

Beyond Boundaries:

Transboundary Natural Resource Management in Sub-Saharan Africa

2001

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Proofreading:	Grammarians, Inc.
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Maps:	WWF-US (1, 2, 4–7); BirdLife International (8); WWF-SARPO (3, 9)
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Please cite this publication as: van der Linde, H., J. Oglethorpe, T. Sandwith, D. Snelson, and Y. Tessema (with contributions from Anada Tiéga and Thomas Price). 2001. *Beyond Boundaries: Transboundary Natural Resource Management in Sub-Saharan Africa*. Washington, D.C., U.S.A.: Biodiversity Support Program.

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Printed on recycled paper.

The Biodiversity Support Program (BSP) is a consortium of World Wildlife Fund, The Nature Conservancy, and World Resources Institute, funded by the United States Agency for International Development (USAID). This publication was made possible through support provided to BSP by the Africa Bureau of USAID, under the terms of Cooperative Agreement Number AOT-A-00-99-00228-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

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Table of Contents

Acronyms and Abbreviations	vii
Acknowledgements	ix
Preface	xiii
Is This Publication for You?	xiii
Purpose, Scope and Overview of This Publication	xiv
Background on the TBNRM Project	xv
Executive Summary	xvii
Background and Context	xvii
TBNRM Elements and Process	xviii
General Conclusions	xviii
Conclusions on the TBNRM Process	xix
Conclusions on Social, Economic, Political and Institutional Aspects	xix
Gaps and Future Needs	xx
Chapter 1: Transboundary Natural Resource Management: An Overview	1
1.1 A Brief History of Transboundary Interests	3
1.2 TBNRM Definition and Continuum	8
1.3 Potential Transboundary Opportunities	12
Chapter 2: The Key Elements of The TBNRM Approach	17
2.1 Stakeholders and Their Interests	19
2.2 Roles in the TBNRM Process	23
2.3 Levels in Transboundary Collaboration	31
2.4 Agreements	40
2.5 Organizational and Individual Capacity	48
2.6 Communication in the TBNRM Process	52
2.7 Constraints and Enabling Conditions for TBNRM	56

Chapter 3: The TBNRM Process	67
3.1 Process Overview	69
3.2 Making Choices and Determining the Relevant Issues for Transboundary Initiatives	69
3.3 Strategic Planning for TBNRM Initiatives	89
3.4 Monitoring, Evaluation and Adaptive Management	95
 Chapter 4: TBNRM Lessons, Conclusions and Future Needs	 103
4.1 Lessons and Conclusions from the Analysis	105
4.2 Gaps and Future Needs	115
4.3 Closing Remarks	119
 References	 121
 Annex 1: A Non-Exhaustive List of Regional and Global Conventions and Agreements and Organizations with Relevance for TBNRM	 130
 Annex 2: Analyzing Potential Transboundary Issues: An Illustration Using TBNRM Case Studies	 135
 Maps	 155

Acronyms and Abbreviations

ACTS	African Centre for Technology Studies
Algiers Convention	African Convention on the Conservation of Nature and Natural Resources
AWF	African Wildlife Foundation
BSP	Biodiversity Support Program
CAEMC	Central African Economic and Monetary Community
CAR	Central African Republic
CBD	Convention on Biological Diversity
CBNRM	Community-Based Natural Resource Management
CCD	Convention to Combat Desertification
CEFDHAC	Conference on Central African Moist Forest Ecosystems
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DRC	Democratic Republic of the Congo
EAC	East African Community
ECOWAS	The Economic Community of West African States
EIA	Environmental Impact Assessment
FFI	Fauna and Flora International
GEF	Global Environment Facility
HQ	Headquarters
IGAD	Intergovernmental Agency for Development
IGCP	International Gorilla Conservation Programme
IUCN	The World Conservation Union
MAB	Man and Biosphere (program of UNESCO)
MOU	Memorandum of Understanding
NGO	Nongovernmental Organization
NP	National Park
NR	Natural Resource
NRM	Natural Resource Management

NRMP	Natural Resource Management Programme (USAID funded)
PPF	Peace Parks Foundation
Ramsar	Convention on Wetlands of International Importance, especially as Waterfowl Habitat
RCSA	Regional Center for Southern Africa (USAID)
SADC	Southern Africa Development Community
SARPO	Southern Africa Regional Programme Office (World Wide Fund for Nature)
SASUSG	Southern African Sustainable Use Specialist Group (IUCN/SSC)
SSC	Species Survival Commission (IUCN)
SUSG	Sustainable Use Specialist Group (IUCN/SSC)
TBCA	Transboundary Conservation Area
TBNRM	Transboundary Natural Resource Management
TBNRMA	Transboundary Natural Resource Management Area
TBPA	Transboundary Protected Area
TBR	Transboundary Biosphere Reserve
TFCA	Transfrontier Conservation Area
TFP	Transfrontier Project
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USAID	United States Agency for International Development
WCPA	World Commission on Protected Areas (IUCN)
WCS	Wildlife Conservation Society
WRI	World Resources Institute
WTO	World Trade Organization
WWF	World Wildlife Fund (in other parts of the world, World Wide Fund for Nature)

Acknowledgements

The authors wish to thank all the many people who have contributed to BSP's Trans-boundary Natural Resource Management (TBNRM) project and this publication. First, the authors would like to thank USAID's Regional Center for Southern Africa (RCSA) for supporting the first phase of the project. Several people in RCSA were involved in various ways, and special thanks go to Donna Stauffer, Pat Foster-Turley, Oliver Chapeyama, Elizabeth Soderstrom, Candace Buzzard and Peter Gore. Support for all activities in the second phase of the project (covering West, Central, Eastern Africa and the pan-African analysis) was provided by USAID's Bureau for Africa, Office of Sustainable Development. Special thanks go to Tim Resch, Jon Anderson and Greg Booth for their support, interest and critical contributions to the study. Mary Rowen of USAID's Global Bureau worked on both phases of the project providing a wide variety of valuable inputs.

In BSP many people were very supportive on various fronts, and special thanks go to Connie Carrol, Sheila Donoghue, Julia Ellis, Rose-Marie Gay, Susan Grevengoed, Cristin Haggard, Rebecca Ham, Stephanie Hando, Ida Jenkins, Julia Karki, Aline Martinez, Sheila McGroder, Angela Reading, Tracie Sam, Jamie Shambaugh, Laurent Somé, Josh Stevens and Theresa Woodard.

The authors would like to express gratitude to the many consultants for their valuable inputs, and for the dedication and long hours they gave to the project. In the first phase they were John Griffin (team leader), David Cumming, Simon Metcalfe, Mike t' Sas-Rolfes, Jaidev "Jay" Singh, Ebenizário Chonguiça and Mary Rowen.

In the second phase consultants involved were as follows:

West Africa: Steven de Bie, Chris Geerling, Jean-Baptiste Kambou, Juliette Koudenoukpo, Rixta Lycklama à Nijeholt and Mohamadou I. Magha

Central Africa: Stephen Asuma, Bryan Curran, Bernard Difara, Norbert Gami, Elie Hakizumwami, José Kalpers, Anecto Kayitare, Annette Lanjouw, Helga Rainer, Eugène Rutagarama, Mbake Sivha, Lisa Steel and David Wilkie

Eastern Africa: Katharine Frohardt, Christine Mathenge, John Mugabe, Philip Muruthi, Robert Nabanyumya, Alan Rodgers and John Salehe

Many thanks are due to all those who reviewed reports in both phases. The authors also would like to thank the many organizations affiliated with the study: African Centre for Technology Studies (ACTS), African Wildlife Foundation (AWF), GEF-UNDP Cross Borders Biodiversity Project, International Gorilla Conservation Programme (IGCP), IUCN—The World Conservation Union, UNEP World Conservation Monitoring Centre, Wildlife Conservation Society (WCS), World Wildlife Fund and World Wide Fund for Nature (Southern Africa Regional Programme Office—SARPO). Peace Parks Foundation (PPF) provided valuable support during the first phase in many forms, including consultations, information and development of databases and literature collection; special thanks go to John Hanks and Werner Myburgh. Madeleine Howard and Kuda Mhwandagara of WWF/SARPO provided effective and timely support in producing a wide range of maps; as did Tim Green, Jennifer D’Amico, Michele Thieme, Wesley Wetengel and David Olson of WWF-US, and Martin Sneary and Mark Balman of BirdLife International in the second phase.

Zimbabwe Trust provided valuable and efficient administrative, logistical and technical support to both phases of the study. In particular, the authors would like to thank Barry Fowlds for his help with the organization of the large workshop in the first phase, and Champion Chinhoyi, Emmanuel Koro, Petronella Pasipamire and Anne Gova for the excellent organization of the pan-African workshop in the second phase of the project, together with Angela Reading from BSP.

Many valuable discussions were held and comments provided during both workshops. The authors would like to thank all participants for taking time out of their busy schedules to participate in, and contribute to these workshops. The pan-African TBNRM workshop was held in April 2001 in Victoria Falls, Zimbabwe; discussions were guided by the skilled facilitation of Oliver Karkoschka and the discussions benefited significantly from the attendance of Jon Anderson, Richard K. Bagine, Champion Chinhoyi, Chieftainess Chinhoyi, Rod de Vletter, Mamadou Ilias Diallo, Amadou Matar Diouf, George Doerken, Jean-Baptiste Kambou, André Kamdem Toham, Anecto Kayitare, Almaz Tadesse Kebede, Mohamadou Issaka Magha, Samy Mankoto Ma Mbaelele, Joseph Matlhare, Lota Melamari, Simon Metcalfe (also for sharing his insights from a both a general and specific initiative perspective), Sedia Modise, Philip Muruthi, Bihini Won wa Musiti, Sophie Mutsekwa, Edith Muza, Henry Mwima, Robert Nabanyumya, Humphrey Nzima, Graeme Patterson, Thomas Price, Alan Rodgers, Mary Rowen, John Yonazi Salehe, Leonard Seelig, James Shambaugh, Laurent Somé and Anada Tiéga. We would like to thank the Honorable Edward Chindori-Chininga, Deputy Minister of Environment and Tourism in Zimbabwe for his inspiring address at the workshop, which echoed the urgency and concern we heard throughout the study in sub-Saharan

Africa for the promotion of sustainable livelihoods through conservation and wise use of transboundary natural resources.

We would like to recognize the amazing support and inputs from numerous stakeholders and specialists from across sub-Saharan Africa. Many people provided their time, knowledge, opinions and insights into the current TBNRM situation in the four regions, as well as their views of opportunities and constraints. These individuals represented a broad range of stakeholders, including government, nongovernmental organizations (NGOs), communities, and the private sector. Unfortunately, there is not enough space to recognize them all sufficiently here, but for the first phase we would like to mention in particular Sedia Modise, Steve Johnson and his SADC NRMP colleagues, Leon Viljoen, Simon Munthali, Bartolomeu Soto and Rod de Vletter. Many thanks to all those from the region who attended the consultative meeting in Harare, the transboundary session of the SASUSG members' meeting in Gaborone and the workshop in Midrand. For the second phase we would like to mention in particular Seydina Issa Sylla, Ibrahim Thiaw, Abdoulaye Kane and René Bosman for their support during Harry's visit to West Africa. Many thanks to Thomas Price, Anada Tiéga, David Wilkie and John Griffin for their ongoing support, input and contributions during the second phase.

The authors also would like to thank Jon Anderson, Simon Anstey, Edmund Barrow, Richard Margoluis, Thomas Price, Alan Rodgers, Mary Rowen, Leonard Seelig, Anada Tiéga, Rod de Vletter, David Wilkie and Dorothy Zbicz for reviewing a draft of this document. Their comments made a substantial contribution to the publication. The final opinions expressed in the publication are those of the authors and not necessarily those of the reviewers.

Finally, Judy and Trevor would like to thank the Oglethorpe and Sandwith families for their support, tolerance and forbearance while we were working long hours on this project.

Throughout the whole study, we were impressed by the enthusiasm for, ownership of, and healthy skepticism about transboundary natural resource management, across all stakeholder groups, and in all countries. We wish you all success in transboundary developments where appropriate in sub-Saharan Africa in future years!

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Washington, D.C.
September 2001

Preface

Interest is rapidly growing in transboundary natural resource management (TBNRM) as a way to improve natural resource management and biodiversity conservation, and promote regional economic development. Many different TBNRM approaches are being undertaken in Africa, producing a rich and extensive body of experience. The purpose of this publication is to present the results of an analysis undertaken by the Biodiversity Support Program (BSP) on current TBNRM developments in sub-Saharan Africa. Results are presented in the form of a framework for TBNRM, covering a wide range of TBNRM approaches. The publication provides general guidance about when (and when not) to work across boundaries, what TBNRM involves, what its limitations are, and pitfalls to avoid. Since each TBNRM situation has its own unique set of circumstances, there is no fixed blueprint approach. Findings and lessons are drawn from practical experience, and case studies are used to illustrate and expand many of the points.

This publication does not give all the answers (they are not all known yet!), but aims to help people to think through what best to do in a particular situation. It reflects the current state of TBNRM in sub-Saharan Africa, and we hope that it will encourage more TBNRM development where appropriate. It should also be seen as a step in a longer-term process of developing this approach and understanding both its potential and limitations. Our intent with this work is to contribute to stimulating discussions, practices and analyses to further the TBNRM process.

Is This Publication for You?

This publication is written both for people who are considering embarking on TBNRM for the first time, and for people who have many years of experience in TBNRM. It also covers a wide range of TBNRM situations, from transboundary protected areas to natural resource management integrated in regional development. Different sections are relevant for different situations and levels of experience, so we suggest that you select those parts that are most useful to you. We provide guidance on this in the next section and the start of Chapters 2, 3 and 4.

The main audiences are African practitioners and decision makers active in natural resource management and biodiversity conservation who have an interest in TBNRM. This includes:

- Senior technical staff in natural resources and environment government ministries;
- Senior staff in natural resource government departments and parastatals;
- Park wardens and community project managers;
- Senior conservation staff of national and international nongovernmental organizations (NGOs);
- Teachers and students at natural resource colleges and university departments; and
- Donors with an interest in natural resource management and biodiversity conservation.

Purpose, Scope and Overview of This Publication

This publication aims to present a framework for TBNRM including general concepts, the transboundary process, and lessons learned, based on a review and analysis of TBNRM experiences to date in sub-Saharan Africa.

There is currently great interest in TBNRM. As with any new process that has yet to be fully tried and tested, there is a high learning curve as successes and failures occur. TBNRM may not always be the most effective or appropriate approach. We hope that this publication will help to share lessons from the wealth of knowledge and experience that has accumulated so far, and assist those who are currently thinking about embarking on TBNRM to use approaches that have worked elsewhere, and avoid some of the pitfalls that others have encountered. For those already involved in TBNRM, the publication may provide new insights and ideas, help them to analyze their own situations holistically, and find some solutions to current problems.

Chapter 1 provides an overview of TBNRM. Chapter 2 outlines key elements of TBNRM. These elements are building blocks for the TBNRM process, which is described later. All these key elements are similar to those of natural resource management (NRM) within a country, but they are reviewed in a specific transboundary context. The chapter covers stakeholders and their interests, and the different roles people play in the TBNRM process. Levels in the TBNRM process are outlined, followed by a review of the need for and types of agreements in TBNRM. Capacity and communication needs are reviewed, and finally constraints and enabling conditions are listed.

Chapter 3 describes the process of scoping and analysis to help assess whether or not it makes sense to apply this approach in a particular situation. This also helps to distinguish objectives that can be achieved effectively by working collaboratively across borders and those where internal actions alone would suffice. The chapter then covers the need for

the development of a joint vision, and planning and design of the initiative. The first part of Chapter 3 is most relevant to those considering whether to adopt a transboundary approach, and those in the early stages of planning and developing transboundary initiatives. The final section on monitoring, evaluation and adaptive management is relevant for people already working in TBNRM.

Finally Chapter 4 outlines major findings and conclusions from the project, and reviews gaps and future needs.

Background on the TBNRM Project

BSP's TBNRM project was initiated in 1998 with a study on the opportunities and constraints for TBNRM in Southern Africa, at the request of USAID's Regional Center for Southern Africa (RCSA). The second phase of the project expanded to include West, Central and Eastern Africa; BSP commissioned regional overviews and case studies in each region, and undertook a pan-African analysis. Findings from all four regions were used as basis for a preliminary analysis. A workshop was then organized in Zimbabwe in April 2001 with practitioners from all four regions in sub-Saharan Africa, for in-depth discussions on the current thinking on and understanding of TBNRM. A small writing team of BSP staff and consultants incorporated the project findings in this publication. The first phase was managed by Judy Oglethorpe and the second phase by Harry van der Linde.

Reports upon which this publication is based are listed before the reference section, and more detailed information on individual regions or areas can be found in those reports. They are also posted on our Web site, at www.BSPonline.org. Some of these publications are available in more than one language (English, French and one in Portuguese). They include the following:

Southern Africa: Biodiversity Support Program (1999), Cumming (1999), Griffin *et al.* (1999), Metcalfe (1999) and Singh (1999)

West Africa: Lycklama à Nijeholt *et al.* (2001) and Magha *et al.* (2001)

Central Africa: Lanjouw *et al.* (2001), Steel and Curran (2001) and Wilkie *et al.* (2001)

Eastern Africa: Muruthi and Frohardt (2001), Rodgers *et al.* (2001a) and Rodgers *et al.* (2001b)

Bibliography: van der Linde, Zbicz, and Stevens (2001)

The focus of the analysis was mainly on wildlife, forestry and protected areas. Time and financial constraints meant that not all transboundary natural resources could be given equal coverage. Water, aquatic and marine resources, and rangeland for livestock are not covered in depth although we recognize that they are extremely important transboundary resources in many African regions.

Executive Summary

Background and Context

Interest in transboundary natural resource management (TBNRM) is growing rapidly in Africa and the rest of the world. TBNRM is seen as an important new tool in broad landscape approaches to sustainable natural resource management and biodiversity conservation; a way to promote regional economic development, reunite divided communities and bring peace to troubled regions; and a way to fulfill many other opportunities. Large investments are being made in it.

The Biodiversity Support Program's transboundary project aimed to review current TBNRM developments in sub-Saharan Africa; analyze the process involved; and identify opportunities, constraints and enabling conditions to see how effective the TBNRM approach is. The analysis was based on reviews of TBNRM development in Southern, Eastern, Central and West Africa; a series of case studies with a wildlife, forestry and protected areas focus; and results from workshops and consultations over the past three years.

TBNRM is defined in this publication as *any process of collaboration across boundaries that increases the effectiveness of attaining natural resource management or biodiversity conservation goal(s)*. (Note that the countries sharing resources that are candidates for transboundary management do not have to be neighbors.) The approach covers a wide continuum of TBNRM initiatives and activities ranging from transboundary community-based natural resource management and transboundary protected areas (TBPAs) management to large-scale natural resource management integrated in regional economic development.

Ecological opportunities include maintaining or restoring linkages in ecological landscapes that cross borders, and reducing transboundary threats to promote sustainable use of natural resources. Social and cultural opportunities include renewal of cooperation and cultural ties among communities severed by borders, and increased welfare and development opportunities for populations. Economic opportunities include the development of regional economic opportunities such as tourism, and economies of working on a larger

scale. Political opportunities include improved security in border areas and enhanced transparency and accountability in the use of natural resources. There are also many constraints to TBNRM. These are documented in the publication and many are outlined in the conclusions below.

TBNRM Elements and Process

The key elements of TBNRM are similar to those of in-country natural resource management (NRM); this publication reviews them in a specific transboundary context. They are as follows: stakeholders and their interests, the different roles in the TBNRM process, levels in the TBNRM process, the need for and types of TBNRM agreements, capacity and communication needs, and constraints and enabling conditions.

Scoping and analysis tools are presented, to help decide whether or not to embark on transboundary management in a particular situation. These tools also help to distinguish those objectives within an initiative that can be achieved more effectively by working collaboratively across borders from those where internal actions alone would suffice. The process continues with the development of a joint vision, and the planning and design of a TBNRM initiative. The importance of monitoring and evaluation is outlined to enable learning from successes and failures and adaptive management. The whole process is illustrated in a TBNRM cycle.

General Conclusions

The analysis concludes that TBNRM can be an effective approach for natural resource management and biodiversity conservation, where shared cross-border threats can be tackled jointly and/or mutual benefits can be gained collaboratively across a border. TBNRM is not, however, a universal panacea for management of natural resources on borders. In some cases it is more effective for countries to manage their shared resources independently because there is little net gain from collaboration.

TBNRM should not replace NRM within each country involved, but should be an extension of it. TBNRM will not succeed if internal NRM does not work. Many of the requirements for collaboration called for by TBNRM are similar to those for internal NRM. Since each TBNRM situation has its own unique set of circumstances, there is no blueprint for the approach; it needs to be planned, implemented, evaluated and adapted around the specific circumstances of each situation.

The few existing formal TBNRM agreements among countries have only recently been negotiated and as yet are not yet broadly tested and proven. The formal approach appears to take considerable time and larger amounts of funding before showing any results in terms of improved resource management or better conservation on the ground.

Conclusions on the TBNRM Process

Since TBNRM is costly and time-consuming it is crucial to undertake an adequate assessment of TBNRM feasibility before embarking on transboundary collaboration. It is best to work at the lowest transboundary level(s) possible. A bottom-up approach has the greatest chance of resulting in participation, buy-in and ownership of the process at the local level where the resources are managed. Involvement of higher levels can change over time, and as needed. It is important not to wait for all the enabling conditions to be in place before starting, but to take a pragmatic approach and start in areas where there are feasible opportunities, even if these are limited.

TBNRM must be built on trust and partnerships. Trust takes time and patience to establish and cannot be rushed. TBNRM should be a flexible process evolving on the basis of real need. It is important to monitor and evaluate the effectiveness of this collaboration frequently, and adapt as appropriate. Learning should be done both internally and jointly across the border, which requires transparent sharing of information. Learning is also important across different TBNRM areas.

Conclusions on Social, Economic, Political and Institutional Aspects

Cooperating across borders increases the complexity of stakeholders. Diversity of interests can be very high, covering ecological, sociocultural, economic, institutional and political issues. Ensuring adequate stakeholder participation and seeking win-win situations take time but are essential for success.

TBNRM must increase the efficiency of natural resource management in order to be worthwhile. Synergism is essential for successful TBNRM: *the whole must be greater than the sum of the parts, otherwise individual countries are better off managing their resources independently*. In the right situations TBNRM can increase the efficiency of managing and monitoring natural resources through avoiding or reducing duplication of effort, creating economies of scale, and enhancing economic opportunities such as

increased tourism. However, TBNRM requires additional investments of money and time. Funding for TBNRM should be incremental, and not at the cost of internal NRM.

Political will and long-term commitment are essential for successful TBNRM. Good international political relations can facilitate TBNRM; sovereignty and security issues can constrain it. Collaboration can resolve local-level cross-border conflict by finding common ground and shared objectives. It can help to increase security and control over resources in border areas. Its potential role in larger-scale peace processes among countries, however, was less clear from this study.

TBNRM at a formal scale tends to increase the involvement of upper government levels, with a risk that these levels will exert influence and control that is not in the best interests of local levels. Good governance within a country is therefore essential for successful TBNRM, including subsidiarity and two-way transparency and accountability between higher and lower levels in control of land and resources.

Harmonization of relevant policies and legislation across boundaries can be an important enabling condition for TBNRM. Despite their good potential to facilitate TBNRM, some of the international environmental conventions are not currently playing a strong role. Certain regional economic agreements (e.g., SADC) seem to be playing a larger facilitating role.

TBNRM should work through existing organizations where possible. Capacity is frequently a constraint, and weak national structures cannot create strong TBNRM. Outside facilitators may be able to help build capacity. TBNRM is sometimes constrained by governments' narrow NRM approach—i.e., through isolated treatment of single resources/land uses—which does not facilitate multiple resource use.

Gaps and Future Needs

TBNRM's potential role in economic development needs to be further promoted. Greater collaboration across sectors and disciplines is needed to enhance the effectiveness of TBNRM, and it should be mainstreamed in regional and international forums. Financing is an issue that requires addressing. Capacity building will be a need for many years to come.

As new experiences are gained, they need to be analyzed and the existing understanding of TBNRM expanded. Further studies are recommended on how TBNRM is influenced by political relations, and more specifically on the potential role of TBNRM in

peace building between nations. The role environmental conventions can play in promoting TBNRM merits further investigation. New techniques for economic valuation of TBNRM are urgently required, with cost/benefit analysis tools for practitioners.

TBNRM results and lessons should be disseminated widely in Africa and indeed globally. To promote the exchange of experiences and learning, mechanisms for information sharing and networking need to be created or enhanced. These measures will help to ensure the most effective management of natural resources in transboundary areas.

1

Transboundary Natural Resource Management: An Overview

Transboundary Natural Resource Management: An Overview

Millions of people depend on the African continent's renewable natural resources for food, shelter, medicines, and fuel — and as a means of income generation. Natural systems also provide ecological services such as water supplies, soil protection and fertility. In addition, they have broader values—such as cultural heritage and intrinsic values. However, international boundaries cut across many natural resource systems, which can have serious management implications.

International border areas contain some of the most intact ecosystems in the world, many of which are located in remote and inhospitable areas (Westing 1998; Griffiths 1995). However, international borders are political, not ecological boundaries. Consequently many key ecological systems and components are dissected by borders (see Maps 1-9), and may be subject to different management and land-use practices across borders. Sometimes these practices are incompatible, damaging the resource base and causing hardship to stakeholders. In these cases, to ensure that present and future generations can have sufficient access to natural resources and thereby secure their livelihoods, the management of water catchments, ecosystems, and migratory wildlife must become more compatible and participatory across local, national and international levels. Planning and management should take into account the ecological, sociocultural, economic, political and institutional concerns of stakeholders across national boundaries.

Over the last few decades, management of natural resources and biological diversity has moved from a site-level focus toward broader landscape approaches. This has been

accompanied by growing interest in transboundary natural resource management (TBNRM), particularly over the past decade. The TBNRM concept means different things to different people, and there are many different incentives for involvement in transboundary initiatives and activities. This publication shares experiences and current understanding of TBNRM in Africa and presents an overall continuum for TBNRM as well as practical guidance. Since it is not always easy to determine when a TBNRM approach is appropriate (e.g., having a natural resource in two adjacent areas across a border does not automatically mean that TBNRM will provide the most effective management), the publication also aims to provide more clarity on that front. Recognizing that TBNRM is a relatively new discipline, the reader should see the publication as one step in the longer-term development of thinking and understanding to further the TBNRM process and its application.

Given the broad origins of TBNRM, this chapter gives a brief history before moving on to provide a definition of TBNRM and outline a continuum of types of TBNRM initiatives. Different groups of stakeholders are interested in TBNRM activities for different reasons, such as economic development, strengthening of sociocultural ties, political stability, or sustainable management of natural resources and ecological processes. In an appropriately holistic and effective process, all these interests need to be taken into account. Since the main audiences for this publication are natural resource managers and conservation practitioners, the publication uses this as the entry point and rationale for instigating TBNRM.

1.1 A Brief History of Transboundary Interests

Many local communities have been implementing TBNRM at a local level for a long time, which is not surprising since cultures often straddle international borders. Borders often dissect ethnic groups and the traditional natural resource management systems which were in place before colonial boundaries were imposed (see Box 1.1). International politics have in some cases eroded these traditional systems. Metcalfe (1999) provides an overview of components of community-based natural resource management (CBNRM) that are relevant in the context of TBNRM, as well as opportunities and constraints for TBNRM from a community perspective. Provided principles such as efficiency, equity and sustainability are met, single-country CBNRM approaches near borders could develop into TBNRM initiatives. A shared identity with neighboring communities is one of the key elements for restoring or building collaboration across a border.

The Albert National Park was the first park crossing international borders in Africa, established by the Belgian colonial regime in 1925 to conserve natural resources occurring in two nations. It spanned the colonial states of Ruanda-Urundi and the Congo.

Box 1.1 Transhumance in West Africa

Traditional land-use systems in West Africa are to a large extent determined by climatic conditions. Average annual rainfall and variation in rainfall within and between years determine the type and organization of land-use systems. As a strategy to deal with this high rainfall variation, pastoralists move around extensively with their herds. Centuries-old mobile livestock systems make use of resources in (semi)arid and more humid zones, varying routes depending on resource availability in different areas. However, opportunities for herders to move around with their livestock have decreased over time, as a result of the conversion of pastures and transhumance passages into agricultural lands. It also has become more difficult for pastoralists to cross international borders, notwithstanding existing bilateral or regional agreements securing transboundary movements of livestock through stipulating issues related to vaccination, places of entry and departure, grazing zones, etc. In extreme cases, conflicts between local residents (farmers) and foreign herders reach the government level and put pressure on international relationships. Overall, the viability of these transhumance systems is becoming more limited because key resources no longer exist or are becoming less accessible.

Source: Lycklama à Nijeholt *et al.* (2001).

After independence in the early 1960s, the Rwandan part became Parc des Volcans (Volcanoes National Park), while the Congolese part became Virunga National Park (Wilkie *et al.* 2001).

The world's first International Peace Park was established in 1932, linking Glacier National Park in the United States with Waterton Lakes National Park in Canada. A Memorandum of Understanding (MOU) exists between the park departments of both countries, and management is implemented through a combination of internal and transboundary management activities. The two parks are largely managed separately; they cooperate on joint nature tours, search-and-rescue operations, and fire management. Prior to that Poland and Czechoslovakia had signed the Krakow Protocol in 1925 to set a framework for establishing international cooperation to manage border parks (Thorsell 1990). The first of these parks, however, was not established until after 1945.

The number of Transboundary Conservation Areas (TBCAs) grew gradually in the second half of the twentieth century until around 1990, at which point it started to increase rapidly. By 2001 the number of identified adjoining protected area complexes had more than doubled since 1990, to 169 in 113 countries including 667 individual protected areas (see Table 1.1). As of 2001, in Africa alone there are 35 complexes involving 34 countries and including 148 individual protected areas (Zbicz 2001). With this increasing interest—and building on a meeting held in 1995 by the IUCN's World Commission on Protected Areas (WCPA) and Australian Alps National Parks—

**TABLE 1.1 — INTERNATIONALLY ADJOINING PROTECTED AREA COMPLEXES
IN AFRICA AND WORLDWIDE**

	Number of protected area complexes	Number of countries involved	Number of protected areas involved
Worldwide	169	113	667
Africa	35	34	148

IUCN/WCPA generated materials outlining guidelines for Transboundary Protected Areas at three meetings convened in Somerset West, South Africa (1997), Bormio, Italy (1998) and in Gland, Switzerland (2000) (Sandwith *et al.* 2001). On April 7, 1999, the first post-colonial African Transfrontier Park was created when Botswana and South Africa signed a bilateral agreement for the Kgalagadi Transfrontier Park. The whole area is to be monitored by a new Kgalagadi Transfrontier Park Foundation; a joint management agency will implement some activities jointly, and others will be done by each nation independently.

At the same time, integration of economic development on a regional level has become more and more important across the world, particularly over the past two decades. In Africa this is seen in the development of regional institutions such as the Economic Community of West African States (ECOWAS), Central African Economic and Monetary Community (CAEMC), the revived East African Community (EAC) and the Southern Africa Development Community (SADC). As expressed by SADC (1994, p. 3), *regional cooperation is not an optional extra; it is a matter of survival*. While the primary reasoning for the establishment of these institutions is economic development, given people's dependency on natural resources, increasing attention is being given to integrating broader environmental concerns and natural resource management under these agreements. As concluded, for example, in the Biodiversity Support Program's study on TBNRM in Southern Africa, the potential for nature-based tourism there is very high in a transboundary context, and as yet under-exploited (Griffin *et al.* 1999).

This increased interest and need for TBNRM is in line with broader landscape priority-setting exercises developed and undertaken during the past few years by international conservation organizations and others, which recognize the ecological need to work on larger scales (WWF-US in press). This work highlights the strong correlation between areas of high biodiversity value and proximity to international boundaries. All this increased interest is also reflected in the incorporation of transboundary aspects in certain international conventions, and a number of regional and African conventions and agreements

Box 1.2 Development of TBNRM Approaches in Regional and Global Conventions and Agreements

There are a number of formal regional and global agreements and conventions that contain sections calling for transboundary collaboration. There are also others that are primarily set up to facilitate transboundary collaboration between two or more nations. A number of these are mentioned here, regardless of current level of implementation or enforcement.

Early formal evidence in Africa of the need for transboundary collaboration lies in the African Convention on the Conservation of Nature and Natural Resources (Algiers) signed in 1968. The Algiers Convention calls for consultation between upstream and downstream states on water issues. Following Algiers, the Ramsar Convention (Convention on Wetlands of International Importance, especially as waterfowl habitat, 1971) requires interstate consultation on matters affecting shared wetland resources. Ramsar was followed by the recognition of international identification and stewardship of natural resources in the World Heritage Convention (Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972), which called for international recognition and support of cultural and natural heritage sites. And finally, the Convention on International Trade in Endangered Species (CITES), signed in 1973, requires participatory states to conform to specified interstate practices for trade in listed threatened species. These four conventions foreshadowed the broader use of TBNRM principles in treaties to come.

The late 1970s saw the Convention on the Conservation of Migratory Species (Bonn Convention, 1979) calling, for example, for the prevention of obstacles to migration, coordination of antipoaching efforts, and exchange of information. Interstate cooperation moved beyond migratory species in the 1985 Nairobi Convention for the Protection, Management and Development of Marine and Coastal Environment of the Eastern Africa Region. The Nairobi Convention calls for international cooperation on the development of marine and coastal resources and for the protection of migratory, so-called fly-over species, as well as the protection (under international and NGO supervision) of an entire swath of coastline shared by the signatory states.

Around the mid-1990s the full application of TBNRM principles started on an interstate scale. The Convention on Biological Diversity (CBD, 1992) established an ecosystem approach to managing resources, formalized consideration of resources in adjacent countries, and called for the involvement of all relevant sectors of society and science. The United Nations Framework Convention on Climate Change (1992) and Convention to Combat Desertification (1994) express similar principles. In 1994 and 1996 the Agreement on the Conservation of African-Eurasian Migratory Waterbirds and the Conference on Central African Moist Forest Ecosystems were opened for signing and ratification, representing more stringent procedures for international supervision of wetlands and moist forest ecosystems respectively.

A more complete list of conventions, along with their articles relevant for TBNRM, can be found in Annex 1. The annex is not a comprehensive list, but a representative sampling of treaties.

(see Box 1.2). Investment by both bilateral and multilateral donors in TBNRM initiatives has also increased.

Building on national activities, originating from regional institutions, or stimulated by international conventions or interest by donors and international NGOs, many trans-boundary initiatives are now being planned or underway. The Biodiversity Support Program (BSP) initiated a study on TBNRM in Southern Africa in 1998 at the request of USAID's Regional Center for Southern Africa. This was later on expanded to include West, Central and Eastern Africa, and an overall pan-African analysis. Results of this work are reflected in this publication. Box 1.3 shows some similarities and differences in TBNRM-enabling conditions and developments among the four regions.

Box 1.3 TBNRM Development in African Regions

The Biodiversity Support Program's TBNRM project undertook reviews of TBNRM development in each of the four regions in Sub-Saharan Africa (see Map 2). There are many important similarities but also differences in the circumstances and degree of TBNRM development in these regions.

General similarities in circumstances across the regions include the fact that many border areas are relatively remote, sparsely populated and less developed compared to the interior of the countries. People living near the borders are thus particularly dependent on natural resources for their livelihoods. Often their ethnic groups have been divided by political borders, and they may be marginalized because of their remote location. Ecosystems in border areas are often cut by artificial boundaries as well. Many protected areas are located in border areas (see Map 7). Hence in many countries there are important natural resources and biodiversity concentrated near borders.

None of the regions is homogeneous. There is tremendous variation among countries within regions in terms of country size; population density; degree of economic development; amount of remaining intact vegetation cover, natural resources and biodiversity, and pressure on them; warmth (or as the case may be, chilliness) of diplomatic relations with neighboring countries; and degree of economic collaboration. All of these factors affect the opportunities, constraints and enabling conditions for TBNRM.

TBNRM has been occurring at the community level ever since political borders were imposed by colonial powers, in places where traditional management systems dissected by borders have not been eroded by international politics. TBNRM still occurs at an extensive scale in the range management practiced by transhumant pastoralists in Eastern and West Africa, and on a more intensive and local scale in many other resource systems in all the regions. However, traditional management systems have become increasingly constrained by political and national economic forces in many areas.

Continued on page 8

Transboundary collaboration among government organizations has been more limited. Informal collaboration has occurred for decades in a few transboundary protected areas, for example in certain adjacent protected areas in Southern and West Africa. In some cases this is being formalized in agreements among governments. Agreements exist in many regions on the management of water resources. Collaboration on animal health, transhumant pastoralism and control of desertification occurs in West Africa, and on many economic development and natural resource aspects in Southern Africa through the Southern Africa Development Community.

In the field of official government transboundary collaboration over wildlife management, Southern Africa is furthest ahead with several large TBNRM projects in place. Threats to wildlife are serious in the region, but in turn opportunities are significant because of the great potential for regional tourism development. TBNRM is occurring as part of a wider regional economic development rather than in isolation. This combination of factors has enabled the region to move ahead rapidly with TBNRM. In West Africa opportunities for developing tourism based only on wildlife are more limited; for this reason there is consideration of combining wildlife with cultural tourism. There is a great deal of interdependence between the Sahel and the coastal areas in terms of livestock production in transhumant systems in the north, and meat markets in the more populous south.

In Central Africa there is much less regional collaboration. In much of the region there are still very large blocks of relatively intact forest, and the need for TBNRM is not as great, except in areas of very high pressure and with high resource value, such as in the Virungas where successful TBNRM is carried out to conserve mountain gorillas. In Eastern Africa there has been relatively little transboundary wildlife management, despite the connectivity across borders and the high potential for cross-border tourism in East Africa. The newly revived East African Community may change this situation in that part of the region.

Some initiatives include two or more regions—the Nile Basin Initiative, for example, involves 10 countries from Central, Eastern and North Africa.

Sources: Griffin *et al.* (1999), Lycklama à Nijeholt *et al.* (2001), Rodgers *et al.* (2001a), Wilkie *et al.* (2001).

1.2 TBNRM Definition and Continuum

The increase in TBNRM activities is motivated by multiple interests, involves multiple actors, and has various origins. It is not always clear what is meant by TBNRM. The following sections provide a definition for the term as used in this publication and outline a continuum for TBNRM.

1.2.1 TBNRM Definition

The definition of TBNRM, as it has evolved and been used in this study, is presented in Box 1.4. TBNRM is defined in such a way that it covers a broad continuum of initiatives and approaches, while being focused enough to share practical experiences and guidance from the specific angle of natural resource management and biodiversity conservation. Note that TBNRM refers to the management process rather than the transboundary natural resources themselves. Resources may be shared across a boundary, but if there is no collaboration, there is no TBNRM. As defined, TBNRM only makes sense if it increases the effectiveness of attaining the goals. In all other cases it would be hard to justify the efforts and expenses needed.

While the actual implementation of TBNRM often takes place at a specific site (a TBNRM Area—or TBNRMA) through transboundary activities, TBNRM is broadly defined as a *process* of NRM across boundaries. The focus of this document is mainly on the process. It emphasizes the need for flexibility when applying this approach. **There is no blueprint model, and the experiences documented and guidance provided should be put in that context—each situation is unique, and requires its own flexible process and approach.**

Two additional notes apply to this definition. First, given the nature of certain goals such as conservation of migratory species (e.g., lesser flamingos) or ecosystem functions, sites concerned may not necessarily be *contiguous* across the boundaries (see Box 1.5), but the process of TBNRM may still be relevant. In most cases, however, examples are drawn from contiguous areas. Second, given the multiple use of certain transboundary sites and the multiple interests of different stakeholders, numerous parties may be *involved for different reasons* (ecological, social, economic, political and institutional). Potential opportunities provided by TBNRM and related to these different reasons are listed in Section 1.3.

In order to take full advantage of these opportunities, and for natural resource managers to be effective in the long term, it is essential to have an open mind and a broad vision on TBNRM—hence the presentation of an overall continuum within which TBNRM can be applied.

1.2.2 The TBNRM Continuum

Using the definition above, the TBNRM process is applicable in a broad continuum of natural resource management and conservation strategies as reflected in Figure 1.1. The continuum ranges from Transboundary Protected Areas (TBPAs) at one end, to large regional economic development plans and activities that integrate NRM and biological diversity conservation objectives at the other end. While certain approaches are listed at points along this continuum, they should not be seen as separate, discrete entities—in

Box 1.4 Transboundary Natural Resource Management (TBNRM) Definition

TBNRM is any process of collaboration across boundaries that increases the effectiveness of attaining a Natural Resource Management or Biodiversity Conservation goal(s).

- “Across boundaries” — in the broadest context, this term covers transitions across geographical, legal and land-use borders. While this is relevant in the overall context of TBNRM discussions, this study has limited itself mainly to situations across international borders.
- “Collaboration” — an actively, consciously decided way of working with partners on the other side of the boundary; the process through which TBNRM manifests itself.
- “Increases the effectiveness of attaining” — obtaining the maximum NRM or conservation payoff for every unit of investment; investment can be in staff time and other resources (including but not limited to financial resources).
- “Natural Resource Management or Biodiversity Conservation goal(s)” — Goals can be defined in terms of:
 - species productivity and species and genetic diversity;
 - habitat and its productivity; or
 - ecosystem functions and services.

Goals are to be achieved at a particular site as agreed by, and to the benefit of stakeholders. Areas where TBNRM is applicable span conservation areas with solely biodiversity conservation goals, water-based systems (rivers, lakes, wetlands), and pastoral and agricultural land-use systems that include natural resource management goals.

practice they are often applied in combination with the other strategies at different points on the continuum. Each situation has its own specific mix of complementary strategies, depending on types of land use, juridical and tenure arrangements, and the different actors involved.

While this publication aims to provide general guidance on the application of the TBNRM process across this continuum, other organizations have recently developed guidance for specific approaches. The World Conservation Union (IUCN) coordinated the development of concepts and guiding principles for TBPA for Peace and Cooperation (Sandwith *et al.* 2001). It provides a working definition for Parks for Peace, consolidates guidelines for transboundary cooperation in protected areas, and presents a Draft Code for Transboundary Protected Areas in Times of Peace and Armed Conflict. UNESCO developed the Man and Biosphere (MAB) Seville 5+ Recommendations for the Establishment and Functioning of Transboundary Biosphere Reserves (TBRs) (UNESCO 2000), which describe procedures for the establishment of a TBR, its functioning and relevant institutional mechanisms, all in the context of the goals of the Seville Strategy.

Box 1.5 Transboundary Management of Migratory and Ranging Species

Animals do not respect borders unless they are forced to—by fences, for instance. Some terrestrial species such as elephants range over large areas and frequently cross international borders. Access to critical areas at certain times of the year for adequate food, water, shelter and breeding sites within the range of a species is essential for its survival. Some areas may only be used in extreme years: for example, Kalahari wildebeest traditionally move farther in very dry years to seek perennial water sources. Transboundary planning should take these needs into account, and aim to maintain access for migratory and ranging species to critical sites and resources across borders, including those needed in extreme years. Requirements during El Niño and La Niña years may be a useful guide for the latter. Land-use plans on both sides of a border should include viable corridors linking resources if traditional ranges are encroached by other land uses.

Sustainable harvesting of migratory and ranging species poses extra challenges. There is less sense of ownership of a resource that is only present at certain times of the year, and that may be used by others elsewhere. However, when the resource is under pressure, collaboration over quota setting and enforcement is essential to prevent the loss of the resource. There is probably more experience in transboundary management of shared fisheries than terrestrial species.

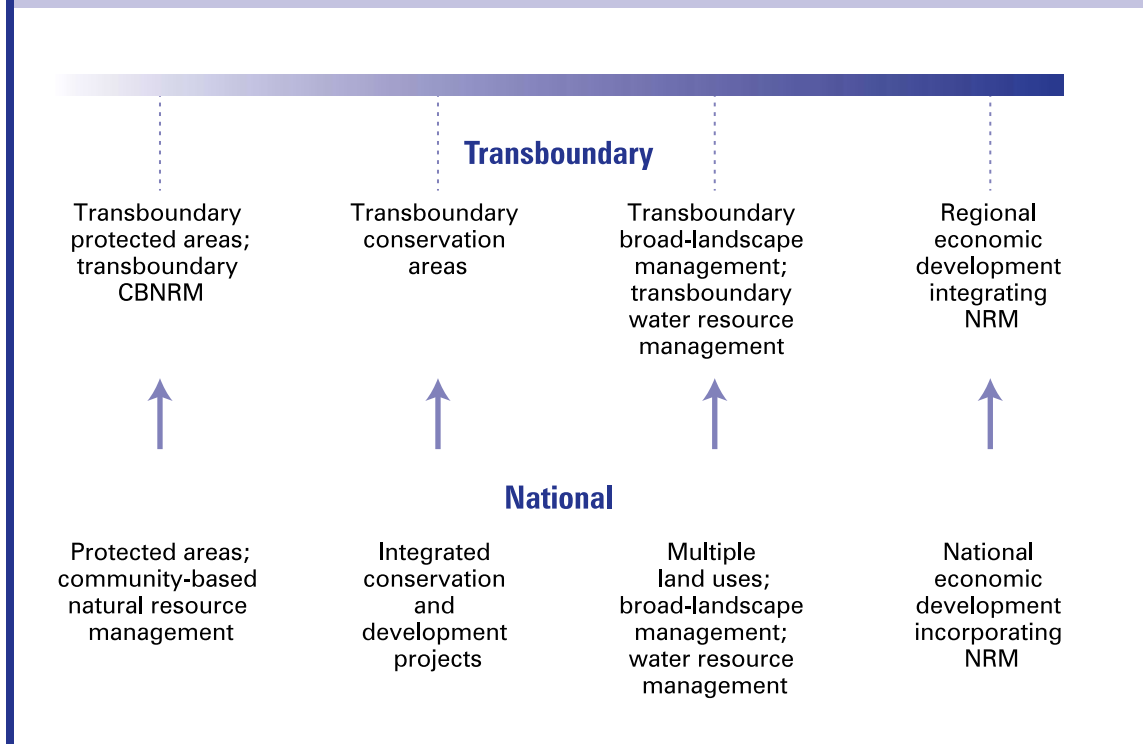
A different form of transboundary management may be needed for species that swim or fly between noncontiguous sites in mainland Africa (e.g., turtles, migrating African and Palearctic wetland birds). In this case it is important to maintain habitat in the mainland sites to meet their needs, and control threats such as excessive harvesting. This is much easier for species that use a few very specific sites at high density, such as flamingos, than for species that migrate over a broad front and occur at low densities. There are very clear in-country roles for each country involved, to conserve sites they have jurisdiction over and limit threats there. However, international collaboration is important for activities such as inventories (e.g., pan-African census), pooling of expertise and helping to build capacity. Where one country poses a threat to the resource, the other countries may be able to take action to encourage changes in the problem country. International conventions can play an important role here.

Wetlands International is planning a GEF-funded capacity-building project to support conservation of critical wetlands along the African/Eurasian migratory waterbird flyway, to assist the countries concerned to implement the Ramsar Convention and the Convention on the Conservation of Migratory Species of Wild Animals. The project will review training, communication, management and gaps in protected areas along the flyway, and identify best practices. A capacity-building program will follow, including demonstration site-management projects. Participating countries in Africa are likely to include Mauritania, Niger, Nigeria, The Gambia, Senegal, South Africa and Tanzania.

(with contributions from David Olson, WWF-US; Anada Tiéga, Ramsar Convention Secretariat; Holly Dublin, WWF International; and Peter Jones, University of Edinburgh)

For some of the other approaches across the continuum no specific guidance has been developed (for example, there is none for integrating TBNRM into regional economic initiatives/projects). While the latter approach is mainly driven by national governments' and donors' priorities to alleviate poverty, and by private sector investment,

FIGURE 1.1 — TRANSBOUNDARY NATURAL RESOURCE MANAGEMENT CONTINUUM



it is very important that it is linked to people’s dependence on natural resources. An integrated and holistic approach is required. Given the scale and anticipated impacts of these regional economic developments on the landscape in the coming decades, natural resource managers and conservationists should not only be aware of these developments but become more strategic about getting engaged in these processes and mainstreaming conservation. They should become involved in discussions and development of plans, and collectively increase and improve the understanding and approaches toward these developments over the coming years.

1.3 Potential Transboundary Opportunities

Given the multiple use of certain transboundary sites and the multiple interests of different stakeholders, numerous parties may be *involved for different reasons* (ecological, social, economic, political and institutional). Potential opportunities provided by TBNRM are outlined below. Note that not all opportunities will be relevant in each case. Constraints to TBNRM are covered separately in Section 2.7. [Sources for listed opportunities: Biodiversity Support Program (1999), Cumming (1999), Griffin *et al.* (1999),

Lanjouw *et al.* (2001), Lycklama à Nijeholt *et al.* (2001), Magha *et al.* (2001), Metcalfe (1999), Muruthi and Frohardt (2001), Rodgers *et al.* (2001a), Rodgers *et al.* (2001b), Sandwith *et al.* (2001), Shambaugh *et al.* (2001), Steel and Curran (2001), Wilkie *et al.* (2001), David Olson, WWF-US (pers. comm.)].

Ecological Opportunities

- Maintain linkages in ecological landscapes that cross borders to maintain ecological processes and functions (e.g., hydrological systems, biological corridors, animal migrations (see Box 1.5), wild animal access to critical resources, flow of genetic material) and as a strategy to approach anticipated impacts of climate change (see Box 1.6)
- Re-establish key linkages previously disrupted by political borders (e.g., restoring migrations disrupted by border fences, repopulation of species devastated on one side of a border during war)
- Enable an increase in the size of land under ecologically sustainable management
- Ensure appropriate use of marginal land in border areas to promote economic development and prevent environmental degradation (e.g., safari hunting, transhumant pastoralism)
- Reduce transboundary threats to promote sustainable use of natural resources (e.g., through collaborative control of resource exploitation and trade, control of invasive species, integrated river basin management, fire management, livestock and range management for transhumant pastoralists)

Social and Cultural Opportunities

- Facilitate formal contact and cooperation between divided communities, renewing cultural ties that have been severed by the boundary
- Help to legalize cross-border movement
- Strengthen marginalized groups located in border areas
- Increase opportunities for communities through improved social security and welfare, for example by strengthening of community property rights and increasing natural resource value and income-generating options for communities

Economic and Financial Opportunities

- Exploit underused tourism potential for economic development (e.g., development of multi-country destinations to increase the variety of attractions, or use of infrastructure such as an international airport in a neighboring country to improve access)
- Make use of existing and developing regional economic opportunities that can provide incentives to invest in TBNRM activities (e.g., spatial development initiatives in Southern Africa)

Box 1.6 TBNRM and Global Climate Change

Although Africa contributes relatively little to global climate change in terms of gas emissions, it is extremely vulnerable to it (Biodiversity Support Program 1992). Climate change predictions suggest profound changes in Africa, affecting water resources, food production, human health, desertification and coastal zones. The frequency of extreme weather events—particularly droughts and floods—is likely to increase. A synergy of land-use and climate change will exacerbate desertification (Intergovernmental Panel on Climate Change Working Group II 2001).

While wild species and natural systems have evolved in fluctuating conditions and have a certain amount of resilience and adaptability, they require space and time to adjust. Some of the space they need is across international boundaries. For example, in extreme weather events such as floods and droughts, ranging and migrating animals need temporary access to areas with suitable conditions for them. Temperature rise will cause more permanent altitudinal shifts of species and vegetation types up slopes, mountains, escarpments and river valleys (if plant and animal species can disperse and re-establish fast enough and maintain complex ecological interrelationships). It is therefore very important to maintain landscape linkages—along temperature and rainfall gradients, among different vegetation types in a landscape, and along critical corridors to refugia from extreme events—so that species have space to adapt to these changes. Ecotones and vegetation boundaries are particularly important areas.

As natural systems and species come under increasing stress from climate change, they will be more vulnerable to other stresses. For example, coral is more susceptible to bleaching from temperature rise if it is also stressed from other problems such as sedimentation, pollution and physical damage from tourists or dynamite fishing. Wildlife suffers more from extreme weather conditions if it is already confined in marginal areas and competing with livestock. Climate change is likely to cause profound changes in agriculture practices and settlement patterns. Natural systems will have to contend not only with existing human pressures and climate changes, but also with new pressures caused by climate change-induced alterations in land uses. Loss of genetic diversity in wild species further reduces chances for adaptation and acclimation. Natural resource managers should work to relieve stresses on natural systems wherever possible.

Some countries in Africa have already prepared climate change adaptation plans (e.g., Uganda; see Bwango *et al.* 2000). Since changes to natural systems and species distribution will occur across boundaries, it will be important to expand these plans to include trans-boundary elements. Natural resource managers should stay abreast of climate change prediction developments and early signs of climate change, and collaborate across boundaries as appropriate following the recommendations above to maintain ecological linkages and alleviate stresses. It is important to keep options open now for possible drastic changes later this century.

(with contributions from Kate Newman, Lara Hansen, Stephen Kelleher and David Olson, WWF-US; Barend Erasmus, University of Pretoria; and Peter Jones, University of Edinburgh)

- Increase opportunities for community-private sector collaboration and income-generating options for communities
- Use tourism development to fund conservation
- Benefit from politically correct “green image” for private sector investing in nature-related activities with high transboundary profile
- Enhance opportunities for free movement of people, goods, services and money
- Attract additional donor funding based on the opportunities TBNRM offers; tap into regional funding sources
- Channel funds flexibly, to the country/activity that needs them most at a particular time and where the opportunity for management impact will be greatest (e.g., as the International Gorilla Conservation Programme did in the Virungas)
- Make use of potential efficiencies and economies of scale by working across borders: e.g., sharing human, material and financial resources for control of illegal activities, research, monitoring and evaluation

Political Opportunities

- Lay a foundation for deeper cooperation between neighboring communities and possibly nations, which can help to reduce tensions and conflicts, improve security for communities in border areas, and rebuild divided communities
- Promote global recognition of countries’ conservation efforts through the higher profile possible with transboundary management
- In case of armed conflict in a neighboring country, provide as much support as possible to promote sound natural resource management in border areas during and after the conflict
- Enhance transparency, representation and accountability in land and resource use decisions at national level, if international commitments are involved

Institutional Opportunities

- Enhance the capacity of partners across the border to manage resources more effectively, e.g., through sharing of information and experiences, and through training
- Enhance the ability of organizations to respond more rapidly to changing situations (e.g., through joint monitoring)
- Develop structures that can effectively plan and guide sustainable development based on holistic natural resource management

2

The Key
Elements
of the
TBNRM
Approach

The Key Elements of the TBNRM Approach

This chapter outlines a number of elements that are key to the overall transboundary process. It covers stakeholder identification, consultation and involvement; roles of stakeholders; levels to be involved; the need for and type of agreements; organizational and individual capacity; communication; and enabling conditions and constraints for TBNRM.

Many of the issues covered are similar to those that arise in in-country natural resource management (NRM). The transboundary context adds additional challenges and complexities, which are outlined below. It is important to bear in mind that internal (in-country) NRM must still continue even if TBNRM is being added. “Going transboundary” merely adds an extra layer of complexity to an already complicated process. TBNRM takes more time owing to an increase in the number of actors and stakeholders; differences in policy, legislation, tenure and land-use systems; and political situations across borders.

How to Use This Chapter

People considering a new transboundary initiative may find most of the following sections useful.

People already involved in TBNRM may want to dip into sections where they need advice, have problems, want lessons from elsewhere, or want to know how to move on to the next stage. The conclusions at the end of each section provide a quick guide to what is covered.

2.1 Stakeholders and Their Interests

As in NRM, stakeholder participation is an essential element of TBNRM. Although initially it may require a considerable financial and time investment, it ensures that key individuals, groups and organizations are involved in an equitable, democratic and effective natural resource management process. Failure to establish stakeholder involvement risks losing the opportunity to ensure stakeholder ownership of the process, and undermines the long-term viability of the TBNRM initiative. It may ultimately undermine the resource base itself.

In a TBNRM process, the involvement of stakeholders occurs both in-country and across the border. In-country interests, and roles and responsibilities are defined in a parallel exercise in the participating countries. Cross-border exchanges involve key counterpart organizations as well as representatives of all stakeholder groups across the border meeting and establishing a common TBNRM vision. Both in-country and across-the-border interactions should be maintained throughout the process. Although cross-border interaction is somewhat an extension of national processes, differences in culture, language and policy environment, as well as the inevitable increase in the number of parties, may pose additional challenges to collaboration among countries.

2.1.1 Who Are the Stakeholders?

The natural resource base and system of land and resource tenure determine the players to be involved in a TBNRM process. Organizations and individuals laying claim to all or part of the land and resources in various ways (including historical, political, cultural, economical, spiritual) should be involved early in a TBNRM process, so that they have ownership of it. This includes local communities and private landowners. Although it would be ideal to involve all stakeholders, financial and other limitations dictate categorization of stakeholders into those that are critical to the process and others that may have direct or indirect impact on it. It is important to understand who the really important stakeholders are and to analyze the decision and power issues at play in a given situation.

Fowkes (1999) uses the following categories of stakeholder:

- Those who will directly **influence** the outcome because of their mandate or close interest and who will ultimately **inherit** the program once it has been developed; and those who are directly **influenced by** the outcome because of their close interest;
- Those who will **interact** with the developing program, and maintain close contact as it develops, e.g., focal interest groups;

- Those who will give **input**, comment on proposals, submit their views and responses to questionnaires, etc., and who can in turn provide information and perspective; and
- The general public, which may need to be kept **informed**, but may not be directly affected.

Box 2.1 provides a case study involving different stakeholder categories summarized above.

Stakeholder analysis for TBNRM is similar to that for internal NRM, though it is more complex. For information and tools on the latter see WWF (2000), Grimble and Chan (1995), MacArthur (1997) and Byers (2000).

2.1.2 Who Should Be Involved, When and How?

There are no hard rules on who should be involved in a TBNRM process since every situation is different. Stakeholder analysis should take into consideration the prominent and

Box 2.1 Stakeholder Types in the Sangha River Trinational Initiative

The Sangha River Trinational Initiative is a collaborative effort among three central African countries [Central African Republic (CAR), Republic of Congo, and Cameroon], and also comprises four projects located in the three countries. It is located in the Western Congolian lowland forest. The original people of the area are the pygmies (Bavska or BaAka and the Bangombe)—traditionally hunter-gatherer communities. Relatively new settlers attracted to farming, logging, ivory and other prospects have largely displaced the “pygmies” from the forest and are now settled in villages. They are hired by farmers, sport-hunting groups and logging companies and are often underpaid and disadvantaged.

This transboundary initiative seeks to redress shared problems of unchecked hunting quotas and differences in hunting policies, and illegal activities such as diamond mining, hunting for ivory, and bush meat trade. Through the projects, and facilitated and supported by international organizations and joint agreements, the three countries set targets to stem poaching through joint patrols to establish ecological monitoring and research, and to improve communication.

In this particular case, the general population needs to be kept *informed*; donors and international NGOs *give input* to the process; hunting-tourism departments, safari companies and customs officials are to *interact* with the initiative; and the protected area departments, government ministries and local communities are those that directly *influence* and are *influenced by* any outcome—they are the *inheritors* of the process. The BaAka and Bangombe, among others, are historically marginalized stakeholder groups that the process has to take into consideration (Steel and Curran 2001).

Specific examples of stakeholder categories using other case studies are provided in Section 3.2.1.

obvious players as well as those groups whose influence on the resource has historically been marginalized owing to their low level of economic power and cultural and political clout. Implementers should also recognize those individuals and groups that are likely to oppose the TBNRM process or components of it. Although it is difficult to ensure a win-win situation for all stakeholders, it is important to ameliorate perceived threats early on, and endeavor to establish constructive engagement with opposition stakeholders (WWF 2000). Many transboundary stakeholders are close to the natural resources, but others may be geographically far removed from them—for example, foreign donors, potential tourists, and so on. It is also key to avoid a simplified categorization of stakeholders—such as “the local community” or “the private sector”—and to recognize inter- and intra-dynamics within stakeholder groups.

The range of levels involved (Section 2.3) determines the levels of stakeholders to be involved in the process on both sides of the border (e.g., local, district, line ministry, etc.). In addition, each objective within a transboundary initiative should further dictate relevant categories of stakeholders. Some stakeholders can belong in different categories depending on the type of objectives. For example, an objective to reduce illegal trafficking of wildlife products across a border would place customs officers at the borders as stakeholders of “influence,” while an objective to improve communication among protected area managers would place these customs officers in the category of the “need to be informed” public.

Initiators of the TBNRM process will have to explore incentives with key stakeholders in order to promote the idea. Following an assessment and decision on the TBNRM approach, stakeholders should define and clarify individual roles and responsibilities early in the process (Section 2.2).

2.1.3 Establishing Partnerships

Fostering existing partnerships and working relationships is extremely important in the TBNRM process. This includes horizontal relationships, e.g., between villages or resource users across a border, and vertical linkages, e.g., between a village and its district government. In addition to existing relationships, new ones are likely to be required. Early in the TBNRM process, there is a need to determine historical and current relationships among the various stakeholders in-country and across the border. This will highlight any existing tensions and conflicts that may otherwise slow or stall processes.

Constraints to effective partnership building—such as overly centralized planning and decision-making systems, weak community organizations, precarious tenure systems, bad governance and mistrust between central and local government/communities—should be recognized and addressed wherever possible. They should be taken into

account during planning to ensure realistic targets. Hidden agendas and vested interests also should be identified.

Interactions should be promoted among counterpart organizations of participating countries through collegial forums. Such forums should be planned with sensitivity to language, culture and established modes of interaction to explore common interests, set targets and review progress. Trust building, accountability, transparency and equity need to be established and exercised throughout the process (see Box 2.2 for an example of an equity issue). It is important to recognize that although creating and maintaining viable partnerships can be an expensive process, it is a necessary investment of resources.

There are instances where exact or mirror-image counterpart organizations do not exist across the border, hence organizations with similar mandates or those that have the capacity to take on a role may have to be integrated into the process. Where there is a significant disparity between the capacity of an organization and that of its across-the-border counterpart, capacity building should be a priority in order to avoid major imbalances in input and decision-making power (see Section 2.5).

Stakeholder analysis and establishment or strengthening of cross-border partnerships is imperative at the beginning of a TBNRM process. This step should not be viewed as a one-off activity, though; it should be a continuing process that takes likely changes in

Box 2.2 Local Communities and TBNRM

An example of an equity issue caused by the existence of an international border comes from the Nyika plateau on the Malawi-Zambia border. It centers around conflict between traditional transboundary resource management and protected areas created later. Traditionally the local community used resources on both sides of the border, controlled by a chief residing in Malawi. When national parks were established on both sides of the border, community access to traditional resources became restricted. A few years ago the Malawi park introduced a community resource management program for local people living near the park boundary inside Malawi. The project was enthusiastically received by those people, but members of the same community living in Zambia—who, despite their traditional customs, were not allowed access to the benefits—threatened to undermine it. This prompted the consideration of transboundary management as a way to resolve the conflict: the Malawi-based chief initiated efforts (legally and at times reaching beyond what the law allowed) to enable community members on both sides of the border to participate in the utilization and management of park resources in Malawi. He also lobbied the Zambian park authorities to carry out a similar transboundary program.

(John Griffin, pers. comm.)

stakeholder composition into account. Changes could occur, for example, because of changes in the biological resource base, changes in the economic situation (e.g., discovery of minerals and resultant cross-border trade), and changes in the political environment (e.g., refugees moving across a border). New stakeholders should be identified and incorporated in rolling plans; the TBNRM process should remain adaptable and flexible to accommodate this.

Conclusions on Stakeholders and Their Interests

- To ensure sound TBNRM, key individuals, groups and organizations on both sides of the border must be involved in and have ownership of an equitable, democratic, transparent and effective natural resource management process.
- Stakeholder involvement in establishing and working toward a common TBNRM vision occurs in two ways: parallel in-country involvement and interaction across the border. Cross-border interaction poses additional challenges and increases the number of stakeholders, but is key to overall long-term sustainability of the process.
- Categorization of stakeholders, based on their interests, dependence on and power over the resources, helps to prioritize who should be involved.
- Exact mirror-image counterpart organizations may not exist across the border, or they may have different degrees of empowerment and responsibilities, which can present problems.
- Capacity building may have to be a major activity early on in the process to secure balanced input into the process from each country, and to ensure equitable decision-making power.
- It is advantageous to build on any existing transboundary relations or partnerships across the border.
- In interactions across borders, it is important to be aware of sensitivity to language, cultural, political and other differences.

2.2 Roles in the TBNRM Process

Section 2.1 outlined the various types of stakeholders at many levels that need to be involved in TBNRM. Many stakeholders play important roles, contributing to the overall success of the process. This section looks at the roles that individuals and/or organizations fulfill in developing and implementing TBNRM. Five distinct roles have emerged from work done in Africa to date—leaders, facilitators, drivers, champions and implementers. These are outlined in more detail below, after some general points on roles.

It Is Important to Define and Clarify Roles and Ensure That They Are Fulfilled and Respected

Many players are drawn into the TBNRM process at many levels. Government organizations (e.g., government departments, parastatals, universities) have defined mandates and it is usually clear which organizations will need to be involved in TBNRM work and what their roles will be. When joining or being asked to join the process, an organization must examine why it is getting involved, what its mission is, and what it wants from the transboundary process. This allows an organization to define or clarify its role at the outset, which is important for four reasons:

- To develop an internal understanding of its role and where to place emphasis on its efforts;
- To allow the organization to check for any overlap with another organization to avoid confusion or conflict;
- To allow the organization to promote its intended role and impact to external partners and hence be held accountable for fulfilling its role; and
- To ensure that its role is respected.

Organizations such as national or international NGOs usually set their own mandate in that they define their areas of interest and where and how they work. In order to be supportive of government organizations, it is very important that NGOs understand the role they are fulfilling or being asked to fulfill in the TBNRM process—and that they do not usurp roles but rather fill gaps and provide capacity support.

Roles Are Not Always Fixed; They May Change over Time

TBNRM is a dynamic process; as various stages are completed and momentum builds or falls it may be necessary for roles to start, change or cease over time. In most cases the thrust of the input remains broadly similar but is tailored to respond to emerging issues or new challenges. In some cases, however, it may mean that an organization or individual ceases to fulfill one role and either drops out or moves into another specific role. If this is the case it is very important that the new role is clearly articulated and communicated for the reasons outlined above.

Roles Are Complementary and Implemented Simultaneously

If roles have been clearly defined there should be no conflicting overlap and they should be complementary. Complementarity includes the existence of parallel roles across borders, where partners on each side of the border play similar roles in their own countries. In a complex process the various roles are implemented simultaneously. The challenge

here is for players to recognize which components of the TBNRM process are milestones—i.e., need to be put in place before other activities can flow—and to understand their role vis-à-vis these milestones. Only in this way can the TBNRM process proceed efficiently with players kept engaged in their roles. It is also worth noting that an organization or individual can fulfill multiple roles at the same time.

External Organizations Must Let National/Local Organizations Take over When They Can

Because the TBNRM process can cut across conventional lines in terms of thinking/mandates/roles and has the added dimension of needing to work across a border (or borders), in many cases external organizations are often heavily involved in the initiation of the process. An external organization in this case may be a donor or an NGO. While it is recognized that these external organizations have an important role initially, it is important that as soon as possible national or local organizations be given the roles that they can implement. This may also apply when a government department from one country works with its counterpart across the border, particularly in cases of unequal capacity (see also Section 2.5).

Creating a Process That Is Not Just Dependent on Individuals Presents a Challenge

In complex multicomponent undertakings often a few individuals emerge as key fulfillers. These players grow into a mutual-support group that holds the main “vision” for the TBNRM process. While this is an important mechanism for moving the process along, this group has to be very sensitive:

- To ensuring that it is not excluding other mandated groups;
- That its individual members are cognizant of their role on behalf of their organizations;
- That individual members are keeping their organizations abreast of ideas, direction, future commitment, and so on; and
- That by not following the above three points the group may jeopardize the longer-term sustainability of the overall process.

Only in this way can the roles of organizations be emphasized and not hijacked by individuals’ enthusiasm or professional interests.

Some of these general principles are discussed further in Margoluis *et al.* (2000).

Five types of role are outlined below. Note that not every type of role must be played in every TBNRM project for it to succeed. Especially in smaller projects, some of the roles may be merged, and one person or organization may take on multiple roles. Roles and responsibilities should be defined and clarified early on in the process.

2.2.1 Leaders

Leaders are vanguards—they show the way and anticipate progress. Leaders need to “hold the vision” for what a TBNRM process is trying to achieve and to develop a strategy that moves toward this goal. To be successful, leaders need to be proactive and they need to get buy-in—i.e., gain acceptance—from a critical mass of stakeholders in order to get the momentum for the process underway. They may also need to have an official mandate to play their role effectively (See Box 2.3). Leaders need to have commitment to the process and be prepared to be involved over a long time period. They need credibility within the sector. Most importantly they need to recognize that TBNRM will need a team of players. They should build this team with players that bring relevant skills and expertise to the process. They should identify where there are gaps in the team and fill them, either with new players or by providing the input themselves. And finally they should foster team spirit and encourage individual team members, tracking progress and ensuring communication within the team.

Regional institutions are well placed to be leaders in the TBNRM process—their regional mandates can often help to overcome some of the complexities of working across borders. Regional protocols can in theory provide an umbrella for TBNRM, though from the project case studies, it appears that regional organizations have taken very limited advantage of opportunities to instigate TBNRM under regional protocols. National organizations are less well placed, in part because of their more limited mandates, but also because of the problem of perceived status or lack of parity that a national organization has with others within the system. This can be a very big stumbling block when needing to work across sectors.

Box 2.3 An Example of a Lead Role Undertaken by a Government Agency

In Mozambique the Forestry and Wildlife Directorate was named the lead agency in the development of the Gaza-Kruger-Gonarezhou Transfrontier Conservation Area (TFCA). The Directorate worked at getting the concept of a TFCA on the political agenda, and getting international agreements signed. It also managed to re-establish a field presence in the protected areas within the TFCAs, and assist with some important policy and legal work in terms of forestry and wildlife regulations and policy, and policies for communities and the private sector. The fact that there was a dedicated process for TFCAs was very important. However the Directorate did not really have a mandate for broader ecosystem-based planning and the associated sustainable development needed for creating the TFCA, as this falls within a number of different government agencies. In response, the establishment of a TFCA Secretariat is proposed, and it is under consideration to bring this secretariat under the Ministry of Tourism to lead the development of inter-sectoral planning frameworks.

(Rod de Vletter, pers. comm.)

At a local level, leaders interested in promoting TBNRM may be in place—their primary interest often being in resurrecting traditional resource use and trading agreements among communities that have been disrupted through the imposition of national borders. There is, however, a limit to the extent local leaders will be able to influence the bigger picture.

At present much of the leadership in promoting TBNRM is coming from external organizations that are also fulfilling the roles of facilitators and drivers. This may not be a problem in the early stages of the process but at some point internal leaders have to emerge if the whole process is to root itself more sustainably.

2.2.2 Facilitators

Facilitators make things go more easily. Facilitation can cover a wide range of activities from originating the concept, through initial coordination and neutral brokering, and then fulfilling a continuing neutral role—mediating, brokering of conflict resolution and ensuring fair and equitable treatment by all players. Facilitators can also bring to the table technical capacity, capacity-building support and financial resources. They can often make meaningful contributions to developing climates (national and international) conducive to investment in TBNRM.

In order to fulfill their role, facilitators need to have a strong and varied network of partners to be able to catalyze participation. They need to recognize the relevance of establishing strategic (often non-traditional) partnerships. Facilitators need not necessarily have been long-term players—in some cases already knowing many of the players can help but in other cases it can constrain innovation as players are mindful of the partnerships already built up over many years. However, to be effective, facilitators must be able to provide sufficient time and flexibility to build trust; and they should maintain neutrality. Facilitators need a certain degree of independence to be able to work effectively but this should of course be within the overall agreed-upon larger context of the TBNRM process. Good facilitators should have good networking skills, good communication and interpersonal skills, good listening skills and open-mindedness, good analytical skills, good vision but also attention to detail, good technical understanding of the subject matter, and uninflated egos.

To date this role mainly has been fulfilled by NGOs and international projects (see Box 2.4 for examples). This is primarily because these groups have broader than national-level mandates and are thus in a position to be able to create platforms or venues that bring various national organizations from several countries together. National/local institutions are constrained by their mandates and have to go higher up to get authority formally to instigate such activities.

Box 2.4 Examples of Facilitators

The International Gorilla Conservation Programme (IGCP)—which at the request of the protected area authorities of the Democratic Republic of the Congo (DRC), Rwanda and Uganda fulfills the central role in establishing a framework for regional collaboration toward the goal of conserving the mountain gorillas and their habitat in the Virunga-Bwindi region (Lanjouw *et al.* 2001).

The Global Environment Facility (GEF) Cross Borders Biodiversity Project working to conserve the Minziro-Sango Bay Forest Reserves across the Tanzania-Uganda border—which is primarily implemented through national agencies but which also has a regional component (agreed on by the respective natural resource management agencies) that specifically supports studies and fosters regional linkages (Rodgers *et al.*, 2001b).

In both these cases the project regional director is the prime facilitator supported by national-level project staff. These two organizations have a very clear mandate to work as facilitators.

In some cases an NGO may originate the TBNRM process and then foresee itself continuing to fulfill a facilitation role. This is illustrated in the Kilimanjaro Heartland case study, where the African Wildlife Foundation (AWF) on the border between Kenya and Tanzania identified the area to work through its own internal selection process and will continue to provide the motor for moving regional conservation planning forward (Muruthi and Frohardt 2001). In reality it may be quite a fine line between NGOs/international projects couching their interventions in terms of facilitation but in fact fulfilling the role of leaders or drivers in the process. Finally, there are also instances where a government agency has fulfilled the role of facilitator, for example the KwaZulu-Natal Parks in the development of the Maloti/Drakensberg Transfrontier Conservation and Development Area.

2.2.3 Drivers

A driver provides resources or exerts pressure to promote TBNRM, without necessarily becoming directly involved. Drivers can play a very important role in ensuring that TBNRM processes are initiated and move forward. A politician could be a driver by exerting pressure without becoming visibly directly involved, for example. NGOs and donors can be drivers, providing funding for TBNRM projects. Financial inputs are needed for TBNRM and can greatly fuel the process.

Occasionally the agendas of the governments, donors or NGOs may not dovetail exactly to the aspirations of the primary stakeholders—instead they gain prominence or even distort the process. Facilitators can be very important in encouraging donors and NGOs to fulfill their roles so that they are perceived as positive partners in the TBNRM process.

2.2.4 Champions

Champions promote a cause. They are people who can pick up an idea (sometimes originate it), advocate for it and continue to support it once it gets going. Champions need to have a high profile, be charismatic, operate in a sphere of influence, be respected and see the big picture. They do not necessarily have to be technically involved in implementation.

Players involved in TBNRM processes talk about the role for champions at all levels as a crucial one. Interestingly, however, this is the one key role that has been least well articulated or described in the project case studies. There may be several reasons for this:

- Facilitators may have been fulfilling this role under the guise of facilitation;
- Facilitators may have not given enough attention to identifying champions and getting them involved;
- Organizations in Africa may be more used to the concept of patrons who fulfill a more benign, less aggressive supporting role; and
- Champions may be most easily found at the national level and there may be few individuals with the appropriate stature who can reach across the border(s).

In the case of TBNRM, champions are particularly important in influencing potential players that have not traditionally linked the importance of sound natural resource management to their arenas. (Other sections of this document will discuss the importance of mainstreaming natural resource management and biodiversity conservation into broader development planning—which is where champions have a major role.)

2.2.5 Implementers

Implementers carry out the detailed work of the various steps of the process. The bulk of the effort involved in TBNRM processes includes collecting and analyzing data, identifying threats and opportunities, planning, piloting and implementing responses, monitoring and evaluation, creating strategic alliances, etc. These activities are described in greater detail in other parts of this document.

Implementers often work on component parts of the process at certain levels. They do not each need to understand or keep track of all aspects of the overall picture—but they do need to recognize that their activities are important steps in achieving the overall picture. For example a park warden will ensure that a ranger in the Virungas National Park in DRC is assigned to collect data about gorilla movements, that the data are fed into a regional database allowing the warden to make management decisions to meet the objectives of a regional gorilla conservation strategy. The chairman of a committee

might establish a working group to tackle the specific task of reviewing policies with a view to harmonization. The director of a protected area authority would ensure that a minister has all the appropriate information and a briefing before a meeting that will discuss TBNRM progress. A researcher will work with communities to design a monitoring program and then train individuals to be data collectors. These are all pieces of the group effort.

In the initial stages, organizations that work as the facilitators of a TBNRM process often fulfill also the role of implementers—and in some cases continue in these dual roles. This is particularly the case when an initiative is specifically designed to work on TBNRM and an organization is appointed to coordinate and implement the many facets of it.

Conclusions on Roles in the TBNRM Process

- Roles need to be well defined and players should respect them.
- Roles can change over time because TBNRM is a dynamic process.
- Roles should be complementary to avoid overlap; an organization/individual can fulfill multiple roles at the same time.
- NGOs should avoid usurping the roles of others, and focus on filling gaps and providing capacity support.
- External organizations must let national/local organizations take over when they can.
- The TBNRM process should not be dependent only on a few individuals to ensure the longer-term sustainability of the overall process.

Different roles for successful TBNRM (for individuals or organizations):

- **Leaders** are vanguards who show the way. Regional organizations are well placed to lead but have not done much so far. Local leaders are well placed, but are limited in how much they can influence the bigger picture.
- **Facilitators** fulfill a neutral role coordinating, brokering and resolving conflicts. NGOs and international projects often facilitate because their mandates are not limited by national-level considerations.
- **Drivers** are key to ensuring that TBNRM processes are initiated and move forward. Politicians, NGOs and donors can be drivers. Drivers should ensure that their agendas are compatible with the aspirations of key stakeholders.
- **Champions** are high-profile, influential people who promote TBNRM on multiple levels. They are particularly important to get messages about relevance of sound natural resource management integrated in a broader context.
- **Implementers** ensure the detailed implementation of the process. They do not need to know all aspects of the process, but they do need to recognize that their activities are important steps to achieving the overall vision.

2.3 Levels in Transboundary Collaboration

2.3.1 The Different Ranges of Levels

There are many different possible ranges of levels of TBNRM collaboration, each appropriate for different situations. At the simpler end, collaboration occurs purely at a local level. For example, two protected area managers and their staff across a border may collaborate over fire management programs, joint surveys and limited joint law enforcement activities (e.g., exchange of information about illegal resource use). Similarly, a community that is divided by an international border, but whose traditional management systems have not been eroded by international politics, may continue to manage natural resources across the border at a local level with no need for higher-level intervention.

The amount that can be achieved at the local level is limited, however. For more ambitious TBNRM goals, a wider range of levels of collaboration is necessary, along with the involvement of multiple levels of authority (see Figure 2.1). For example, authority to undertake joint law enforcement patrols may have to come from forestry or wildlife department headquarters in both countries, or even the ministries responsible for foreign affairs. Development of a transboundary wildlife corridor involving multiple forms of land use is likely to involve different government ministries on both sides of the border, and local or national land-use planning authorities if they exist. Development of international nature tourism as part of a regional economic development strategy is likely to involve multiple government ministries including those dealing with finance, planning, commerce and tourism, immigration and customs, transport, and natural resources—as well as regional organizations if they exist [e.g., the Southern Africa Development Community (SADC)].

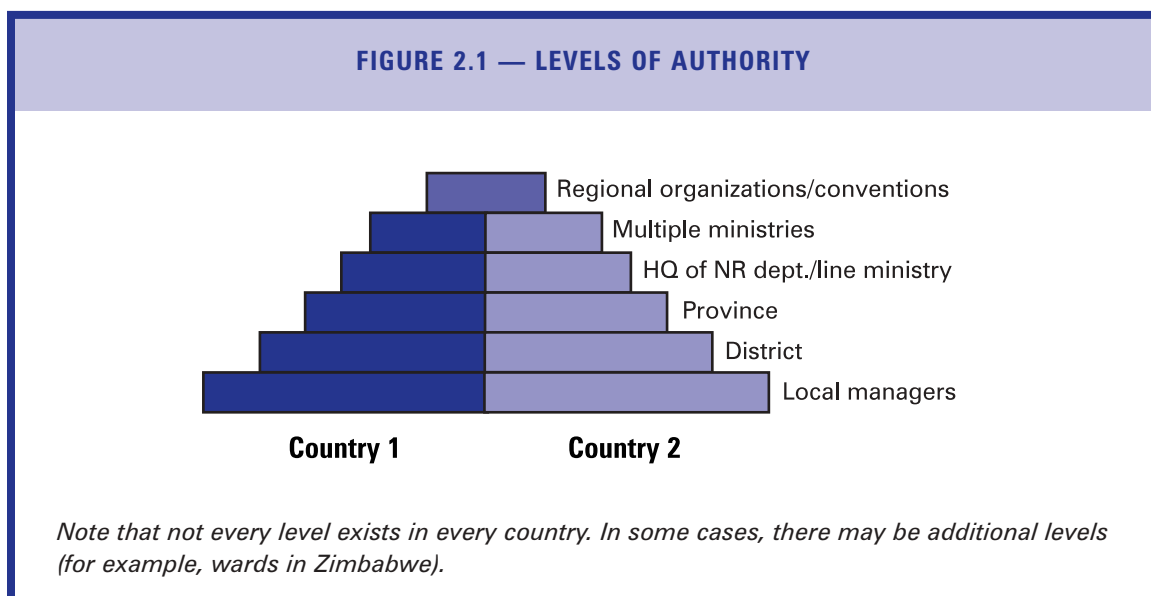
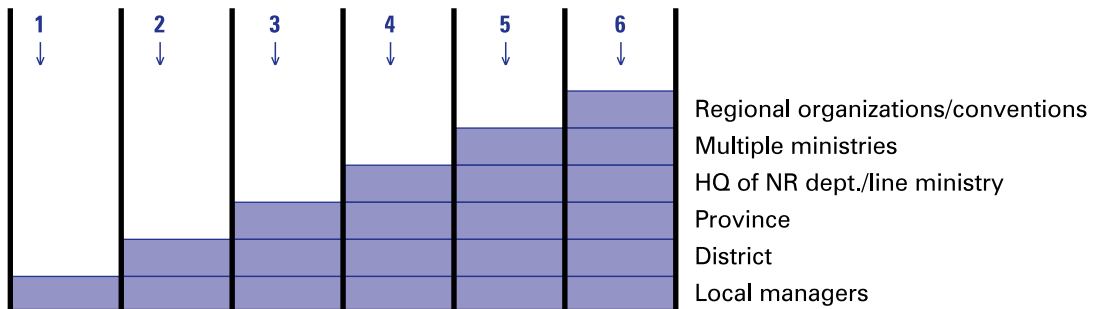


FIGURE 2.2 — POSSIBLE RANGES OF LEVELS OF TBNRM INTERVENTION



Sometimes levels in different countries do not correspond, or they have different degrees of empowerment. This can be a constraint to transboundary collaboration, if people have difficulty determining the appropriate level to work with across the border, or need to work with more than one level.

Within this structure of authority levels (shown horizontally), Figure 2.2 indicates with vertical lines the possible ranges of levels at which TBNRM interventions may operate at a particular time. For convenience, only one country is shown, but this would obviously apply to both/all countries involved.

The range of levels increases from 1 to 6. Note that when it is necessary to involve high levels, it is key to ensure that the lower levels also remain involved in the overall transboundary process. The level most dependent on the resource, which is often the local level, is particularly important. Ultimately TBNRM is implemented at the local level, with support as necessary from higher levels. It is therefore very important to ensure local-level involvement, buy-in, and ownership during planning and implementation, however many levels are involved in the process (see also Section 2.1).

This is not always easy to achieve, especially in transboundary projects covering large geographical areas, which may have a considerable number of people living in remote, scattered communities in border regions. Ensuring their participation requires extensive resources and takes time. Pragmatically, it may not be possible to involve every community in every decision along the way. However, it is important to ensure sufficient participation and representation in key decisions that affect people directly or indirectly, and enough time to consider the implications beforehand.

If adequate participation does not occur, there is a risk that upper levels will exert influence and control that is not in the best interests of local communities or private landowners. At worst, TBNRM can present an opportunity for corrupt national-level powers to gain personally from TBNRM benefits. Donors, the private sector and NGOs can also drive the TBNRM agenda in a way that usurps local interests. Two-way transparency and accountability are very important.

It is not necessary to operate at the same range of levels for each transboundary objective. For example, control of illegal hunting may be done locally at community or warden level, or by this level in collaboration with district officials, and perhaps with the involvement of wildlife department headquarters. The creation of a border post to enable border crossings by tourists, however, is likely to be done at the multiple ministerial level, with the involvement of lower levels such as the district level.

Each individual action to achieve a transboundary objective does necessarily involve every level within the range of levels the process is operating at. For example, the passing of legislation to create a new border post in the example above would be done at the ministerial level, once the need for the border post has been discussed and proposed by lower levels. The lower levels benefit, but are not involved in the legal process itself.

The levels of formal authority and decision making shown in Figure 2.2 mostly involve government, and traditional authorities at the community level. Other actors such as NGOs, the private sector and academic organizations may be involved at various levels, and often move flexibly across levels during the TBNRM process. While communities may have inputs at higher levels, they are most frequently involved at the local level for obvious reasons (see Section 2.1). Roles that different organizations can play were discussed in greater detail in Section 2.2.

2.3.2 Deciding on the Appropriate Range of Levels

There is no single optimal, predetermined, range of levels at which to work. Each transboundary situation is different, with its own combination of ecological, social, economic, political and institutional factors. Leaders in each transboundary situation have to decide what the best range of levels is for them at a particular time in the process. It is important to have a flexible approach, and to be ready to move up or down the range of levels as appropriate. For example, it may be necessary to get the headquarters of the two immigration authorities on either side of a border involved to agree to establish a new border crossing (range of level 5 in Figure 2.2). Once that is done, it may be possible to return to working at a local level (range of level 1). **There is one general rule: work at the lowest range of levels possible to achieve the goals set for the transboundary collaboration.** This is where efficiency will be greatest. Another example is provided in Box 2.5.

Box 2.5 Good Neighbors Meetings

Uganda and Tanzania presently have noncompatible logging policies. This has proved an issue within the Minziro-Sango Bay Forest Ecosystem. The current ban on harvesting timber in Sango Bay Forest, Uganda, has triggered more harvesting of trees on the Tanzania side of the forest in order to meet the heightened demand for timber in Uganda. The situation also encouraged dealers to move illegally cut Ugandan timber through the forest into Tanzania where it was “hammer stamped” to become legal and exported back to Uganda.

In December 1999 the Cross Borders Biodiversity Project hosted the first of a series of cross-borders “Good Neighbors” meetings between the two sides’ district officials including district commissioners. Cross-borders biodiversity management was on the agendas. The meetings brought together key sectors that are relevant to conservation and sustainable development on both sides of the border, including immigration, trade, revenue authority, livestock, agriculture, security systems, natural resources and environment. The meetings discussed, among other things, the need to control and regulate timber movement across the borders. While Ugandan officials acknowledged that much timber was moving from Tanzania into Uganda, they also noted that the timber was allowed to enter the country without any restrictions imposed by Tanzania. The meeting brought together a common understanding of regulating agencies across the borders, and steps to take in implementing collaborative approaches to control movement of illegal timber. Results to date indicate a positive impact as the amount of timber transiting the border has decreased. Field patrols suggest that the number of illegal pit-saw sites has decreased significantly. District-level Tanzanian authorities have requested timber movement to Uganda to be temporarily restricted. Forest management bodies have approved a complete ban of pit sawing in the forests, pending the harmonization of logging policies and harvesting regimes.

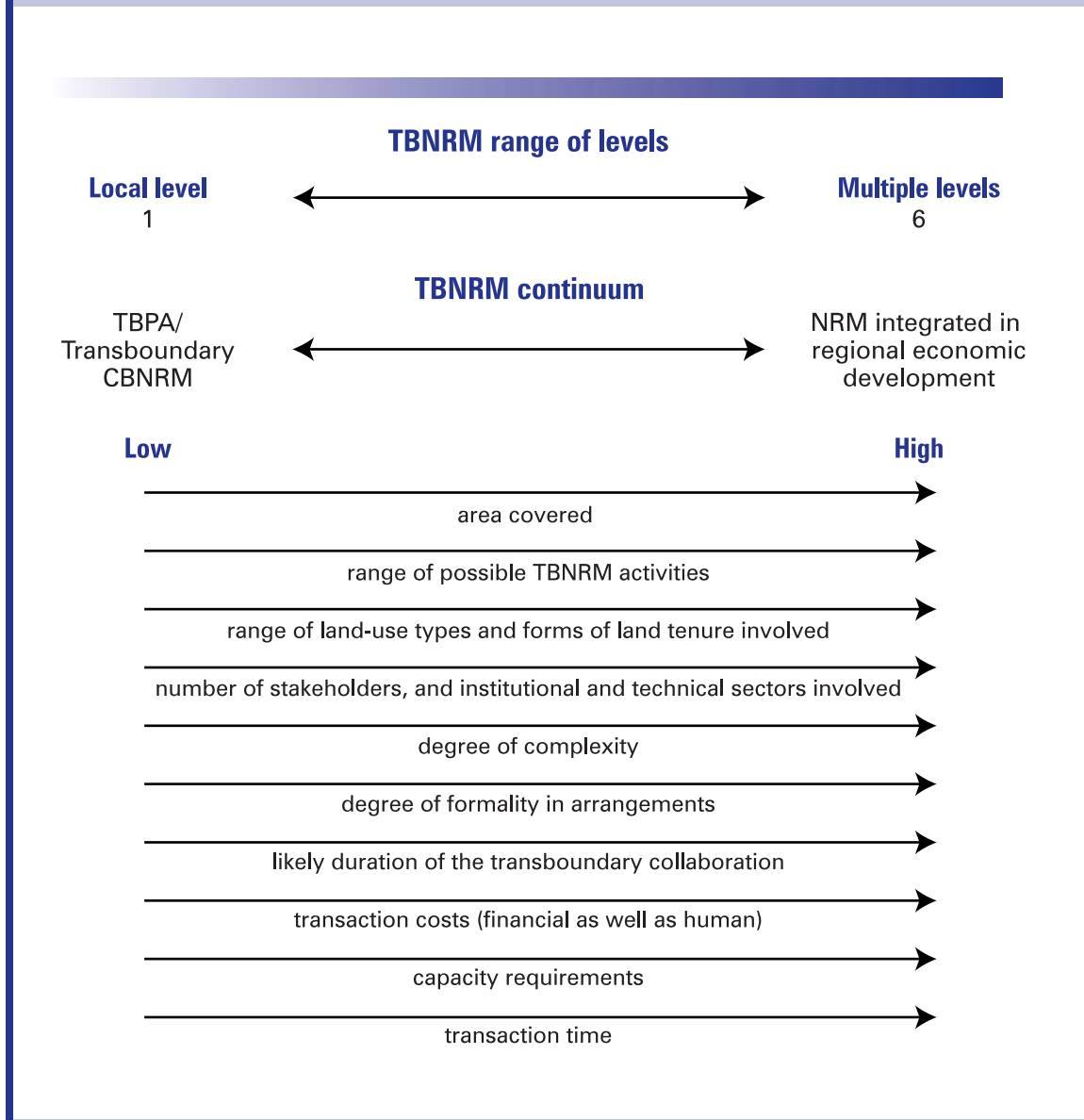
This example shows what sort of action that can be effectively achieved at the district level, while waiting for formal policy harmonization to be completed at the national level.

Source: Rodgers et al. (2001b).

When working at lower ranges of levels without involving the highest levels, it is still very important to keep people at higher levels on both sides of the border informed of developments, achievements and constraints. They do not need to know all the details, but should know the basic facts. People do not like to be surprised by learning about things indirectly rather than through their direct chain of command. This can be particularly sensitive because of the transboundary nature of the work.

When deciding at which range of levels to work, it is important to understand the benefits and constraints of the different ranges. Figure 2.3 summarizes some of the main variables affected by the range of levels, and the way the variables may change. Note that these trends are not hard and fast, but are general observations. Figure 2.3 builds on the continuum concept presented in Figure 1.1.

FIGURE 2.3 — SOME VARIABLES AFFECTED BY THE TBNRM RANGE OF LEVELS



There are advantages to working at a complex range of levels, as shown above. A greater variety of transboundary activities may be possible. Larger geographical areas generally can be covered, with a wider variety of land uses and forms of land tenure. Agreements are more likely to endure as they are more formal. However, for TBNRM to be successful with a more complex range of levels, a larger number and variety of stakeholders and actors must be involved, coming from a broader range of institutional and technical backgrounds (see Section 2.1). The degree of formality of transboundary agreements tends to increase as range of levels increases (see Section 2.4).

There are therefore also disadvantages to working with a complex range of levels. Transaction time greatly increases as higher levels of government and a greater number of stakeholders become involved. Financial costs increase, including communications and costs of meetings. There are also other types of costs, including consequences of channeling scarce management resources into TBNRM. This can be to the detriment of domestic, or internal, natural resource management—often essential ongoing work that still has to be done in addition to transboundary commitments.

Based on input from participants at the pan-African TBNRM workshop (April 2001), Table 2.1 shows some of the advantages and disadvantages of working at each level, and Box 2.6 shows how the collaboration between Botswana and South Africa over the management of the Gemsbok and Kalahari Gemsbok National Parks increased the range of levels involved over time.

2.3.3 Choosing the Entry Point for Transboundary Collaboration

There is no rule about the **level or range of levels** at which to start. The entry point may well be opportunistic: where a particular champion (see Section 2.2) is working, or where initial dialogue and collaboration is easiest. It is often advisable to build on existing non-transboundary activities in each country. It may be that once the transboundary process is started, there is a rapid move up or down the range of levels as discussions develop, scope of possible collaboration becomes clearer, and constraints are identified and weighed against opportunities. Table 2.2 shows entry points for some existing TBNRM projects.

There is strong advice about **how** to start. If initial discussions start above the local level, it is very important to bring discussions down to lower levels as soon as possible, and have stakeholders at these levels fully involved very early on. This is particularly crucial for the local level. There is also a need for iterative dialogue—going back and forth between issues and stakeholders—within a country and across the border. Communication is very important throughout the process, but it is particularly crucial in the early stages (see Section 2.6).

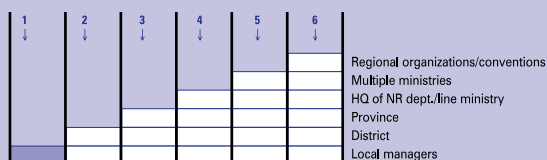
TABLE 2.1 — OPPORTUNITIES AND CONSTRAINTS ENCOUNTERED AT DIFFERENT LEVELS

Level	Opportunities	Constraints
Local	<ul style="list-style-type: none"> • Empowerment, ownership and buy-in of resource managers • Can be high motivation to collaborate owing to high dependence on resource • Benefits may stay at local level • Application of indigenous knowledge systems, combined with appropriate scientific techniques if introduced by extension workers 	<ul style="list-style-type: none"> • Often limited capacity for implementation and limited empowerment from higher levels • Enabling conditions may not exist, e.g. necessary legislation • Duration mainly dependent on personalities
District/ province	<ul style="list-style-type: none"> • Good understanding of local issues; multisectoral approach • Greater decision-making power than local level • Better connected to higher levels than local level • Better capacity to resolve local conflicts than national level has 	<ul style="list-style-type: none"> • Dependent on the personality and interest of district commissioner • Power often restricted by limited decentralization, particularly for making internationally significant decisions • Higher transaction costs than local level
HQ of natural resource dept/line ministry	<ul style="list-style-type: none"> • Greater capacity, planning and decision-making power (decisions more binding than at lower levels) • Key role in policy/legislation (enabling conditions) • Better access to donor resources 	<ul style="list-style-type: none"> • Greater bureaucracy, costs and delays in decision making • Incentives for TBNRM are less direct than for lower levels, since there is less direct dependence on resources • Risk of political interference • Risk of national agenda sidelining local priorities
Multiple ministries	<ul style="list-style-type: none"> • Integration of natural resource management/conservation with general development • Better buy-in and collaboration with other sectors • Broader opportunities, greater chance of being more sustainable economically 	<ul style="list-style-type: none"> • Risk of natural resource context becoming lost in multiple agendas and visions across many sectors • Risk of national agendas sidelining local priorities • Greater bureaucracy, costs and delays • Less dependent on resources
Regional organizations/ international conventions	<ul style="list-style-type: none"> • Provides framework for international agreements and collaboration • Helps to clarify policy/strategy • Greater access to expertise • Greater awareness of resource value • Greater sharing of experiences/knowledge/responsibility 	<ul style="list-style-type: none"> • Lack of appreciation of local values • Time-consuming, bureaucratic, costly • Generally least dependent on resources

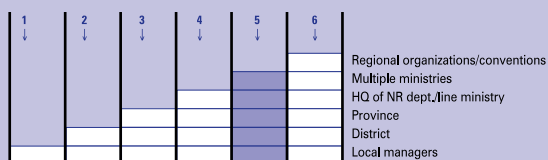
Box 2.6 Kgalagadi Transfrontier Park

Informal collaboration occurred from 1948 at a local level between wardens of the Gemsbok National Park in Botswana and the Kalahari Gemsbok National Park in South Africa. The two areas functioned as one ecological unit without fencing and with free movement of wildlife. Limited cooperative activities included joint monitoring of large animals. In early 1992, the two countries decided to make the arrangement more formal to enable a wider range of benefits. This led to the involvement of various ministries at the national level (e.g., those responsible for wildlife, customs, immigration) and the attorneys general to harmonize relevant policies and legislation. A formal agreement was signed by the two presidents establishing the Kgalagadi Transfrontier Park in 1999.

1948–1992



1992–1999



The arrangement comprises the following:

Bilateral agreement between the two countries

(level = multiple ministries, signed by the presidents)

- sovereign equality and territorial integrity recognized and maintained
- national laws applied but harmonized
- authority devolved to the two national parks departments
- Kgalagadi Transfrontier Park Foundation established

Kgalagadi Transfrontier Park Foundation

(levels = line ministries, provincial government/member of parliament, national parks departments)

- enabled to receive funds for management and disburse to the national parks departments
- empowered to monitor the implementation of the management plan

Record of understanding between the two national parks departments

(level = headquarters of natural resource departments)

- detailed management plan provided for
- joint Kgalagadi Management Agency created

Kgalagadi Management Agency

(level = local managers)

- management plan developed and implemented, covering wildlife and ecosystem conservation, sharing of expertise, harmonized tourism development, revenue sharing, promotion of economic opportunities for adjacent local communities, compliance with international laws to protect the environment, and integration of managerial, research, marketing and other functions as much as possible

Sources: Sandwith *et al.* (2001, Appendix 5.5); Griffin *et al.* (1999).

TABLE 2.2 — ENTRY LEVEL FOR A SELECTION OF TBNRM PROJECTS IN AFRICA

Entry level	Examples	Initial reasons for collaborating
Multiple ministries	Caprivi/ Chobe/ Okavango/ Hwange/S. Zambia	Tourism development
Headquarters of natural resource department/line ministry	Gaza/Kruger/Gonarezou	Wildlife conservation/restoration
	“W” Park	Control of illegal hunting
	Virungas	Conservation of mountain gorillas
Province	Maloti-Drakensberg	Threats to shared biological and cultural resources
District	Minziro/Sango Bay	Sustainable use of biodiversity
Local	Gemsbok/Kalahari Gemsbok (wardens)	Wildlife research
	Nyika/Nyika (community)	CBNRM

Conclusions on Levels in Transboundary Collaboration

- TBNRM is more efficient if it involves the simplest range of levels possible to achieve the goals.
- There is no rule about the level or range of levels at which to start.
- TBNRM is probably more effective if it is not driven from the top.
- Involvement of the local level is essential from the start, since this is where natural resource management occurs.
- The amount that can be achieved at local level only is limited; more ambitious TBNRM goals require involvement of a wider range of levels.
- Flexibility is essential on the range of levels of intervention; be prepared to involve higher levels when needed, but come back down to simpler ranges of levels again whenever possible.
- Communication is essential within and among levels in each country, and with the equivalent levels across the international border.
- Within the range of levels implementing TBNRM, all the levels should participate in key decisions that affect them directly or indirectly.
- It is key to determine the appropriate level(s) to work with across the border—sometimes levels in different countries do not correspond directly.
- Different transboundary objectives may be implemented by different ranges of levels.

2.4 Agreements

Transboundary interactions can take many forms, ranging from very informal relationships among local resource users (e.g., local trading agreements) to international treaties governing resource management programs between countries (e.g., joint river basin management) (Singh 1999; Zbicz 1999). These agreements encapsulate the purpose, principles and programs for interaction across boundaries. At the global scale, there are many examples of such agreements, some of them just symbolic. These include one of the earliest agreements for transboundary protected areas—i.e., the 1932 Waterton/Glacier International Peace Park in the Rocky Mountains of Canada and the United States. In general, agreements can increase the sustainability of outcomes by making the process less dependent on the immediate actions of individuals.

In Africa, on the other hand, despite there being many instances of transboundary natural resource management opportunities and needs, there are relatively few examples of negotiated agreements. Notable exceptions in the field of biodiversity and conservation areas are the recent designations of transfrontier conservation areas by countries within the Southern African Development Community (SADC), e.g., the Maloti-Drakensberg Transfrontier Conservation and Development Area MoU signed on June 11, 2001. A general treatment of agreements for the development of transboundary protected areas is contained in the IUCN/WCPA Protected Area Guidelines series (Sandwith *et al.* 2001).

Agreements can take many forms, and there is no ideal form or blueprint. The specific terms are likely to depend upon the prevailing ecological, social, economic and political context, the objectives of the stakeholders, the specific institutional frameworks, and scale. The general guidance provided in this section is intended to create awareness of the diversity of issues to bear in mind when embarking on transboundary agreements, but clearly, it must be adapted to each specific situation. Note that this section describes what is involved, but not how to write an agreement, which would require specialist legal input.

2.4.1 Reasons behind TBNRM Agreements

It may sound obvious, but the success of any agreement is directly related to the outcomes that result from the agreement. Negotiating agreements is costly in terms of time and effort, and the purpose of the agreement should be clearly identified before embarking on this process. There are a variety of reasons why transboundary agreements are entered into, including the following:

- Resolving disputes over access to resources;
- Developing joint economic opportunities, e.g., for tourism;
- Fostering international cooperation;

- Jointly seeking international donor assistance;
- Dealing with or avoiding transboundary environmental impacts;
- Regulating cross-border movement of people and goods;
- Restoring and maintaining peace;
- Enhancing natural resources or protected areas management;
- Fostering exchange visits and capacity-building; and
- Facilitating research.

On the whole, agreements are necessary in situations where either party would be unable to achieve a necessary or desirable goal without the participation of the other. Where there is a difference of opinion or conflicting goals, it may be more difficult, though possibly no less necessary, to promote some form of agreement. There are some cases, however, where agreements have been entered into that do not achieve these objectives. There may be a variety of reasons for this, including a lack of understanding or participation in the formulation of agreements by various stakeholders; a lack of political will and commitment at a high level, which prevents effective cooperation at a lower level; no real need for transboundary activities at the level of resource managers; or a lack of resources committed to implementing the agreements. A sustainable agreement is usually only possible when the net benefits exceed the net costs for all parties involved.

Some form of agreement is usually necessary as a means of declaring common interests, stating guiding principles, identifying objectives or ensuring commitment among all parties. Agreements ensure that the parties are clearly identified and that their roles and responsibilities are defined. They enable a holistic focus on the broad issues involved, as in many cases single jurisdictions are dealing with ecosystems and communities that have been artificially separated by boundaries. They ensure that issues of national sovereignty are not compromised, and they empower governmental and nongovernmental stakeholders to operate within an agreed framework. As agreements run over a determined time frame (and can be extended) they can increase the sustainability of the outcomes by making the TBNRM process less dependent on the immediate actions of individuals. Problems that arise can be dealt with collectively, and this promotes the development of trust and understanding. A collective effort results in more robust strategies and a higher profile at the national or even international level. One of the motivations may be to ensure a joint and more coherent approach to international agencies, particularly those that promote regional integration.

It is also important to guard against “paper agreements”—those that are not sufficiently grounded in reality to yield useful results. An agreement on its own will not necessarily be sufficient to achieve a desired outcome. If agreements are too informal, they might be easily overridden by powerful interests. If the problems identified at a national level are intractable—e.g., lack of security, landlessness, poverty—it is unrealistic to expect these to be resolved by introducing an international component. It is also possible that an

agreement may expose conflicting interests or even generate new conflict, so it is important that the fundamental purposes and principles for implementing agreements are well thought out.

2.4.2 Agreements to Serve Different Purposes

Agreements are developed for many purposes, and therefore involve a variety of stakeholders in each case. For example, agreements in the wildlife and biodiversity fields have been developed for:

- Cooperation among resource/protected area managers, e.g., for planning of adjacent protected areas or for the sustainable exploitation of a transboundary marine resource;
- Joint implementation of resource management programs, e.g., for a migratory population of large herbivores;
- Reciprocal assistance agreements, e.g., fire management or rescue operations;
- Joint/cooperative implementation of projects;
- Information exchange, and the setting of data management standards and protocols;
- Financing development of resources or tourism;
- Revenue generation and sharing;
- Restoring and maintaining peace, or avoiding conflict; and
- Community management of natural resources.

An example of an agreement is provided in Box 2.7. There could also be agreements in one area for different purposes, or an umbrella type agreement that determines overall policies, within which operational agreements are framed.

Box 2.7 The Sangha River Trinational Cooperative Agreement

The Sangha River Trinational Initiative aims to promote TBNRM among three contiguous conservation areas—Nouabale Ndoki NP (Republic of Congo), Dzanga-Sangha Forest Reserve (CAR) and Lobeke Reserve (Cameroon) in order to help reduce elephant and bush-meat poaching. Various meetings were held between 1995 and 1999 to move this idea forward. In March 2000 a meeting of legal experts and project leaders from each country drafted a cooperative agreement. The cooperative agreement is intended to:

- Solidify the commitment of the different partners to the transboundary initiative;
- Provide an institutional framework for the development, execution and monitoring of relevant activities; and
- Serve as the base for the future possible creation of a trinational park.

Source: Steel and Curran (2001).

2.4.3 Different Types and Levels of Agreements

The variety of transboundary processes and purposes suggest that different types of agreements would be appropriate. Agreements can be highly informal verbal agreements between two adjacent villages, they can be written agreements between protected area managers, or they can involve bilateral or multilateral treaties between adjacent or non-contiguous states. Descriptions follow:

- **Informal agreement**—e.g., to notify the adjacent resource manager of a fire management program, or for two adjacent protected area managers to appoint a representative to serve on one another's management committee. These agreements are usually driven by a mutually identified need, but are difficult to sustain if key role-players change;
- **Traditional arrangement**—e.g., mutual recognition of the rights of an adjacent community to undertake resource harvesting across the boundary. This type of agreement is often deeply rooted in the history and interaction between communities, perhaps even before current boundaries were established. The arrangements can be at risk if the rights and obligations are not recognized by central governments. There is the need to secure—as well as an opportunity to include—traditional arrangements in new and more formal agreements within a TBNRM program;
- **Letter of intent**—e.g., at any level, to develop increasing cooperation in the future. This type of agreement can symbolize developing cooperation, while allowing the flexibility and opportunity to consult and determine the elements of a more formal agreement;
- **Declaration**—e.g., among delegates at a transboundary workshop, stating that an understanding has been reached, and that further actions will be undertaken to enhance cooperation or to pursue specific objectives;
- **Protocol or contingency plan**—e.g., an agreed course of action to address specific incidents such as an oil spill. This type of agreement is very practical, and may engender a sound working relationship, which could extend the scope and level of the agreement at a later stage;
- **Memorandum of Understanding**—e.g., an administrative arrangement, usually appropriate where the level of consultation is advanced sufficiently for representatives to agree on their common objectives, and to set out interim institutional arrangements and delegations to accomplish specific tasks;
- **Bilateral agreement**—This is usually an international agreement, formally ratified by the countries or jurisdictions involved. It goes further than a Memorandum of Understanding and sets out a legal agreement between countries (see Box 2.8); and
- **Treaty**—Similar to a bilateral agreement, but with the suggestion that the agreement formally resolves a dispute or binds the parties to an agreed course of action.

It may also be an option to negotiate an enabling agreement or protocol, which empowers stakeholders at different levels of authority or in different sectors to negotiate sub-agreements.

Box 2.8 Bilateral Agreements on Transhumance in West Africa

Transhumance is practiced widely in West Africa and has an extremely well-established pattern of TBNRM. Bilateral agreements have been developed between Ivory Coast, Benin, Burkina Faso and Niger that fix regulations for transhumance and the principle of authorization of transhumance between the countries. Specifically they include the following:

- Foreign herders will receive the protection of the host authorities and their rights are guaranteed by the judicial structures of the host country;
- Herders have to respect the laws of the host country;
- Herds have to be guarded continuously by a sufficient number of herders;
- Herders are required to keep, and produce upon request, an international transhumance certificate (showing origin, destination, composition of the herd and the vaccinations received);
- Every country has to specify the places where animals can officially enter and leave the country; and
- The host country has to fix the period, duration and number of animals authorized for a stay in the country during the transhumance circuit.

Source: Lycklama à Nijeholt *et al.* (2001).

The parties to agreements also vary, and could involve any or all of the following stakeholders, depending on the nature and scale of the agreement:

- National governments or states;
- Provincial governments, or states in a federation;
- Statutory bodies;
- Community structures;
- Local governments;
- Subnational jurisdictions;
- NGOs;
- Research institutions;
- International organizations; and
- Private enterprises.

The initial idea or need for an agreement may be generated at any level and by any party. However, especially when crossing an international boundary is involved, the complexity of negotiation and decision making increases rapidly, and it is necessary to involve a complex set of stakeholders and protocols. In particular, it is difficult for sub-national jurisdictions to operate with any authority without the requisite endorsement of the competent authority at a national level. It takes time to set up an agreement properly and this needs to be planned for. There is, too, a need for adaptive management; at one stage of the process a very informal agreement may be needed, but as activities continue and trust

builds up, different levels of formality for agreements will become appropriate among the different levels of players involved (Lanjouw *et al.* 2001; and also see Section 2.3).

2.4.4 Process for Reaching Agreement

There is no ideal process, and it is usually incumbent on those who identify the need for agreement to lobby the relevant stakeholders and convince them of the need and involve them in the steps to follow. In some cases, it may be useful to start with local-level initiatives, e.g., contact between two villages across the border. In other cases, the initiative may come from a high-level diplomatic process. Often, the process is slow and moves over many years from one type of agreement—e.g., an informal one—to another, more formal one.

The following points indicate aspects of the process that need to be considered:

- **Identification of the need.** The necessity and sufficiency of an agreement should be debated in relation to ecological and social and economic objectives;
- **Consideration of the opportunity.** A regional economic development agreement may provide an incentive for forging bilateral or multilateral linkages for TBNRM. Existing agreements may provide the most natural focal point; and it is logical to build on existing national or international agreements, rather than starting from scratch;
- **Consideration of the constraints.** An analysis of the likely constraints should be undertaken early, as a lack of resources, for example, will severely impede the implementation of an agreement;
- **Consideration of the timing.** An agreement would be more likely to flourish in an atmosphere of reconciliation after conflict, than when conflict prevails;
- **Starting point.** The stakeholders with the greatest interests are likely to be successful champions of a process (see also Section 2.2);
- **“Nested” agreements concluded at different stages.** It might be necessary to consider a framework agreement before considering agreements at a more operational level;
- **Existing agreements incorporated.** Existing agreements should be identified, and referred to or incorporated into new agreements. This is particularly relevant for informal agreements;
- **Negotiating partners.** A clear mandate for negotiation must be achieved by involving the relevant authorities;
- **Developing agreements** (drafting, reviewing, reaching consensus). There are international precedents and international norms for developing agreements, usually requiring specialist legal expertise, as both domestic and international legal matters must be considered. The process will vary according to the circumstances. In the case of agreements in the SADC region, mandated bilateral steering committees of officials usually

draft the agreements, building on precedents where possible. These are then tested in the respective countries for their compatibility with domestic law and international law. They often have to be reviewed by the political desk of the foreign affairs departments, and usually require approval at cabinet level and certainly by the head of state before authority is given for their signature; and

- **Concluding agreements** (legal review, diplomatic processes). There are protocols for interaction among states that must be observed. Agreements usually enter into force on the date of the last signature, unless otherwise specified.

2.4.5 Contents of Agreements

The drafting of an international agreement is a technically complex matter, requiring the services of skilled and experienced professionals. It does, however, help to identify some of the aspects that might be considered in such an agreement, and for the parties to discuss and even prepare notes that might aid in the drafting of an agreement that will address their specific purpose and circumstances. The following aspects might be considered:

- **Preamble.** This is a clear statement of why this particular agreement is necessary, and what the origin of the initiative is.
- **Definitions and scope.** Terms used in the agreement are defined.
- **Objectives framework.** The specific objectives are outlined.
- **Parties.** All of the signatories to the agreement are identified.
- **Acknowledgements.** Reference is made to issues that are understood as given, e.g., the international significance of the ecosystem.
- **Guiding principles.** The major political or procedural principles are outlined, e.g., desirability of cooperation, the need for transparency, or the recognition of sovereignty.
- **Points of agreement.** This is the substantive section, which addresses the issues about which the parties have reached consensus and that are recorded in the agreement.
- **Competence.** Each party designates the competent authority to implement the agreement.
- **Delegation of powers.** A mechanism is provided for the delegation of powers to implementing agencies; and the agreement may also assign or delegate specific powers to identified agencies.
- **Working arrangements.** The way in which the agreement is to be put into effect is described.
- **Structures and functions.** The various structures and their functions are identified and their roles and responsibilities described, e.g., steering committee, working groups, coordination structures.
- **Institutions.** Specific institutional structures and the manner in which they will operate are identified, e.g., trusts and foundations.

- **Special provisions.** Reference is made to specific aspects that require elaboration depending on the purpose of the agreement, and the need to spell out specific procedures, e.g., regarding information flow and exchange, environmental impact assessment, protocols during times of conflict.
- **Financial matters.** The manner in which the process will be funded, and the means of receiving and disbursing funds are detailed.
- **Dispute resolution.** The means of addressing and resolving disputes is identified, including any processes of mediation or arbitration.
- **Entry into force and termination.** The specific process whereby an agreement enters into force should be identified, as well as the process whereby the agreement would be terminated, and the method of disposing of assets and liabilities.
- **Limitation of liability.** Depending upon the prevailing domestic or international laws, there may be a need to limit the liability of the parties.

Conclusions on TBNRM Agreements

Agreements are necessary in situations where one party would be unable to achieve a goal without the other's participation. The purpose of an agreement determines the level and type of agreement appropriate to a particular situation. Other conclusions are as follows:

- Transboundary interactions can take many forms, ranging from very informal or traditional relationships among local resource users, to Memorandums of Understanding or international treaties governing resource management programs among countries. To date, there are only a few examples of negotiated agreements of this sort in Africa.
- Negotiating agreements is costly in terms of time and effort; therefore, the purpose(s) should be clear before embarking on this process.
- Agreements can take many forms, adapted to the particular situation and purposes being considered; there is no ideal or blueprint since a variety of stakeholders is involved in each case.
- The initial idea or need for an agreement may be generated at any level and by any party; however, it may quickly require the involvement of a complex set of stakeholders.
- Agreements should:
 - encapsulate the purpose, principles and programs for interaction across boundaries. A number of key aspects should be considered for inclusion;
 - ensure that the parties are clearly identified and that their roles and responsibilities are defined; and
 - be supported by a strong commitment from all parties.
- Agreements can increase the sustainability of outcomes by making the process less dependent on the immediate actions of individuals.
- Depending on scale, an option is to negotiate an enabling agreement or protocol, empowering stakeholders at different levels to negotiate sub-agreements.

- There is no ideal process to reach agreement owing to a variety of circumstances. It is often slow, should depend on the circumstances that prevail and numerous aspects should be considered.
- There is a need for adaptive management—an agreement may start informally and turn, over a number of years, into a more formal agreement.

2.5 Organizational and Individual Capacity

The capacity of individuals, communities, agencies and countries is key for effective implementation of the TBNRM process. Each player needs to have the capacity to undertake its role. Capacity can be described as having the knowledge, skills and abilities needed to fulfill a role. Increasingly access to financial resources and to equipment are also included under capacity. This section is not going to discuss capacity building per se but will focus on how the status of organizational and individual capacity affects performance in the TBNRM process.

2.5.1 Critical Minimum Capacity of National Agencies and Organizations

Experience to date has shown that the levels of capacity of national agencies and organizations is a crucial factor in determining whether TBNRM processes will be successful. Good natural resource management practice comes from strong capacity and plans and programs at national and lower levels within a country. The presence of strong national counterpart agencies in two countries greatly facilitates the progress that can be made in TBNRM because these agencies have an understanding of how NRM works and what the additional areas of focus would be to ensure good TBNRM. The development of the capacity of many communities and national agencies to coordinate community-based natural resource management (CBNRM) projects in Southern Africa bodes well for these players to now engage in TBNRM. In reality, however, many national agencies and organizations in Africa do not have the necessary capacity, and are not therefore in a position to maximize impacts from TBNRM.

At its simplest, if a national organization is extremely weak, it will need to be strengthened to a certain minimum capacity before being able to play a role in TBNRM. Ideally this would be done before the organization becomes involved in the more complex realm of TBNRM. For example, in Eastern Africa GEF-UNDP funded a four-year project that focused on developing national institutional capacities in biodiversity conservation before it developed the current Cross Borders Conservation Project. Agencies, although

not necessarily equal in capacity, were thus poised to work with others both from within and outside the country—and indeed many professional relationships had already been established through shared training in the first project (Rodgers *et al.* 2001b).

In many cases, however, projects try to develop the capacity of the national organizations at the same time as they expect them to engage in TBNRM—and as a result, the often complex TBNRM process is adversely affected when players are not yet able to fulfill their roles completely. This is of particular concern with the current trend in donor funding for TBNRM projects. Donors anticipate that a project's objectives will be achieved. But with the short time frame of many projects and the understandable emphasis on directing the bulk of the effort to building national capacity, many projects will fail to deliver on the transboundary aspects of the process and may well contribute to disillusionment about the efficacy of TBNRM.

If there is a combination of a strong and not so strong partner then there are opportunities for the strong partner to provide support to the other—as for example in the development of the Drakensberg/Maloti TFCA and the Kgalagadi Transfrontier Park (TFP). The challenge in that case was to establish a relationship based on equality between the partners, but for the strong partner to be responsive to requests for technical support and the like when asked. The strong partner had to recognize that the other one might work more slowly at producing deliverables but provided there was openness about reasons for delay and a continued commitment from both sides the process could continue. However, extremely uneven capacity is a constraint for TBNRM. The stronger partner can become frustrated at the failure of the weaker partner to participate fully. In turn, the weaker partner feels threatened and dominated by the stronger partner. Mutual trust and cooperation are hard to foster in these circumstances.

Can weak organizations work together toward TBNRM? This type of situation is the one least likely to be effective. For example in the “W” Park (a park in Benin, Burkina Faso and Niger, so named after the distinct curve of the Niger river that runs through it) the initial collaboration dwindled as the three protected area authorities suffered significant reduction in capacity (Magha *et al.* 2001). However, the case studies have shown that with the help of an outside facilitator (or facilitators) progress can be made—as shown, for example, by the development of the Sangha River Trinational park concept in CAR/Congo/Cameroon instigated by three international conservation NGOs working in projects in each country at the common border site (Steel and Curran 2001). When funds and technical assistance are available for regional components, it is possible to achieve a high level of TBNRM despite constraints in available capacity—for example, in the case of IGCP working to conserve mountain gorillas and their habitat with three protected area agencies of uneven capacities (Lanjouw *et al.* 2001).

2.5.2 Learning by Doing

Besides the need to acknowledge/recognize the importance of a critical minimum level of national capacities for TBNRM processes to proceed, it is important to remember that implementing TBNRM has a major learning component to it. The deeper partners/organizations are involved in TBNRM the better they get at doing it. Those countries participating in TBNRM over a long period of time are the ones that build up their capacity and experiences and are then able to transfer those to new, similar initiatives (Rodgers *et al.* 2001a).

2.5.3 Organizational Space and Establishing Special Institutional Arrangements

The discussion in this section has so far implied that existing organizations are brought into the TBNRM process. It is important to remember, however, that there can be a danger of imposing structures upon people rather than allowing organizations to evolve on the basis of need (Metcalf 1999) and that the concept of allowing for “organizational space” is important in TBNRM. New organizations may form as a result of the process and these will emerge with varying capacity. The principles discussed above will apply to these new organizations.

The TBNRM process experience has shown the importance of setting up platforms as mechanisms where information and ideas are exchanged in a transparent and participatory way to ensure the appropriate involvement of all relevant stakeholders. These may be informal in the beginning but often evolve into more formal structures later based at varying levels—e.g., from district/local level groups forming committees to the establishment of bilateral/multilateral-level steering committees. In terms of capacity much will be gained through learning by doing—although facilitators may need to invest considerable effort to ensure that these specifically established institutions start off on the right track that furthers the TBNRM process.

2.5.4 The Role of Regional Institutions

Established regional institutions are uniquely placed, if they themselves have the capacity, to play a role in TBNRM. For example SADC has a natural resources management program with three technical coordination units. SADC recognizes that these units have a responsibility to provide clear and concise guidance for the management of the region’s natural resources and ecosystems—especially those that are transboundary in character (SADC 1999). [It is acknowledged, however, that they are underresourced,

that there has been some duplication of effort among units and that there is a need for more efficient sharing of lessons within SADC if its role is to be maximized. See Griffin *et al.* (1999) for details.] To cite another example, in 2000 the three countries of East Africa reestablished the East African Community (EAC). While it is still in the early stages there will, under the protocol, be many opportunities for cooperation in environment and natural resource management. Similarly the Intergovernmental Authority on Development (IGAD) working in the Horn of Africa has recently added NRM to its program because of the links between land degradation and food insecurity. (The role of NGOs as regional institutions was discussed in Section 2.3.) The capacities of these institutions will need to grow in order to fulfill a maximal role as TBNRM takes root on the continent. Technical and financial investment in these institutions will be needed if there are to be mechanisms that are truly regional. This is an important area where future donor support should focus.

At this point several training institutions have been established on a regional level. Examples from the wildlife sector include the College of African Wildlife Management at Mweka, Tanzania; the Ecole de Faune at Garoua, Cameroon; and the Southern African Wildlife College in South Africa. Their courses and regional seminars could provide opportunities to integrate TBNRM approaches.

Conclusions on Organizational and Individual Capacity

TBNRM will draw in organizations either with regional mandates or national ones that have to learn to work in partnership with counterpart agencies across borders.

Conclusions regarding their capacity are as follows:

- Adequate capacity of all implementers in necessary knowledge, skills and abilities is key for the effective implementation of the TBNRM process, and often depends on the availability of financial resources, equipment and training.
- When adequate capacity does not exist in national organizations it should be built before starting a TBNRM initiative—or expectations of effective implementation should be time adjusted.
- When weak organizations exist on both sides of the boundary an outside facilitator can support the process by providing financial and technical assistance for regional components and building capacity.
- In practical terms “learning by doing” will continue to remain one of the main ways organizations build capacity.
- It is better to work with existing organizations that can evolve their mandate and expertise to include TBNRM, but if this is not possible new organizations may have to be formed.

- Establishing platforms, either formal or informal, provide a mechanism where information and ideas are exchanged in a transparent and participatory way.
- Existing regional institutions are uniquely placed to fulfill a role in TBNRM, but may require technical and financial investments to be effective. This applies also to the regional wildlife colleges in Africa.

2.6 Communication in the TBNRM Process

In any situation where there are multiple players communication is a crucial component and this is most certainly the case in any TBNRM process. Effective communication will need messages to be put across to different target audiences in different ways and be sensitive to cultural differences across borders. It must not be assumed that such complex communication will happen by default, communication plans and approaches must be actively thought about and prepared. While these will be specific to each situation, some broad principles can be cited here.

2.6.1 Getting Buy-In

The first communication challenge in the TBNRM process is getting buy-in, or gaining acceptance from a critical mass of players to get the process started. This is likely to start within a country and then move to the transboundary level, but it is likely to be an iterative process as broader buy-in is sought both within and between countries. How a leader goes about getting buy-in will depend greatly on scale—the magnitude of the issue to be addressed, the extent of collaboration that is going to be needed and the size of the geographical area. Also of importance is the need to identify whom should be approached and whether certain target groups should be given priority. An example in reference to aforementioned three aspects of scale was the Lake Tanganyika Biodiversity Conservation Project. Based on research findings from several countries, GEF was interested in supporting a project to address unsustainable NRM practices in and around Lake Tanganyika. Presentations were made at the ministry level in the four countries within which the lake falls. Once there was clarity at the national level of the need to address the issue through a transboundary approach, a regional meeting (again at the ministry level) was arranged to agree to initiate a regional project. After that the process of getting buy-in from other stakeholders continued at local and national levels.

The importance of gaining clarity as to the need for a transboundary approach to ensure buy-in needs to be stressed. In establishing the Kilimanjaro Heartland project, AWF describes how it hired a senior conservation professional specifically to foster relationships

in support of landscape-level conservation with relevant statutory authorities, land owners and other stakeholder groups. Interestingly, when the first participatory planning meeting was held, several agencies did not attend as they still wanted further clarification about why they should interest themselves in transboundary issues (Muruthi and Frohardt 2001). This illustrates how TBNRM practitioners must allow enough time for this kind of process, which often takes longer than anticipated.

Another important aspect of getting buy-in is being able to demonstrate that information needed for the TBNRM process has been (and will continue to be) collected in a transparent way. And concomitant with this must be the agreement to share information (see below).

2.6.2 Forging a Common Focus across Sectors, within Levels, within Organizations, up and down Levels and across Countries

In sections 3.1 and 3.3.2 the need for a vision and focus for the TBNRM process is highlighted. Developing the common focus is primarily through a good scoping process, followed by a design and planning phase (see Chapter 3)—communication is a crucial tool for this to happen. Any planning process will involve participants who are selected for the constituency they represent. For TBNRM to be successful it is vital that these participants communicate the vision and progress (or lack of it!) on the TBNRM process to their constituents who need to be kept informed and involved.

Developing a common focus is relatively simple if players come from the same sector and speak the same technical language. However, several TBNRM practitioners are looking to mainstream TBNRM in broader regional economic processes (see Chapter 1). This involves the need to communicate across technical sectors and with people who have very different goals—and made all the more complicated by needing to do this across borders. Practitioners need to develop strong communication skills to be convincing proponents of TBNRM.

2.6.3 Sharing Information Widely

Much TBNRM work involves the need for cross-sectoral interaction; participants in the TBNRM process may need to reach out to key target audiences beyond their normal sphere of influence in order to be effective. TBNRM practitioners should always have uppermost in their minds the question—who needs to know this information and who would be the most appropriate individual/agency to share it with? It is worth noting here

that people do not need to have expertise in other sectors—collaboration and willingness are the factors that matter.

Mechanisms need to be set up to share information. The important aspect with respect to TBNRM is how information is shared across boundaries. Players need to be aware that despite the intention to be transparent with information—which should be inherent in any TBNRM process—there may be issues of national sensitivity in some situations.

Mechanisms for sharing can be formal or informal, and they can take advantage of existing mechanisms or specifically establish new approaches. The most obvious approach is to establish regular regional meetings that bring specific players together for the purpose of moving the process forward and that also provide an opportunity for updating and other information exchange. The focus of discussions should be on the transboundary aspects of the TBNRM process. IGCP holds quarterly regional meetings that bring wardens of the gorilla parks, as well as other players, together. At each meeting the next set of activities toward TBNRM are agreed on jointly by all players (Lanjouw *et al.* 2001). However, in many situations regional meetings can be very costly—and as a result need to be well structured to be efficient and effective.

One other method of sharing information is to establish links with counterpart institutions across borders that then work at the national level to promote TBNRM. The Minziro-Sango Bay forest project across the Uganda/Tanzania border, for example, has established Site Steering Committees that discuss TBNRM with counterparts across the border. Each Site Steering Committee then makes a similar report and set of recommendations to its respective district meetings. In this way the TBNRM process is moved forward through national mechanisms (Rodgers *et al.* 2001b).

Feeding information into regional institutions can be another effective way of sharing. Most regional institutions have formal systems of reporting to the countries of the region.

2.6.4 Keeping up a Dialogue

Sometimes aspects of the TBNRM process can get slowed down or delayed. This is not surprising in something so complex. In many cases it may take a long time for the vision to be finally achieved but, provided the key players keep up a dialogue, the process can be resumed at any point along the way. The formation of the Kgalagadi TFP, for instance, took over seven years. The protected area authorities from South Africa and Botswana started collaborating informally in 1948; in 1992 they decided to formalize the arrangement, but it was not until 1999 that they were able to finalize the agreement. During that

period a lot of joint “on the ground” activities were put in place that paved the way to managing the area as a transfrontier park.

Obviously the principle of regular contact should not be followed rigidly if nothing of immediate concern is happening; funds should not be wasted on bringing groups to regional meetings if there is no substantive agenda.

2.6.5 Constraints for Communication

There are, however, many constraints to communication in transboundary contexts. Many of these can be anticipated at the start of the TBNRM process but others will emerge. Examples of constraints that have come out of project case studies include the following:

- Language barriers (although often a local language can be understood at the site level);
- Legality of cross-border radio communications (in many countries it is not legal to communicate across the border for security reasons);
- Lack of hardware (the telephone may not be an option in remote areas or lines may be unreliable; agencies on opposite sides of the border often do not have compatible radio systems);
- Costs of communications (many methods of communication are expensive);
- Scale of the area (in areas such as Central Africa the distance between counterpart agencies may be so great that a huge investment of time and possibly travel expense would be involved in arranging a meeting; and
- Conflict between two countries (several countries in Africa are currently at war and this usually affects direct communication between TBNRM players).

Some of these can be got round quite simply, others may be more difficult: solutions are often costly or need a lot of effort to put in place. Practitioners should try and tackle constraints because good communication is fundamental to the success of TBNRM.

Conclusions on Communication

Good communication is an important component to the success of TBNRM, and a mechanism to get support and understanding of key players. Communication plans and approaches must be actively planned and prepared. Key considerations are as follows:

- A common focus and vision must be forged early on and communicated broadly.
- TBNRM needs transparency—information must be shared widely and dialogue maintained throughout, both internally and across borders.

- Communication requirements need appropriate messages for an array of different target audiences. This may require regular communication with other sectors and disciplines.
- Multiple mechanisms, both formal and informal, exist to communicate.
- Sometimes the TBNRM process gets slowed down or delayed and it is particularly important at those times to keep up the dialogue and to believe in the vision.

2.7 Constraints and Enabling Conditions for TBNRM

TBNRM initiatives do not happen in an isolated ecological context. They are developed and implemented in a broad framework, which includes social, economic, political and institutional aspects as well. Within this broad framework there are both in-country and international aspects that have a direct or indirect impact on the success of transboundary initiatives. While it is not always possible or easy to change or influence this broad framework, it is necessary to be aware of the opportunities, enabling conditions and constraints imposed by it in order to assess the likelihood of achieving TBNRM objectives.

This section reviews common constraints and enabling conditions for TBNRM. Opportunities were outlined in Section 1.3. For the purpose of this review, an enabling condition is a condition that facilitates, supports or is essential for successful TBNRM. Not every factor mentioned below will be relevant in every TBNRM situation. Constraints, enabling conditions and opportunities vary among sites, with scale, and with changes over time. There is frequently a close relationship between constraints and enabling conditions: when a constraint is overcome, an enabling condition is often created. Many of the constraints for TBNRM are the same as constraints to good natural resource management within a country. If the conditions for in-country natural resource management are absent, the situation will generally not be improved by “going transboundary.”

Ideally enabling conditions should be in place before starting a TBNRM initiative. However, it would take a long time to create all the necessary enabling conditions, if indeed this were ever feasible. It is important to be pragmatic and start off on an approach where there are feasible opportunities, even if they are limited. Some enabling conditions will be created along the way. Practitioners should be proactive and try to anticipate and tackle constraints before they become severe limiting factors. New avenues should be explored to get around constraints that are not easily resolvable.

The review below draws on earlier sections in this chapter, and on other project documents: Biodiversity Support Program (1999), Griffin *et al.* (1999), Lanjouw *et al.* (2001), Magha *et al.* (2001), Muruthi and Frohardt (2001), Lycklama à Nijeholt *et al.*

(2001), Rodgers *et al.* (2001a), Rodgers *et al.* (2001b), Steel and Curran (2001), and Wilkie *et al.* (2001).

2.7.1 Ecological Context

Constraints

Constraints include intrinsically low productivity and value of the natural resource base, ecosystem services, and biodiversity, which may mean that transboundary collaboration is not worthwhile. While restoration activities are often possible for degraded areas, it can take much time, effort and expense to repair severely damaged habitats and this can constrain TBNRM success. The presence of economically important animal diseases in a region may limit TBNRM collaboration owing to the necessity of control measures (e.g., border veterinary fences that constrain wildlife movement).

Enabling Conditions

- Natural resource base and ecosystems with adequate actual or potential productivity and value to justify collaboration.

2.7.2 Social and Cultural Context

Constraints

Participation of Key Stakeholders

It is important that all key stakeholders participate in the TBNRM process, from the planning stage through implementation (see Section 2.1). However, if the stakeholders have different degrees of empowerment and some are poorly organized there can be serious consequences. Organization in communities is particularly important, in order to be able to negotiate and collaborate effectively with other stakeholders within and among countries. A weakly organized community can become marginalized, and thus neither contributes its existing traditional knowledge fully nor benefits from TBNRM. In particular the private sector has difficulty in working with weakly organized communities, since it usually wants results faster than NGOs and government and does not have time to help communities to build capacity. If these problems exist within a country, it is unlikely that transboundary management will be successful.

Ownership of the TBNRM Process

Who and what drives the process and who facilitates it have a major impact on the success of a TBNRM initiative (see Section 2.2). Initiatives driven only by the interest

of a donor or NGO are likely to be less sustainable than those that build on existing activities and structures. TBNRM imposed from above on the local level is less likely to succeed.

Lack of Trust

Lack of trust among stakeholders is a serious constraint. This includes trust among stakeholders on the same side of the border (e.g., government and communities; communities and private sector; NGOs and government) and among stakeholders across the border. Trust takes time to develop and cannot be rushed. In particular, it takes a long time to develop community trust and participation.

Cultural Heritage and Language

Language barriers may constrain TBNRM. For example, transboundary partner countries with different official languages may have severe communication problems, and incur additional costs for translation and dual language documentation. This occurs on the margins of the Anglophone and Francophone blocks of countries, with all the Lusophone countries and their neighbors, and is a particular problem on the West African coast where English- and French-speaking countries alternate.

The cultural heritage of local communities may become subordinated in the TBNRM process: communities value cultural as well as biological heritage, but other TBNRM stakeholders value the biological or economic side more and may force this at the expense of cultural factors.

Enabling Conditions

- Trust exists or is established among key stakeholders so that they can commit themselves to the process. In order to develop trust the importance of transparency and accountability in the process, as well as reciprocity and equity, must be recognized. It takes time to build trust.
- All key stakeholders participate in an equitable way in the process, starting with the design phase.
- Any current and/or potential conflicts among stakeholders are not so great that they prohibit TBNRM.
- Tenure and user rights are devolved adequately to communities (see Section 2.7.4).
- Key actors are empowered so that they can fulfill their roles in TBNRM, gain appropriate benefits and have adequate incentives.
- Common history, ethnic grouping, language and traditional resource management systems across a border can greatly enhance the likelihood of success at local level.

2.7.3 Economic-Financial Context

Constraints

High Costs Relative to Benefits

Transaction costs for TBNRM initiatives are often high. The benefits should be greater than the costs in order to justify working across borders. The net benefits of trans-boundary collaboration also should be greater than the net benefits of working separately at country level. While initial activities and start-up costs may need to be financed by external sources, longer-term sustainability depends on the bottom line: do the benefits outweigh the costs?

Costs and benefits should be analyzed before embarking on TBNRM projects. It is necessary to identify all costs and benefits, not only those that can be easily quantified in financial terms. It is important to review indirect use values such as ecosystem services, and nonmaterial values such as cultural, scientific and intrinsic values. It is also important to look at the distribution of costs and benefits across the range of stakeholders, on both sides of the border. Inequitable distribution of benefits is a major constraint to the success of initiatives.

Unfortunately this type of comprehensive economic analysis is difficult. Natural resource economists are still developing tools and techniques that can assist in the process. There is an urgent need to adapt existing valuation techniques to TBNRM situations, developing a valuation system that stakeholders can participate in and understand, and where linkages among resource production, ecological services and different types of economic benefits are understood.

More specific economic and financial constraints are listed below.

Economic Development

Differences in stage of development among neighboring countries can result in corresponding differences in priorities for TBNRM objectives, which may not always be compatible. Countries with more highly developed economies (e.g., South Africa and Nigeria) may overshadow their neighbors and make collaboration difficult. Similarly, differences in economic powers of individual stakeholders may cause difficulties.

TBNRM programs often have limited economic opportunities. Some rely on tourism to promote economic development and sustainability of the venture (to date this is more the case in Southern Africa than in the other regions). However, heavy reliance on tourism alone creates a very narrow economic base for TBNRM. The tourism industry is fickle and risks impacts of changing fashions, regional and global economic recessions, and

insecurity anywhere in the region. Safari hunting tends to be less affected by insecurity than photographic tourism. Even so, a broad economic base is desirable.

Private Sector Investment

Private sector partnerships and investment are an essential part of many TBNRM programs. However, conditions in many African countries are not very conducive to investment. Constraints include the following:

- An unstable economic environment—for example, high inflation rates and risk of foreign exchange rate fluctuations;
- Restrictive financial environment—for example, restrictions on capital flows for investment and repatriation of profits; and
- Restriction in access to land—in many African countries, for example, there is no freehold land and tenure of leasehold land by the private sector may not be very secure.

Trade

Trade can be an important part of TBNRM. However, there are many restrictions and disparities that have a range of effects on the viability of TBNRM. They include the following:

- National financial policies that impose barriers to free trade or subsidize land-use practices that are inimical to sustainable natural resource management;
- Market distortions may be caused by outside forces: for example, the European beef market competes with West African producers to supply coastal countries in West Africa. The coming of globalization and promotion of free trade policies may enhance this; and
- Disparities in tariffs, taxes and prices among countries, which create opportunities for smuggling and re-exportation of natural resources.

Donor Funding

Constraints to donor funding include the following:

- Donor time frames are typically three to five years, which is not long enough for a complex TBNRM project to develop long-term sustainability;
- Funding for regional projects is not always available from bilateral and multilateral donors, which prefer to fund nationally (though there are exceptions, e.g., USAID);
- Donors may cease funding if political differences develop between donor and recipient country or if there is insecurity in one or more of the TBNRM countries (e.g., DRC funding was lost in Virungas); and
- There is a risk that funding is diverted from national-level NRM activities to TBNRM rather than being funded incrementally; such a reallocation does not take into account the fact that national-level activities are still essential, and are a base for TBNRM.

Enabling Conditions

- The benefits of TBNRM are greater than the costs.
- National financial policies are supportive of TBNRM initiatives and approaches—or at least, they do not impose constraints.
- The status of the overall economy is appealing to investors.
- Benefits occur on both sides of the border, are shared equitably, and the people living with the natural resources have incentives to manage them sustainably.
- Resources are available to start up the initiative and long-term sustainability is built into the planning (especially if externally funded).
- There is a flexible and multiple-source funding base.
- Economic opportunities exist and are recognized; there is a clear link among local benefits and the costs (e.g., in the case of Virungas, link among ecological services and forest conservation; tourism revenues and gorilla conservation).

2.7.4 Political and Policy Context

Constraints

Inadequate Political Will

Insufficient political commitment to transboundary initiatives—at local, national or regional levels—can impose major constraints to TBNRM success. The importance of trying to find win-win situations among stakeholders cannot be overstressed, but in some cases it just is not possible. There may be other agendas and vested interests, for example, in favor of other land uses. Corruption may preclude the transparency, openness, devolution of power and equitable benefit sharing that are necessary for successful TBNRM. In this case improved internal governance may be a necessary precondition before TBNRM can work.

National Sovereignty and Security

Issues of national sovereignty and security can be constraints to TBNRM. These include actual or perceived dominance by one country over another (perhaps in terms of size, financial means and the like); concern about losing control of sovereign territory; and security risks (including the risk of animal diseases spreading across borders). If governments are uneasy about TBNRM collaboration because of security or sovereignty issues, higher levels of government may insist on being involved. However, the fact that diplomats and officials at higher levels of government place high priority on the resolution of transboundary security issues may sometimes open doors and opportunities for TBNRM to hasten the process and increase the chances for success (Dorothy Zbicz, pers. comm.).

Insecurity and unrest pose extra challenges for TBNRM. If a government is not in control of areas near its country's borders and there is a breakdown of social, economic, political and administrative structures, there may be nobody for a neighboring country to collaborate with at the local or national level. TBNRM collaboration is likely to be very low on the list of the beleaguered government's priorities. There are also risks to the neighboring country. Control of shared natural resources may collapse, and illegal exploitation may damage the resource base. Problems may spread across the border: illegal extraction may occur on the peaceful side; refugees may cross the border and cause impacts; armed insurgents may cause instability; and animal diseases and invasive species may spread from one country to others owing to breakdown of controls.

Collaboration during times of instability is not impossible (as has been very ably demonstrated by the continued TBNRM collaboration in the Virungas despite 10 years of insecurity). There are even opportunities for transboundary collaboration to mitigate the impacts of conflict (see Shambaugh *et al.* 2001), such as exchange of information, joint monitoring and control of resource extraction.

Poor International Political Relations

Poor diplomatic relations among countries can inhibit TBNRM, particularly larger-scale initiatives. It may not matter so much in smaller, less formal initiatives (as the Virungas case demonstrates so well), but it can be a constraint to formalizing the collaboration and increasing the range of possible benefits from it.

Devolution, Decentralization and Empowerment

As for NRM within a country, TBNRM can be constrained if devolution of control over land and resource use is inadequate for those at lower levels to play their roles effectively. In particular, local communities must have adequate empowerment and incentives for long-term participation. TBNRM at a formal scale tends to increase the involvement of upper government levels (e.g., the line ministry in each country and sometimes multiple government ministries). There is a risk that these levels will exert influence and control that is not in the best interests of local communities or private landowners. Other groups such as private sector, NGOs and donors may also drive the TBNRM agenda in a way that conflicts with local interests. The situation is often complicated by the existence of a dual tenure system (state and traditional), sometimes with lack of clarity over their juxtaposition. In addition to community empowerment, it is important for central government to devolve adequate power to local government in order for it to undertake transboundary collaboration. Buy-in of private landowners to the transboundary process is also necessary, and national-level agendas do not always take this fully into account.

Equity across Borders

Equity issues across borders may limit the success of TBNRM unless they are resolved. Benefits have to be shared, and perceived inequities may seriously constrain collaboration to manage shared resources. Types of benefit-sharing arrangements include establishment and implementation of quotas for harvesting of shared resources and revenue sharing (as found in, for example, the Kgalagadi Transfrontier Park).

Lack of Enabling Policies and Legislation

Inadequate policies and legislation to support sustainable natural resource management, as well as policy and legal inconsistencies among countries, can severely limit the effectiveness of collaboration. Examples include situations where tenure and user rights have not been devolved to local authorities or users, or where regional planning initiatives have not incorporated NRM adequately. Sometimes these problems have their origins in the legacies of colonial legislation. Policies may also promote perverse incentives, e.g., land uses in marginal areas that are not compatible with TBNRM. National legislation rarely makes provision for TBNRM (although South Africa is an exception).

Inadequate Application of Policies and Legislation

If laws are not applied equally to all stakeholders then one group may become too powerful and influence the TBNRM process to its own advantage.

Inadequate Role of Regional Organizations and Agreements

There is a wide range of regional organizations, protocols and economic agreements that could help to promote TBNRM. A few appear to be having positive effects, though judging by the case studies and regional TBNRM reviews of this project, impacts in general have been limited so far. Many of them have no strong powers and rely on countries to collaborate voluntarily, rather than playing a strong enforcing role to ensure implementation of regional policies. Regional institutions are often under-resourced, have poor coordinating structures, are in some cases bureaucratic, and are divided by sector (e.g., SADC)—with consequent challenges in coordinating a multisectoral approach TBNRM requires. However, they do have the potential to play a very significant role in the future, if the right conditions are found.

Inadequate Border Crossings

In cases involving neighboring countries, new border crossings are often required to promote TBNRM and to enable transboundary processes such as tourism development and sustainable trade of natural resources. However, many countries have concerns about illegal immigrants, rebel movements and smuggling. These constraints may be too great in many cases to permit more permeable borders for legitimate TBNRM activities.

Enabling Conditions

- Strong political will and commitment to transboundary collaboration.
- Policies and legislation supporting sustainable natural resource management in place in neighboring countries and at a minimum non-conflicting, and preferably harmonized laws (it is an advantage if the neighboring countries have similar legal systems).
- Independent and effective judiciary in each country, which applies laws to all citizens, private sector, government officials and departments.
- Transparent and democratic policy and law-making process representing the majority.
- Political stability and security.
- Support as needed by national-level stakeholders to local-level stakeholders.
- Strong regional integration.
- Regional protocols and economic agreements in place that can provide a framework for collaboration—e.g., SADC, East African Community, Yaounde Process/CEFDHAC, Club du Sahel.
- Integrated land-use plans on both sides of the border that cover multiple land uses and objectives without significant conflict or ambiguity among different land users within a country.
- Compatible land-use plans for neighboring countries.

2.7.5 Institutional Context

Constraints

Capacity

Weak capacity on both sides of the border to manage natural resources will not result in good TBNRM. Uneven capacity, with only one partner having high capacity, is likely to limit success, affecting the project's ability to make lasting partnerships. This refers to both individual and organizational capacity—the latter referring to government institutions, NGOs and civil society. Finally, the lack of a process for transboundary planning or coordination can challenge people's potential to contribute significantly to TBNRM. (See Sections 3.3 and 3.4 for more information.) Capacity can be limited by financial, equipment, personnel and skills needs.

Organizational Mandates

In some cases, organizations may be well placed to play a transboundary role, but lack the mandate to do so. This is often the case particularly in government, where roles tend to be highly compartmentalized. It is much easier for the private sector and NGOs to play flexible roles. Governments through their bureaucratic colonial inheritance

compartmentalize resources in different government departments (e.g., for forestry, wildlife, water or agriculture), so that individual departments have mandates for only a single resource. This is sometimes aggravated by funding agencies that have their own sectoral approaches. Similarly, land is often designated for single land uses. Communication and collaboration among government departments is often limited. Yet sustainable development, integrating economic development with sound natural resource use and ecosystem management, requires an integrated approach, working across existing land-use boundaries. TBNRM on a large scale requires coordinated multisectoral government inputs. If these are not forthcoming from within a country, there is a risk that TBNRM will revert to single-sector management structures that are too weak to exert any influence except in their own jurisdiction.

Information and Communication

One of the basic requirements for TBNRM is an efficient information gathering and sharing system. This forms the basis of TBNRM planning, implementation and monitoring. Capacity to collect priority information is often limited, owing to lack of resources. Even if countries have reliable information, they may not be willing to share it, especially on crucial issues such as water.

Similarly the high cost and time for travel and electronic communication within Africa is a severe limitation to TBNRM. Key stakeholders often have limited access to means of communication. The resources required by organizations to communicate adequately with communities to ensure that they are fully involved are often not available.

Enabling Conditions

- Existence of well-established partners in each country, with compatible missions and experience of cross-sectoral collaboration.
- Strong (or reasonably robust) and balanced capacity among institutions, or an agreed mechanism to develop it.
- Resources available to invest in capacity building and the transboundary process.
- Long-term commitment of the organizations involved, and motivated staff.
- Well-designed transboundary planning and coordination process.
- Networks in place for collecting and sharing information.
- Existence of organizations/individuals to play supporting roles.
- Good national-level NRM including appropriate structures and systems as a basis for TBNRM.

Conclusions on Constraints and Enabling Conditions for TBNRM

- Constraints and enabling conditions are unique to each TBNRM situation, and often cover a wide range of ecological, social, cultural, economic, financial, political, policy and institutional factors.
- It is very important to understand and analyze constraints and enabling conditions for TBNRM in order to review which constraints are the main limiting factors, assess whether it is practical to tackle them, or to choose another course of action.
- It is impractical to try to create all enabling conditions before embarking on TBNRM; it is more realistic to start small on activities that can be done easily, and work to overcome constraints and create enabling conditions along the way.