc. Sharing of generated revenues is also important (e.g. equal distribution of entrance fees by involved cross-border parties). It is necessary to integrate staff time spent on enhancement of the TBCA in regular management planning mechanisms/budgets of the site to ensure its good functioning.

Conclusions

Transboundary cooperation in nature conservation offers plenty of possibilities. Cooperation is generally a challenge

and thus goodwill has to exist along with identified areas of common interest (e.g. research, biodiversity monitoring, visitor management, etc). Experience has shown that trust between the partners concerned, efficient leadership with dedicated staff and enthusiastic players lead to the success of transboundary initiatives. TBCAs function at different levels and they have to be well integrated to ensure the benefits are justly dispersed. Whether generating social, political or any other advantages, the bottom line is that TBCAs are about the conservation of nature and biodiversity. Of course, benefits other than ecological benefits should not be neglected or underestimated, as we cannot manage protected areas without the involvement of local people or without benefits for people. Protected areas are not isolated islands but need to be integrated into the broader ecosystems and regional and international systems. Diplomatic relations between countries can help enhance the initiative. TBCAs, as large contiguous habitats that protect biodiversity while also facilitating dialogue between the staff of the concerned sites and local communities, creating economic opportunities, encouraging good political relations between neighbouring countries, and contributing to peace are a valuable asset to global efforts to ensure the conservation of nature and protection of its services for future generations.



© Maja Vasiljević

References

- Adams, J. (2005). Analyse Your Company Using SWOTs, *Supply House Times* 48(7): 26-28.
- Ahokumpu, A. and Šolar, M. (2009). Verification Report for the Bavarian Forest National Park, Germany & Šumava National Park, Czech Republic on the application for the EUROPARC certificate: Transboundary Parks – Following Nature's Design. *Ms. Depon In: Grafenau*.
- Balkan Lynx Strategic Group. (2008). Strategy for the Conservation of the Balkan Lynx in Macedonia and Albania. Results from the Strategic Planning Workshop for the Conservation of the Balkan Lynx, Peshtani, Macedonia, 3-4 June 2008 (Draft).
- Bego, F. and Koni, M. (1999). Biodiversity Strategy and Action Plan. National Environmental Agency (NEA) & Global Environmental Facility (GEF), Tirana.
- Bogdanović, S. (2007). Prespa Park Coordination Committee, Technical assessment report, Novi Sad, Serbia.
- Breymeyer, A. and Noble, R. (1996). *Biodiversity Conservation in Transboundary Protected Areas*, National Research Council, National Academy Press, Washington, DC, USA.
- Broadhead, L.A. (2002). *International Environmental Politics; The Limits of Green Diplomacy*. Lynne Reinner Publishers, USA, 2002.
- Brunner, R. (1996). Parks for Life: Transboundary Protected Areas in Europe. Final Report, IUCN (IUCN/WCPA Parks for Life Coordination Office), Ljubljana, Slovenia.
- Brunner, R. (2000). Transfrontier Cooperation in Europe. In: Proceedings of the EUROPARC Federation 1999 General Assembly and Conference. Grafenau.
- CenTouris (Eds.) (2008). Befragung tschechischer Urlaubs- und Tagesgäste im Nationalpark Šumava 2007, unveröffentlichter Endbericht. Passau.
- Conference proceedings. (1997). *Parks for Peace*. International Conference on Transboundary Protected Areas as a Vehicle for International Co-operation, 16-18 September 1997, Somerset West, South Africa.
- Convention on Biological Diversity. (2004). *Programme of Work on Protected Areas*, <<http://www.cbd.int>>. Accessed on 14 January 2011.
- Dudley, N. (Ed.) (2008). *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland: IUCN.
- Du Nann, W.D. (1997). Flowering of Green Diplomacy. Peace and Conflict: *Journal of Peace Psychology*, 3(2): 213–215.
- ECBC. (1994). The Foundation for the Eastern Carpathian Biodiversity Conservation - Deed of Foundation.
- Engel, J.S. and del-Palacio, I. (2009). Global Networks of Clusters of Innovation: Accelerating the Innovation Process. *Business Horizons* (2009) 52, 493–503.
- European Environment Agency. (2003). Europe's Environment: The Third Assessment. Environmental Assessment Report No 10. Luxembourg: Office for Official Publications of the European Communities, p. 231.
- Hannemann, T. and Job, H. (2003). Destination „Deutsche Nationalparke“ als touristische Marke. *Tourism Review* 58(2): 6–17.
- Harrer, B. (2004). *Wintertourismus in Bayern und die Wertschöpfung durch die Bergbahnen – am Beispiel von vier Orten*. In: Maschke, J. (Eds.). Jahrbuch für Fremdenverkehr. München, Germany: dwif-Consulting GmbH, pp. 128–143
- Helesic, J. and Kubicek, F. (Ed.) (1999). Hydrobiology of the Dyje River in the National Park Podyjí, Czech Republic. *Folia Biologica* 102: 138 p.
- Herzig, A. and Dokulil, M. (2001). Neusiedler See – Ein Steppensee in Europa, In, Dokulil, M., Hamm, A. and Kohl, J-G. (Eds.), *Ökologie und Schutz von Seen*, Facultas UTB.
- Fersch, A. and Lang, A. (2006). Between the Alps and the Puszta: A Trans-boundary National Park Shared by Hungary and Austria, In, Terry, A., Ullrich, K. and Riecken U. (Eds.), *The Green Belt of Europe: From Vision to Reality*, Gland, Switzerland: IUCN.
- Flousek, J. and Gramsz, B. (1999). *Atlas of breeding birds in the Krkonoše Mts. (Czech Republic/Poland) in 1991–1994*. Vrchlabí: Správa Krkonošského národního parku, 424 pp.
- Flousek, J. and Plamínek, J. (2007). Vize Krkonoš. In: Flousek, J., Hartmanová, O., Štursa, J. and Potocki, J. (Eds.) *Krkonoše - Příroda, Historie, Život*. p. 815–816. Prague: Baset.
- Hamilton, L. (2008). How Can Biosphere Reserve Managers Address the Impacts of Climate Change and Global Warming on Biodiversity? An Overview of Some Global Efforts. A paper presented at the conference Mauvais temps pour la nature? Schlechtes wetter für die natur? Fischbach bei Dahm, Germany, 21–22 October 2008.
- Hamilton, L.S., Mackay, J.C., Worboys, G.L., Jones, R.A. and Manson, G.B. (1996). *Transborder Protected Area Cooperation*, IUCN/Australian Alps National Parks.
- Hußlein, M. and Kiener, H. (Eds.) (2007). *Natura 2000 – Europas wildes Herz / Divoké Srdce Evropy*, bilingual brochure. Grafenau/Vimperk.
- IUCN. (1997). Resolutions and Recommendations, World Conservation Congress, Montreal, Canada, 13–23 October 1996.
- IUCN. (2003). *The Durban Accord*. Vth IUCN World Parks Congress, Durban, South Africa, 12–13 September 2003.
- IUCN and Peace Parks Foundation. (1997). Conference proceedings. Parks for Peace. International Conference on Transboundary Protected Areas as a Vehicle for International Co-operation, 16-18 September 1997, Somerset West, South Africa.
- IUCN/WCPA. (1999). Parks for Life. Transboundary Protected Areas in Europe. Ljubljana.
- IUCN/WCPA. (2010). *Next Steps: Convention on Biological Diversity Programme of Work on Protected Areas*. Gland, Switzerland.
- Ivanovski, A. (2010). Trilateral Ecosystem Management Cooperation Driving Mechanism in the Lakes Prespa Basin, Balwois International Conference on Water and Information Systems, Ohrid, Macedonia.
- Jardin, M., Fall, J., and Thiry, E. (2003). *Five Transboundary Biosphere Reserves in Europe*. Biosphere Reserves Technical Notes. UNESCO, Paris.
- Jeník, J. (2000). Geographical and Ecological Identity of the Giant Mountains. *Opera Conortica* 37: 12–19.
- Job, H. (Ed.) (2008). *Die Destination Nationalpark Bayerischer Wald als regionaler Wirtschaftsfaktor*. Wissenschaftliche Reihe, Sonderheft. Grafenau, Germany: Nationalpark Bayerischer Wald.

- Job, H., Harrer, B., Metzler, D. and Hajizadeh-Alamdary, D. (2005). *Ökonomische Effekte von Großschutzgebieten*. BfN-Skripten (135) Selbstverlag, Bonn-Bad Godesberg.
- Job, H., Metzler, D., Müller, M. and Mayer, M. (2004a). The contribution of small and medium tourism enterprises to regional economic development – a comparison between two German national park regions. In: Keller, P. and Bieger, T. (Eds.). *The future of small and medium sized enterprises in tourism*. 54th Congress 2004 of the International Association of Scientific Experts in Tourism, pp. 55–75. St. Gallen.
- Job, H., Metzler, D., Hajizadeh-Alamdary, D., Rodrian, P. and Woltering, M. (2004b). Regional Economic Impacts of Sustainable Tourism in Protected Areas. In: Rulle, M. (Ed.). *Recent Trends in Tourism – the Baltic and the World*, Greifswalder Beiträge zur Regional-, Freizeit- und Tourismusforschung 15, p. 141–156. Greifswald.
- Job, H., Metzler, D. and Vogt, L. (2003). Inwertsetzung alpiner Nationalparks. Eine regionalwirtschaftliche Analyse des Tourismus im Alpenpark Berchtesgaden. *Münchner Studien zur Sozial- und Wirtschaftsgeographie* 43. Kallmünz.
- Karivalo, L. and Butorin, A. (2006). The Fennoscandian Green Belt. In: Terry, A., Ullrich, K. and Riecken, U. (Eds.). *The Green Belt of Europe: From Vision to Reality*. IUCN, Gland, Switzerland and Cambridge, UK.
- Kavrakova, V., Dimova, D., Dimitrov, M., Tsonev, R., Belev, T. and Rakovska, K. (2009). Manual for identification of habitats of European importance in Bulgaria. WWF-DCP, Green Balkans, Sofia.
- Kiener, H. and Křenová, Z. (2009). Europe's Wild Heart and Lecture after Kyrill. In: Husslein, M., Kiener, H., Křenová, Z. and Šolar, M. (Eds.) *The appropriateness of non-intervention management for protected areas and Natura 2000 sites*. Srni Conference Report. Grafenau/Vimperk 2009. pp 24-27.
- Kirchberger, K. and Karpati, L. (2006). The Development of Cooperation and Land Use around Lake Neusiedl/Fertő, In: Terry, A., Ullrich, K. and Riecken, U. (Eds.), *The Green Belt of Europe: From Vision to Reality*, Gland, Switzerland: IUCN, supra note 6, pp. 101–109.
- Kohler, B. (2004). The Development of a Joint Education Strategy for the Neusiedler See Seewinkel/Fertő-Hanság Region – Introduction and Background. Proceedings of Management of Transboundary Ramsar Sites – Changes and Challenges Conference, Illmitz, Austria, 18–19 November 2004, WWF Austria.
- Kortelainen, J. (2010). The European Green Belt as a Form of Environmental Governance. In: KRIHS Special Report 2010, Korean Research Institute for Human Settlements, Volume 15.
- Křenová, Z. and Kiener, H. (2009). Společné jádrové území Národních parků Šumava a Bavorský les – Divoké srdce Evropy / Gemeinsamer Kernbereich der Nationalparke Šumava und Bayerischer Wald – Europas wildes Herz (bilingual common guidelines). Grafenau/Vimperk.
- Lombard, A.T., Cowling, R.M., Vlok, J.H.J. and Fabricius, C. (2010). Designing Conservation Corridors in Production Landscapes: Assessment Methods, Implementation Issues, and Lessons Learnt. *Ecology & Society* 15(3): 7. <http://www.ecologyandsociety.org/vol15/iss3/art7/>.
- Lusigi, W. and Norris, R. (1998). *The Draft Site Visit Report*, World Bank, Internal document, Washington, D.C., USA.
- Marin, S., Rogev, A., Christov, I. and Sarov, M. (1998). New observations and nesting of the Black vulture (*Aegypius monachus*) in Bulgaria. In: Tewes, E., Sanchez, J. J., Heredia, B., & Bijleveld van Lexmond, M. (Eds.). *The Black Vulture in South Eastern Europe*, BVCF/FZG, Palma de Mallorca.
- McCallum, J. (2011). *Ecological Case for Transboundary Conservation*, <<http://www.tbpa.net>>.
- MES. (2006). Case Study Jablanica-Mali e Shebenikut. Final Report of the project "Balkan Green Belt as Ecological Corridor for Wolf, Bear and Lynx".
- Metsähallitus Natural Heritage Service Lapland, Sami Museum and Northern Lapland Nature Centre Siida, Office of the Finnmark County Governor, Pasvik State Nature Reserve (Pasvik Zapovednik). (2008). Action Plan for Nature Protection and Sustainable Nature Tourism in Pasvik-Inari Area, Part A, Annex 5.
- Meyer, T., Kiener, H. and Křenová, Z. (2009). Wild Heart of Europe. *International Journal of Wilderness* 15(3): 33–40.
- Michev, T. and Petrov, T. (1985). Imperial eagle, *Aquila heliaca* Savigny, 1809. in Red Data Book of Bulgaria, vol. 2, BAS, Sofia.
- Ministry of Environment and Physical Planning of the Republic of Macedonia. (2003). Biodiversity and Action Plan of the Republic of Macedonia.
- Ministry of Environment Republic of Korea. (2005). Green Korea 2005. Towards the Harmonization of Human and the Nature. International Affairs Office of the Ministry of Environment, Seoul, Republic of Korea.
- Ministry of the Environment of the Republic of Finland, Ministry of the Environment of the Kingdom of Norway and Ministry of Natural Resources and Environment of the Russian Federation. (2010). Memorandum of Understanding between the Ministry of the Environment of the Republic of Finland, the Ministry of the Environment of the Kingdom of Norway and the Ministry of Natural Resources and Environment of the Russian Federation on cooperation on the development of the Green Belt of Fennoscandia.
- Mittermeier, R.A., Kormos, C.F., Mittermeier, C.G., Robles Gil, P., Sandwith, T. and Besançon, C. (2005). *Transboundary Conservation. A New Vision for Protected Areas*. CEMEX-Agrupación Sierra Madre-Conservation International, Mexico.
- Müller, J., Scherzinger, W. and Moning, C. (2007). European Ural Owl workshop. National Park Proceedings, Issue 8. Grafenau.
- Nankinov, D., Dutsov, Al., Nikolov, B., Borisov, B., Stoyanov, G., Gradev, G., Georgiev, D., Popov, D., Domuschiev, D., Kirov, D., Tilova, E., Nikolov, I., Ivanov, I., Dichev, K., Popov, K., Karaivanov, N., Todorov, N., Shurulinkov, P., Stanchev, R., Aleksov, R., Tzonev, R., Ivanov, S., Marin, S., Staikov, S., Nikolov, S., Dalakchieva, S. and Nikolov, Hr. (2004). *Breeding totals of the avifauna in Bulgaria*. Green Balkans, Plovdiv.
- Natur & Land. (1993). *Schritt für Schritt zum Nationalpark Neusiedler See – Seewinkel*, Eine Festschrift des ÖNB zur Gründung des Nationalparkes Neusiedler See – Seewinkel; Natur & Land, 79. Jahrgang, Sonderheft zu 3-4/1993, Salzburg.
- Niewiadomski, Z. (2005). The first trilateral UNESCO-MaB Biosphere Reserve the East Carpathians In, KFEM, *Conservation and Sustainable Management of the DMZ and Surrounding Areas - 2005 Ecology International Symposium*. Korean Federation for Environmental Movements, Seoul, Republic of Korea, pp. 157 - 176.

- Niewiadomski, Z. (2006a). The first trilateral UNESCO-MaB Biosphere Reserve the East Carpathians, In: Stein, R., Heil, P. and Tuček, L. (Eds.) *Proceedings of the 2004 International Conference and Expert Workshop of Transboundary Biosphere Reserves: Following-up on Seville+5*, Naturpark Pfälzerwald/Parc Régional des Vosges du Nord, Lambrecht, Germany / La Petite-Pierre, France, pp. 26–35.
- Niewiadomski, Z. (2006b). Sustainable financing of Biosphere Reserves, In: EUROMAB Austria. Meeting of the EuroMAB Biosphere Reserve Coordinators and Managers. Austrian Commission for UNESCO, Wien, Austria, pp. 92–94.
- Nikolov, H., Gruev, B., Delipavlov, D., Gramatikov, D., Daraktchiev, A., Stojanov, A., Ivanova, T., Petrov, B. and Tzvetkov, P. (1998). Report of the Green Balkans Movement on the Bulgarian National Biological Diversity Conservation Strategy in Bulgaria's Biological Diversity: Conservation Status and Needs Assessment, Volumes I and II. Curt Meine, ed. Washington, D. C.: Biodiversity Support Program.
- Petrikova, H. and Raj, A. (2006). The Krkonoše/Karkonosze TBR (Czech Republic/Poland). In: Stein R., Heil P., Tuček, L. (Eds.) *Proceedings of the 2004 International Conference and Expert Workshop of Transboundary Biosphere Reserves: Following-up on Seville +5*, Naturpark Pfälzerwald/Parc Régional des Vosges du Nord, Lambrecht/La Petite-Pierre.
- Petrikova, H. (1990). The Cooperation between the Czech and Polish National Parks in the Krkonoše Mts. In: Valdrè, G. (Ed.) *Conference Proceedings: National parks on Borderlines, East-West Co-operation*, FNNPE-IUCN-CEDIP, Polinuro, Italy, p. 21–24.
- Petrikova, H. (2003). The Krkonoše/Karkonosze Biosphere Reserve: Experience and Challenges in the Changing Region. In: Parviainen, J., Lovén, L. and Pitkanen, M. (Eds.) *Augmenta: Koli Border Forum – Seminar 2003*, Koli National Park, p. 152–158.
- Petrov, B. (2004). The herpetofauna (*Amphibia* and *Reptilia*) of the Eastern Rhodopes (Bulgaria and Greece). In Beron P. and Popov A. (Eds.) *Biodiversity of Bulgaria. 2. Biodiversity of Eastern Rhodopes (Bulgaria and Greece)*. Pensoft & Nat. Mus. Natur. Hist., Sofia.
- Phillips, A. (2003). A New Paradigm for Protected Areas. *World Conservation. The IUCN Bulletin* 2: 6–7. IUCN, Gland, Switzerland.
- Plachter, H. (2005). The World Heritage Convention of UNESCO - A Flagship of the Global Nature Conservation Strategy, UNU Global Seminar Series, Inaugural Shimane-Yamaguchi Session, Yamaguchi, Japan.
- Popov, V. and Sedefchev, A. (2003). *Mammals in Bulgaria*. Vitosha Nature Park Directorate, Sofia.
- PPNEA. (2006). Biodiversity values and conservation of Jablanica-Shebeniku. Final Report of the project "Balkan Green Belt as Ecological Corridor for Wolf, Bear and Lynx".
- Roetzel, R. (2005). Geologische Karte der Nationalparks Thayatal und Podyjí. *Geologische Bundesanstalt*, 92p.
- Sandwith, T. and Besançon, C. (2010). Making Peace: Protected Areas Contributing to Conflict Resolution. In: Stolton, S. and Dudley, N. (Eds.), *Arguments for Protection. Multiple benefits for conservation and use*. UK and USA: Earthscan.
- Sandwith, T., Lockwood, M. and Gurung, C. (2006). Linking the Landscape. In: Lockwood, M., Worboys, G. and Kothari, A. (Eds.) *Managing Protected Areas: A Global Guide*, UK and USA: Earthscan.
- Sandwith, T., Shine, C., Hamilton, L. and Sheppard, D. (2001). *Transboundary Protected Areas for Peace and Co-operation*. IUCN, Gland, Switzerland and Cambridge, UK.
- Society for the Protection of Prespa (SPP), WWF Greece, Protection and Preservation of Natural Environment in Albania (PPNEA) and Macedonian Alliance for Prespa (MAP). (2002). Strategic Action Plan (SAP) for the Sustainable Development of the Prespa Park.
- Štursa, J., Kwiatkowski, P., Harčaryk, J., Zahradníková, J. and Krahulec, F. (2009). Black and Red List of Vascular Plants of the Krkonoše/Karkonosze Mts. (Western Sudetes CZ, PL). *Opera Corcontica* 46: 67–104. <http://opera.krnapp.cz/_pdf/46/Stursa.pdf>.
- Tamburelli, G. (2007). Notes on the Legal Framework for the Sustainable Management of Transboundary Protected Areas. In, Tamburelli, G. (Ed.) *Biodiversity Conservation and Protected Areas. The Italian and Ukrainian Legislation*. Milano: Giuffrè Editore.
- Terry, A., Ullrich, K. and Riecken, U. (2006). *The Green Belt of Europe: From Vision to Reality*. IUCN, Gland, Switzerland and Cambridge, UK.
- UNDP/GEF. (1997). Prespa Park Integrated Ecosystem Management of the Prespa Lakes Basin in Albania, Macedonia and Greece, UNDP/GEF Project Document, Resen, Republic of Macedonia.
- UNEP. (2003). *Framework Convention on the Protection and Sustainable Development of the Carpathians*. <<http://www.carpathianconvention.org>>. Accessed on 24 January 2011.
- UNEP WCMC. (2007). *Global List of Transboundary Protected Areas*, <<http://www.tbpa.net>>. Accessed on 24 January 2011.
- UNESCO. (2000). *Biosphere Reserves on Borders*. National UNESCO-MAB Committee of Poland, Warsaw.
- United Nations Conference on Environment and Development. (1992). Rio Declaration on Environment and Development. UN Doc. A/CONF.151/26 (vol. I); 31 ILM 874 (1992).
- van der Linde, H., Oglethorpe, J., Sandwith, T., Snelson, D. and Tessema, Y. (with contributions from Anada Tiéga and Thomas Price). (2001). *Beyond Boundaries: Transboundary Natural Resource Management in Sub-Saharan Africa*. Washington, D.C., USA: Biodiversity Support Program.
- Wrbka, Th., Zmelik, K., Schmitzberger, I. and Thurner, B. (2010). Die Vegetation der Wälder, Wiesen und Trockenrasen des Nationalparks Thayatal – ein erster Überblick. In: *Wissenschaftliche Mitteilungen des Niederösterreichischen Landesmuseums*, 468p.
- Zbicz, D. (1999). Transboundary Cooperation between Internationally Adjoining Protected Areas. In, Harmon, D. (Ed.), *On the Frontiers of Conservation*. Hancock, Michigan, USA: George Wright Society.
- Zunckel, K. (2007). The Maloti Drakensberg Transfrontier Conservation and Development Programme: A Cooperative Initiative between Lesotho and South Africa. Presented at the Peace, Parks, and Partnership Conference, Waterton Lakes National Park, Alberta, Canada, 9–12 September 2007.



**INTERNATIONAL UNION FOR
CONSERVATION OF NATURE**

PROGRAMME OFFICE
FOR SOUTH-EASTERN EUROPE
Dr. Ivana Ribara 91
11070 Belgrade, Serbia
see@iucn.org
tel +381 11 2272 411
fax +381 11 2272 531
www.iucn.org

