

Beyond Boundaries:

Transboundary Natural Resource Management for Mountain Gorillas in the Virunga-Bwindi Region

2001

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Acronyms and Abbreviations

ADFL	Alliance of Democratic Forces for the Liberation of Zaïre
ANICO	Animateurs de la Conservation
ANIECO	Animateurs Ecologiques pour la Conservation
AWF	African Wildlife Foundation
BINP	Bwindi Impenetrable National Park
CARE	Cooperative for Assistance and Relief Everywhere
CARPE	Central African Regional Program for the Environment
CEPGL	Communauté Economique des Pays des Grands Lacs
CISWF	Coexistence Initiative of the State of the World Forum
COMESA	Common Market for Eastern and Southern Africa
CODEP	Network on Conflict, Development and Peace (United Kingdom)
CSpro	Provisional Supervisory Committee (DR Congo)
DFGF	Dian Fossey Gorilla Fund
DRC	Democratic Republic of Congo
ECCP	European Centre for Conflict Prevention
ECOFAC	Ecosystèmes Forestiers de l’Afrique Centrale
EU	European Union
FAR	Forces Armées Rwandaises

FFI	Fauna and Flora International
GIC	Gilman International Conservation
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Agency for Development)
HUGO	Human-Gorilla Conflict Resolution program
ICCN	Institut Congolais pour la Conservation de la Nature
IGCP	International Gorilla Conservation Programme
IFOR	NATO (North Atlantic Treaty Organization) Implementation Force
IIPT	International Institute of Peace through Tourism
IRF	International Rhino Fund
IRIN	Integrated Regional Information Network
ITFC	Institute of Tropical Forest Conservation
IUCN	The World Conservation Union
IZCN	Institut Zairois pour la Conservation de la Nature
MBIFCT	Mgahinga and Bwindi Impenetrable Forest Conservation Trust
MGNP	Mgahinga Gorilla National Park
MGP	Mountain Gorilla Project
MGVP	Mountain Gorilla Veterinary Project
MINETO	Ministry of Environment and Tourism (Rwanda)
MINETER	Ministry of Land, Reinstallation and Environment (Rwanda)
NEMA	National Environmental Management Agency (Uganda)

NGO	Nongovernmental organization
OBK	Organisation du Bassin de la Kagera
ORTPN	Office Rwandais du Tourisme et des Parcs Nationaux
PEVi	Programme Environnementale Virunga
PNV	Parc National des Volcans
PNVi	Parc National des Virunga
PTA	Preferential Trade Area—or Zone d’Echanges Préférentiels (ZEP)
RBM	Ranger-Based Monitoring program
RCD	Rassemblement Congolais pour la Démocratie
RCD-ML	Rassemblement Congolais pour la Démocratie—Mouvement de la Libération
RCD-MLC	Rassemblement Congolais pour la Démocratie—Mouvement pour la Libération du Congo
RPF	Rwandan Patriotic Front
RRAM	Ruhengeri Resource Analysis and Management Project
TBPA	Transboundary (or Transborder) Protected Area
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations International Children’s Emergency Fund
UNP	Uganda National Parks
UNTS	United Nations Treaty Series (Registration Number)

USAID	United States Agency for International Development
UWA	Uganda Wildlife Authority
WCPA	World Commission on Protected Areas (IUCN)
WCS	Wildlife Conservation Society
WFP	World Food Programme (UN)
WWF	World Wide Fund for Nature (World Wildlife Fund in the United States)
ZEP	Zone d'Echanges Préférentiels—or Preferential Trade Area (PTA)

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Executive Summary

The International Gorilla Conservation Programme (IGCP) has been working in the Virunga-Bwindi region in Central Africa since 1991. The program is a coalition of the African Wildlife Foundation (AWF), Fauna and Flora International (FFI), and World Wide Fund for Nature (WWF). IGCP's mission is the conservation of mountain gorillas and regional afro-montane forests in Rwanda, the Democratic Republic of Congo (DR Congo, or DRC), and Uganda. These forests are divided into two forest blocks forming separate ecological units. The forest blocks span the border of Rwanda, DR Congo and Uganda and are separated into four national parks. (See Annex B for maps.)

Prior to the arrival of IGCP, the four parks were managed as separate entities by the national protected area authorities. Yet the Virunga ecological unit spans the borders of the three countries, and the threats to the ecosystem come from all sides of the border. The second ecological unit, the Bwindi Impenetrable Forest, lies along Uganda's border with the Democratic Republic of Congo, and as in the Virungas, the threats to the Bwindi forest come from both sides of the border. High human population density, human encroachment, poaching, deforestation and civil unrest all threaten the forest habitats. IGCP believes that only by addressing these threats from all sides can the habitat be effectively protected.

The benefits of establishing a regional framework for collaboration and transboundary natural resource management can be demonstrated by the fact that most of the threats to the natural resources are from people living all around the shared ecosystems. Threats from one side will impact the entire ecosystem. The potential and real benefits of the forest ecosystems, from an ecological, cultural as well as economic perspective, are also similar on all sides of the border. The incentive, therefore, to protect the ecosystem, and to benefit from its various functions, is comparable within the three countries. The costs of effective management and protection are also comparable.

Regional management of the two forest blocks as effective units can be based on a variety of strategies, ranging along a continuum between non-conflicting management approaches to full collaborative management. The International Gorilla Conservation Programme has worked with the national protected area authorities toward regional conservation of the shared ecosystem using a number of different strategies along that continuum. The choice of strategies has been based on the needs, opportunities and constraints in the region. The emphasis has been on effective conservation at the field level, building gradually toward the formalization and institutionalization of these approaches into formal mechanisms and agreements at political levels.

Chapter I. Introduction

The Virunga Volcanoes and Bwindi Impenetrable National Park are the focus of this case study. This region, shared by three countries in Central Africa, is situated in one of the most densely populated areas of Sub-Saharan Africa, and has been the scene of prolonged political and social conflict. The ecological and economic importance of the region, however, has focused attention on the need to ensure continued conservation and sustainable management of its natural resources. Examination of the approaches applied to maintain emphasis on environmental issues in the region during the past years will illustrate the (potential) capacity of national and international organizations to collaborate in order to develop and sustainably manage transboundary natural resources. The specific objectives and methods applied have been based on the need for collaboration articulated by the three countries involved.

The region considered in this study is split into three countries by the international borders—drawn up in 1894 during the Conference of Berlin—of Rwanda, the Democratic Republic of Congo (DR Congo or DRC, formerly Zaïre) and Uganda. It is further subdivided into two ecological units that do not take into account the international borders: the Virunga and the Bwindi Impenetrable Forest blocks. The Virunga forest is composed of three contiguous, but separate, national parks in DR Congo, Rwanda and Uganda. The Bwindi Impenetrable Forest is located primarily in Uganda, with a small portion crossing the border into DR Congo. (See Annex B for maps.) Since the ecological processes within each of these units are continuous, effective management and conservation requires collaboration among the three countries sharing them. An activity or event on one side of the border can have an impact across the entire unit.

The Virunga region is the area where the borders of the DR Congo, Rwanda and Uganda join as the Virunga chain of volcanoes, forming the sides of one of the arms of the Western Rift Valley. Conservation activities in the region date to the 1920s, but only since the late 1980s were mechanisms developed for the application of a regional approach to the entire ecosystem as a whole. Until then, a traditional approach of national-level conservation and ecosystem management was applied, focusing only on each portion of the ecosystem under the sovereign rule of the respective countries. Since the ecosystem as a whole, with its natural processes and requirements, is dependent on effective and non-opposing management in all three countries, the International Gorilla Conservation Programme has applied since 1991 a regional approach to its conservation work with the three national protected area authorities in Rwanda, DR Congo and Uganda. The approach has emphasized collaboration at the field level, with links extended to higher

political levels only after this collaboration has proven effective and started producing clear results. Frequently, transboundary collaboration focuses on establishing formalized agreements between governments to work together to manage and develop natural areas. In the case of the Virunga-Bwindi region, however, the emphasis has been on developing informal mechanisms for field-level collaboration. These mechanisms, once fully functional, can then be formalized and institutionalized in each country. Another example includes the Kgalagadi Transfrontier Park, formally designated as a Transfrontier Park in Botswana and South Africa, based on more than 60 years of local collaboration.

The transboundary approach toward regional conservation is the primary focus of the International Gorilla Conservation Programme (IGCP), a coalition of three international conservation organizations: African Wildlife Foundation (AWF), Fauna and Flora International (FFI) and WWF. The program was initiated in 1991 and has continued to operate in Rwanda, DR Congo and Uganda. IGCP works with the national protected area authorities in the three countries, the Office Rwandais du Tourisme et des Parcs Nationaux (ORTPN), the Institut Congolais pour la Conservation de la Nature (ICCN) and the Uganda Wildlife Authority (UWA), to strengthen the capacity for sustainable natural resource management in each country as well as regionally.

This case study of the Virunga-Bwindi region, describing the efforts to establish transboundary natural resource management and the achievements in the region will serve as an example for other regions and illustrate both the benefits and costs of such an approach. In Chapter II, the regional context of the transboundary program will be examined, thus providing the justification and basis for the specific approach used. In Chapter III, the process for the transboundary approach, as well as its rationale and methods will be described. The outputs and value of the approach and lessons learned will be presented in Chapter IV, as an analysis of transboundary natural resource management in this particular context. The analysis will also identify the anticipated developments and potential spin-offs of transboundary natural resource management, especially during times of political and social conflict, and the potential of developing cross-sectoral alliances. These long-term perspectives will be presented in Chapter V.

Chapter II. General Context

A. Geography and biodiversity value

Mountain ranges, as predominant and naturally dividing landscape features, have often guided geographical boundary designation (Lanjouw and Mann 1999). The ecological values of montane habitats have in many cases led to the establishment of parks and other protected areas. Perhaps, then, it is not very surprising that there are now 25 transfrontier mountain parks established throughout the world covering 33 countries (Poore 1992). By their very nature, these transfrontier parks suggest the value of cross-border cooperation and, optimally, management according to a regional framework.

The region considered in this case study is part of the Albertine Rift region, the western part of the Great Rift Valley named after the Belgian King Albert. The Albertine Rift is shared by Burundi, DR Congo, Rwanda and Uganda, continuing southward into Tanzania, Malawi and Mozambique. The northern parts of this region previously formed an extensive forest zone, which slowly eroded with human use in the past centuries. The acceleration of deforestation in the 20th century has led to fragmentation and has left only relatively small islands of forest separated by large expanses of agricultural lands.

The Virunga-Bwindi region includes two separate forest blocks, or ecological units, within one overall ecosystem. The first includes the Virunga chain of volcanoes (three national parks). The second forest block comprises the Bwindi Impenetrable Forest (one national park) only 30 kilometers to the north. The International Gorilla Conservation Programme has focused on the development of a regional, collaborative framework for conservation in the Virunga-Bwindi region, including these four national parks, and this transboundary program is the focus of this case study.

The Virungas, or Bufumbiro chain of volcanoes (Lebrun 1960), form an arc along the Albertine Rift Valley. The volcanoes, covered and surrounded by high- and medium-altitude forest, span the borders of the eastern DR Congo, northwestern Rwanda and southwestern Uganda, between 25° and 35° latitude south, and 29° and 30° longitude east. The international borders dissect the forested ecosystem, splitting it into three contiguous national parks: the Parc National des Virunga (PNVi) in DR Congo, the Parc National des Volcans (PNV) in Rwanda and the Mgahinga Gorilla National Park (MGNP) in Uganda. The Bwindi Impenetrable Forest Reserve (BINP) lies in Uganda, but it abuts forest patches within the Hunting Reserve of the Parc National des Virunga in DR Congo.

The afro-montane and medium altitude forests of the Virunga-Bwindi region

Overall, only about 5 percent of Africa's montane forests fall within protected areas (MacKinnon and MacKinnon 1986). The combination of great species richness and diversity, a high proportion of endemic species and significant numbers of rare and threatened wildlife have led the World Conservation Union (IUCN) and other conservation organizations to rate the montane forests of the Albertine rift in the highest priority for conservation in Africa (Hamilton 1996). In recognition of this rank and because they provide the last remaining habitat for the mountain gorillas, four main protected areas were established in DR Congo, Rwanda and Uganda:

- ▶ Parc National des Virunga (PNVi), in DR Congo, created in 1925 and designated as a World Heritage Site in 1979, and a World Heritage Site in Danger in 1994;
- ▶ Parc National des Volcans (PNV), in Rwanda, created in 1929 and designated as a Biosphere Reserve; and
- ▶ Bwindi Impenetrable Forest Reserve (BINP) and the Mgahinga Gorilla Game Reserve, in Uganda, both of which acquired National Park status in 1991. BINP is also designated as a World Heritage Site in Danger.

More detailed information on these parks is provided in Annex A.

The region has a very high level of annual rainfall and an altitudinal range of between 1,100 m and 4,511 m. The high levels of endemism may be attributed to the possibility that this region formed a glacial refugium during the Pleistocene Period. The varied habitats and altitudinal differences in the region have also allowed for the evolution of the rich biodiversity. In Bwindi and in the Virungas, different forest types interspersed with small clearings around the peaks provide a number of habitat types for a large number of bird and mammal species, including the endangered mountain gorilla. The movements of wildlife, including mountain gorillas, are not limited by political boundaries dissecting the contiguous forests of the Virungas, and the natural processes are continuous throughout the forest blocks.

The afro-montane vegetation is characterized by a high rate of evapotranspiration that increases the level of precipitation in the region. As such, the forested slopes of the Virunga massif provide a very important water-catchment area. For example, 0.6 percent of the land surface representing the PNV provides 10 percent of the water-catchment function for Rwanda (Weber 1987). The forests also curb soil erosion and flooding in the region and maintain dry season stream flow and local climates. Soil erosion is already at a critical level in southwestern Uganda, northwestern Rwanda and eastern DR Congo. The intensity of land use in this fertile part of the region has resulted in all forests outside of the national parks and forest reserves being cleared for agriculture, and people are cultivating their crops on hills with slopes steeper than 10 percent (Waller 1996). The region loses an esti-

Gorilla Taxonomy

Gorilla taxonomy is currently under scientific review. Gorillas were previously classified as one species (*Gorilla gorilla*) with three subspecies—western lowland (*G.g. gorilla*), eastern lowland (*G.g. graueri*), and mountain (*G.g. beringei*)—with both the Virunga and Bwindi populations called “mountain gorillas.” It has recently been proposed by the Primate Specialist Group of IUCN to split gorillas into two distinct species, the western gorilla and the eastern gorilla. The eastern gorilla (*Gorilla beringei*) includes the mountain gorilla (*G.b. beringei*) of the Virunga volcanoes, and the eastern lowland gorilla (*G.b. graueri*). The eastern gorilla also includes the Bwindi population, but ongoing debate and research will be required to determine whether the Bwindi population should be a separate subspecies or should be included with the Virunga subspecies. For the purposes of this paper, and while awaiting further scientific conclusions on the Bwindi population, the term “mountain gorillas” will be used to refer to both populations, and the populations will be referred to by their habitat names: Virungas and Bwindi.

mated 11 tons of soil per hectare per year through erosion (Waller 1996). When, for example, an Internally Displaced Persons camp was established in the Gishwati Forest Reserve in Rwanda after the war in 1994, the deforestation owing to the cultivation of crops caused entire slopes to be washed away (ORTPN, personal communication). As a result of this erosion, the Gishwati Forest Reserve is no longer considered viable for agriculture.

As little forest remains outside of the protected area network in this part of Africa, the importance of this local climate and the value of its hydrological role to the surrounding intensively cultivated region cannot be overstated. The montane areas here are among the most heavily populated parts of the continent, largely for the same reasons that these areas can host such a large diversity of species. The rich volcanic soil and high rainfall make the region ideal for agriculture—the primary livelihood strategy of the local populations. Consequently, the remaining forests in these areas are often under extreme pressure. It is estimated that more than 37 percent of afro-montane forests in Africa have been lost to agriculture or timber production (Wale Adeleke 1996).

B. Historical and political context of the region

The Virunga-Bwindi region is in the border area where eastern DR Congo, northwestern Rwanda and southwestern Uganda meet. This area, mountainous and highly fertile, has

been inhabited by numerous groups of people for centuries. Before the colonial era, many different groups inhabited the mountains and valleys, including hunter-gatherer groups (remnants of whom are now called Twa), cultivators and pastoralists. These groups were subdivided into clans, some of whom established political control over others. The divisions were not established along an ethnic or racial basis, but along political and economic relationships (Chretien and Triaud 1999). The international boundaries of Rwanda, DR Congo and Uganda were drawn up during the Conference of Berlin in 1894 by colonial powers. These boundaries did not respect the different social, political or cultural groupings at a local level, but were based primarily on geopolitical, economic and topographic considerations important to the colonial powers. Many groups of people sharing common language, religion, tradition and culture were divided by the new boundaries, which have been largely maintained to date.

During the colonial period, from the late nineteenth century to the middle of the twentieth century, many of the divisions between the different groupings became labeled as ethnic, or even racial, divisions and the colonial powers used these as the basis of their rule. In many cases, the colonialists based them on what they believed were existing political and ethnic structures, but often they imposed or strengthened hierarchies that had little basis in tradition (African Rights 1994). The method of governing was dubbed “indirect rule,” meaning that the colonialists were not ruling Rwanda directly, but through the local kings. In so doing, the colonialists exacerbated the existing subdivisions in Rwandan society, crystallizing a system that had been flexible due to its origins in status, rather than tribal or ethnic bases. This approach has created much of the division in the region between the different groups (labeled as “ethnic groups”).

Leaders in these countries have further exploited the divisions after independence, and numerous “ethnic” clashes have occurred throughout the region in the past 50 years. A colonial effort to import labor into certain regions of eastern DR Congo in the 1940s led to many people from Rwanda being brought to eastern DR Congo and nationalized as Congolese citizens. Although holding Congolese citizenship, these individuals still continue to be considered “Rwandan” because of their language, culture and origins. Clashes in the late 1950s in Rwanda between Hutu and Tutsi led to large numbers of the Tutsi population fleeing to Uganda and other neighboring countries. These refugees were never fully integrated in their host country, and remained as a “diaspora” in their new host country. Repeated clashes and violence against the Tutsi in Rwanda in 1963, 1967 and 1973 resulted in a large number of people fleeing to neighboring countries. Strains and clashes between other groups in DR Congo also contributed to the tension in the region. The Masisi and South Kivu regions have repeatedly seen clashes between Congolese groups and groups of Rwandan origin (“Banyarwanda”), as well as other ethnic clashes. The conflict and instability in Uganda, during the Amin and Obote regimes, led to many people moving across the borders into DR Congo, and northwards into Sudan. The wars in

Sudan, Somalia, and elsewhere in the region have also increased instability along the border areas, and the presence of refugees, militias and rebel groups in all of these countries. Specifically in the Virunga-Bwindi region, however, the numerous clashes among groups in Rwanda, eastern DR Congo and southwestern Uganda have led to much movement of people across the borders.

These factors all contributed to the attack, in October 1990, of the Rwandan Patriotic Front (RPF), from Uganda into Rwanda. The front steadily advanced on Kigali and in June 1994, President Habyarimana of Rwanda was killed. This triggered the now well-known genocide, which in the space of 100 days killed up to a million people (Ministry for Rehabilitation and Social Integration–Rwanda 1996). The arrival of the RPF in Kigali in July 1994 caused the army of the assassinated President Habyarimana, and the perpetrators of the genocide (the Interahamwe), alongside about two million people, mainly Hutu civilians, to flee the country into DR Congo, Burundi, Tanzania and Uganda (Joint Evaluation of Emergency Assistance to Rwanda 1996). The refugees spent more than two years in refugee camps and during that time, the former members of the Rwandan army (FAR) and the extremist rebels (Interahamwe) regrouped and formed political and military groupings intent on recapturing control of Rwanda (Jongmans 1999). The insurgency that followed, which has greatly disrupted the border regions, is described in detail in a number of publications, including the London-based African Rights' 1998 book, *Rwanda: The insurgency in the Northwest*.

At the end of 1996, the dismantling of refugee camps first in DR Congo and then in Tanzania prompted the forced and rapid repatriation of over two million refugees to Rwanda. This was followed by degradation of the security situation inside Rwanda, and the country had to grapple with the formidable challenges of resettlement, reintegration and reconciliation in a post-genocide climate, with continued attacks from rebels based in DR Congo (African Rights 1998). In DR Congo, the Alliance of Democratic Forces for the Liberation of Zaïre (ADFL) began a military operation in mid-1996 that took over the country in May 1997. In 1998, a new rebel force, the Rassemblement Congolais pour la Démocratie (RCD) launched an attack on Kinshasa and this war is still continuing, with the RCD subdivided into three groups—RCD, RCD-MLC (Mouvement pour la Libération du Congo), and RCD-ML (Mouvement de la Libération)—supported by troops from neighboring countries. Uganda as well as Rwanda has been affected throughout this period by population movements associated with Rwandan refugees; insurgency from the camps in DR Congo and as a result of the war in eastern Kivu; and escalating cross-border conflict with rebel groups based in DR Congo and in Sudan (IGCP newsletters).

The reasons for the conflicts along the border regions between DR Congo, Rwanda and Uganda have not been resolved (Duly 2000). Interahamwe militias still roam in the forests in DR Congo. Rebel groups based in DR Congo still attack Rwanda and Uganda.

Clashes within DR Congo, between different groups, still destabilize the country. The conflict between the Rwandan and Ugandan-backed rebels in eastern DR Congo, and President Kabila's forces in the west still ensure that political and military objectives are at the forefront. To date, seven African nations and numerous rebel groups are engaged in the conflict in DR Congo (International Crisis Group 2000).

The Virunga National Park in DR Congo was established in 1925 as the Parc National Albert, Africa's oldest national park. The Volcano National Park in Rwanda was created in 1929, as a contiguous park with the Virunga National Park. Both the Mgahinga and Bwindi Reserves were created much later, after independence in Uganda. The Virunga and Volcano National Parks were established to protect the mountain gorillas, and the forest on the volcanoes along the border. As a consequence of this early protection, the forest has benefited from conservation measures for a number of generations—and thus the displacement of local people to create the parks, accompanied by the disturbance of traditional land uses, has been less of a problem in this area than in other parts of the continent. The situation is not the same in Uganda, where the game and forest reserves, and then the national parks, were established much more recently. As a consequence, people's lifestyles, movements and traditional land use were limited by the creation of the parks.

C. Stakeholders in the region

1. Protected area and wildlife authorities in the region

Rwanda's Ministry of Commerce, Industry and Tourism; the Ministry of Land, Reinstallation and Environment; and the Office Rwandais du Tourisme et des Parcs Nationaux (ORTPN)

The Government of Rwanda has engaged in a number of comprehensive Ministry restructuring exercises over the past years, and environmental issues have shifted among a number of ministries. The restructuring of the government after the war ended in 1994 resulted in the dissolution of the Ministry of Environment and Tourism (MINETO). This Ministry had been created in 1992 to develop policy for the environment and tourism sectors, and after the war these two sectors were divided and placed under two different ministries. The environment sector is now handled by the Ministry of Land, Reinstallation and Environment. The tourism sector is attributed to the Ministry of Commerce, Industry and Tourism. A third Ministry is responsible for agriculture and forests. In a country where well over 90 percent of the population is involved in agriculture, and where fuel-wood consumption represents approximately 95 percent of total energy consumption, the Ministry of Agriculture plays a critical role in resource and land management (IGCP 1997).

The Office Rwandais du Tourisme et des Parcs Nationaux (ORTPN) was created in 1973 as the national authority managing Rwanda's parks and tourism sector, and was placed under the supervision of the President's Office. With the recent restructuring, ORTPN's parent Ministry shifted from the MINETO to two new supervising ministries: the new Ministry of Commerce, Industry and Tourism and the Ministry of Land, Reinstallation and Environment (MINETER). Aside from this administrative supervision, the ORTPN remains a parastatal organization and therefore financially and legally autonomous from its parent Ministries. The ORTPN is represented in each park by a Park Warden (Conservateur) and his staff, who are responsible for law enforcement, protection and surveillance, research and monitoring, education and extension work, tourism, management and administration. Park guards and guides work under each of their relevant superiors in the park. The majority of the revenues that accrue to ORTPN come from mountain gorilla tourism in the PNV. ORTPN staff manages two national parks in Rwanda, the Parc National de l'Akagera and the Parc National des Volcans, and two forest reserves, the Réserve Forestière de Nyungwe and the Réserve Forestière de Gishwati. The Nyungwe Forest Reserve is currently being reclassified as a National Park. The Gishwati Forest Reserve has been extensively degraded owing to the presence of displaced persons and refugees, and has not been managed as a Forest Reserve by the ORTPN since 1994.

Uganda Wildlife Authority (UWA)

Uganda restructured its management system for protected areas, merging Uganda National Parks and the Uganda Game Department to form the parastatal Uganda Wildlife Authority (UWA), which started operations in August 1996. UWA falls under the Ministry of Tourism, Trade and Industry. In its restructuring, UWA defined its objectives as follows:

- ▶ To safeguard protected areas and biodiversity of Uganda;
- ▶ To increase both participation in and derived benefits of local communities from protected areas and wildlife;
- ▶ To develop national based tourism; and
- ▶ To coordinate activities with the National Environmental Management Agency (NEMA).

As in Rwanda, each of the two parks is managed by a Chief Park Warden. He is supported by Wardens responsible for tourism, community conservation, law enforcement, and staff for administration and management. Park rangers and guides work under each of their relevant superiors within the park.

Democratic Republic of Congo: Institut Congolais pour la Conservation de la Nature (ICCN)

The ICCN is the custodian of DR Congo's protected areas. Since the political changes incurred in 1997, the environment falls under the jurisdiction of the Ministry of Land

Tenure, Environment, Conservation of Nature, Fisheries and Forests (Ministère des Affaires Foncières, Environnement, Conservation de la Nature, Pêche et Forêts). The ICCN is a parastatal body having a relative degree of financial and legal autonomy, but it comes under the overall responsibility of the Ministry. The ICCN headquarters is based in Kinshasa (the Direction Générale), with decentralized stations in two Provincial Directorates (Directions Provinciales). In eastern DR Congo, protected areas are under the management of the North Kivu and South Kivu Provincial Directorates. Details on the former functioning and structure of the ICCN (then IZCN) are provided in the reports of Wathaut (1996) and d'Huart (1987). In early 1994, a Provisional Supervisory Committee (CSpro) temporarily replaced the Director General of the ICCN. The current Director General of the ICCN is named as an interim function, until a presidential nominee can take over the function. Over the last 10 years the financial resources of the institution have dropped drastically, owing to the economic, social and political chaos prevailing in the country. The ICCN staff has been paid sporadically, with unrealistic salaries not taking into account the very high inflation rate. Since the division of the country into sections controlled by President Kabila and the rebels in the East and Northeast, salaries have not been paid regularly to the ICCN staff (that is, since 1996). Without support of outside agencies, such as international conservation NGOs, the parks would have become protected on paper only. Although the Ministry of Finance in Kinshasa has established procedures for the financing and functioning of the Institute, the war and the political divisions in the country have brought the generation of revenue to a standstill. Prior to the war, the ICCN was financially autonomous, and its primary source of revenue was tourism.

In DR Congo, all parks are managed by Conservateurs en Chefs (Chief Park Wardens), supported by management-level staff responsible for tourism, community conservation, law enforcement, protection and surveillance, research and monitoring, and staff for administration and management. Park rangers and guides work under each of their relevant superiors within the park. The Virunga National Park is divided into three principal sectors, each managed by its own Conservateur en Chef and his staff. For the overall supervision of the park, a Directeur Provincial is based in Goma. The Directeur Provincial is in effect a decentralized office of the ICCN Headquarters of Kinshasa. Because of the political divisions in eastern DR Congo, the authorities based in Goma have also named a Coordinator for all the ICCN areas under rebel control. This Coordinator is responsible for supervising the management of all the parks in the east of the country. This position was newly created in 2000, and the responsibilities, budget and staff of the Coordinator still have to be fully defined.

The fighting and instability in eastern DR Congo since October 1996 has put additional stress on the PNVi and other parks of the region, and has prevented most donors from continuing their support to the parks and environment and development programs. Only IGCP and WWF, WCS, GTZ, GIC and IRF (see page vii for all acronyms and abbreviations)

viations) have continued their environmental activities in the east of the country throughout this period. Most bilateral and multilateral agencies for cooperation and development, including environmental programs, pulled out during the conflict.

The differences in budget, numbers and qualifications of staff, and salaries among the three countries are a major consideration in the establishment of regional collaboration. The facts that salaries have not been paid regularly in the DR Congo for more than five years, and that salary levels are inferior to those paid in Uganda and Rwanda, are factors in the potential management of these parks as one shared ecosystem.

2. Communities surrounding protected areas

The areas surrounding the afro-montane and medium altitude forests shared by Rwanda, Uganda and DR Congo are densely populated, with countrywide per capita rural population densities averaging 300 persons per square kilometer (IGCP 1997). These population densities increase around protected areas in the region owing to the rich natural resources and soil. For example, in Rwanda, population densities around Parc National des Volcans exceed 400 persons per square kilometer, and in some rural areas attain 820 people per square kilometer (Waller 1996). Population estimates for those living adjacent to protected areas in the regions are as follows: 675,000 around PNVi-south (DR Congo); 8,700 around MGNP (Uganda); 93,000 around the BINP (Uganda); and 134,000 around the PNV (Rwanda), bringing the total population living around the program area to 910,700 (IGCP 1997). With an average regional population growth rate of over 3 percent, the total population living around protected areas in the area will grow to well over one million in less than three years (IGCP 1996).

Over 90 percent of the populations surrounding the region's protected areas practice subsistence level agriculture, and many access the protected areas to complement their food and livelihood production strategies (IGCP 1996). The national parks do not have buffer zones between the local communities and the parks' resource base. Detailed information regarding practices, behaviors and attitudes of various local communities with regard to protected area resources does not currently exist.

Protected area authorities in the region, however, often cite that local communities rely on and regularly exploit the protected areas' resources for the following:

- ▶ Water;
- ▶ Wood for fuel and construction;
- ▶ Bamboo;

- ▶ Animals;
- ▶ Plants for food and medicinal purposes; and
- ▶ Bee-keeping (Bensted-Smith, Infield, Otekat, and Thompson-Handler 1995).

Women in particular play a significant role in communities surrounding the protected areas in the region. In Rwanda, local communities were radically fractured by the 1994 genocide, and the percentage of women-headed households in the country has increased from 20 percent pre-war to between 30 and 60 percent post-war (African Rights 1994). Women household heads face additional challenges as they assume both male and female traditional household production and management responsibilities, without the right to inherit land from their fathers. In Rwanda the legislation regarding land tenure is currently being revised to allow women to own and inherit land. DR Congo and neighboring Rwanda face similar challenges as local populations try to maintain a minimum level of household livelihood security during the period of instability. As was the case in Rwanda, a likely consequence of war in DR Congo will be an increase in the number of women-headed households.

Traditionally, girls and women carry out the collection of water and fuelwood, food preparation and household management (IGCP 1996). Women, although not influential in traditional decision-making processes or leadership hierarchies, are highly influential within the household unit. Their role with respect to park conservation and exploitation is critical, therefore, and they have been a specific target group in sensitization activities and are encouraged to participate in park-community participatory management meetings.

A number of different cultural and ethnic groups populate this region and have coexisted for generations. The international borders between Rwanda, Democratic Republic of Congo and Uganda do not follow the divisions among these groups, and similar languages, cultures and traditions are found on all three sides of the borders. This similarity across the borders has provided an incentive for the establishment of regional approaches in development and conservation, as well as a mechanism for implementing them. When park staff cannot communicate with each other in French or English, a common local language can always be found. Most of the people along the borders are motivated to work together, owing to shared background and culture. This has been a source of strength for the regional programs.

3. Military and civil authorities in the region

The park authorities in all three countries work closely with the local civil and military authorities. The authorities at the different administrative levels (parish/cellule,

district/prefecture and commune) work with the wardens and guards, and many extension and sensitization activities have been jointly implemented.

In all three countries, the park staff also works closely with the military authorities, to ensure security in and around the parks for park staff as well as visitors to the park. In Rwanda and DR Congo, the military has provided training for park guards, and park management has held special training sessions with military staff on the value of conservation and the forest. Owing to the political climate, the park guards patrol and monitor the park accompanied by military staff. Joint military-park patrols are currently the norm in all three countries, and joint patrols between countries also involve both park staff and military. The military also provides protection for tourists, researchers and veterinarians entering the park to conduct their normal activities. Although the collaboration between park staff and military authorities has been positive overall, the need for collaboration was demonstrated in the past by the military's lack of understanding of the value of the forest, and their exploitation of the resources. In DR Congo, for example, the military has frequently used the wildlife in the park to supplement their rations. Military presence in the park has also had a negative effect in terms of the risk of disease transmission to gorillas. The collaboration was therefore a constructive solution sought to resolve a conflict and potential threat.

With respect to the conflicts with local communities over access to natural resources in the park, problem animals damaging crops in fields near the edge of the park, and other conflicts with local populations, the park is also seeking to find solutions and mechanisms to strengthen collaboration. Programs to address these conflicts are being developed by IGCP and partners in all three countries.

D. Economic context

Subsistence agriculture is the primary livelihood strategy of the population living around the Virunga-Bwindi region (IGCP 1996). The industrial and business sectors are poorly developed in this area, offering few alternatives to the local populations, and those that were functional before the war have been seriously affected by the insecurity and political chaos in the region. In much of the region, the population is classified as living in extreme poverty, with more than 50 percent without sufficient land to meet basic needs. In Uganda, 16 percent of the population in this region is landless, and in northwestern Rwanda, the figure is much higher (IGCP 1996). The Bwindi Impenetrable and Mgahinga Gorilla National Parks in Uganda were created very recently, thus imposing a limit on the land available to the communities and creating a negative perception with respect to both the parks and authorities managing them.

In addition to the ecological function of the forest, described in Chapter II, Section A above, each of the four parks considered in this study has an important economic function. Tourism-based revenue, generated by the parks from visits to habituated gorilla groups and the forest, is significant. Before the war, tourism (primarily gorilla tourism) was the third largest source of foreign revenue for Rwanda. The funds generated from gorilla tourism were at one time sufficient to fund almost all the park management operations of all the parks in each of the three countries.

In Uganda, from 1994 to 1999, gorilla tourism attracted net foreign exchange earnings of about US\$7.7 million, generated US\$15.4 million of sales for the economy, contributed US\$4.77 million in government tax revenues, supported close to 1,700 person years of jobs, and contributed US\$6.93 million to the national income (Moyini Yakobo and Uwimbabazi 2000). The direct funds generated from the sale of gorilla permits covered approximately half the self-generated management budget of the Uganda Wildlife Authority in 1999. IGCP has been instrumental in developing sustainable tourism in Uganda, and has contributed significantly to the development and improvement of gorilla-based tourism programs in DR Congo and Rwanda (both of which started gorilla tourism before the creation of IGCP). The potential that the mountain gorilla has to draw tourists to these countries, thus enabling tourists to spend time visiting other areas as well, is enormous.

In Uganda, a portion of the funds generated from gorilla tourism is managed by committees composed of park staff and representatives of the local communities and districts, and they are used to fund projects in the surrounding communities.

E. Sectoral policies and legislation in the region

1. National environmental policies

Each country within the Albertine Rift has a distinct national framework for environmental protection and natural resource management. In general, the system of conservation areas within the region and their enabling legislation were created during the colonial period and little was changed after independence. In DR Congo these policies are currently being reviewed and modified. Uganda is currently in a very dynamic period of institutional reform, and has advanced further than Rwanda and DR Congo in the area of environmental policy and legislation. Common to all countries, however, is a low national budget for environmental concerns, making the enforcement of protected area legislation difficult (IGCP 1996). Each of the countries still relies to some extent on a system of “fences and fines” for protected area management, and lacks the institutional

structure for involving local populations consistently in management decisions. The thinking behind this approach is changing, however, and the countries are recognizing the importance of involving local and district authorities in the management of natural resources and protected areas.

Within these three countries, a number of government agencies are responsible for environmental protection and the conservation of natural resources. The agencies are all limited, to an extent, by their weak political position, financial means, technical and managerial capacity, lack of management information relating to protected areas and the national environment, and insufficient interagency coordination. The lack of clear political will and importance attributed to the sustainable management of natural resources and the environment has been an important constraint for the responsible agencies.

In May of 1991, Rwanda adopted a National Environmental Strategy and Environmental Action Plan. Following the UN Conference on Environment and Development in Rio de Janeiro, Brazil in June of 1992, and recommendations that followed in the Agenda 21 report in August 1993, the then-Ministry of Environment and Tourism created a provisional Agenda 21. Both documents are no longer up to date and lack information on the changes that have resulted from the war and ensuing refugee crisis. Neither of the documents has been updated to include recommendations on how to deal with the resettlement of refugees, both from the recent upheaval and from the last refugee crisis of the 1950s.

Likewise, Uganda prepared a National Environment Action Plan in 1993 and also during that year conducted a review of the wildlife sector. These strategies and documents need to be reviewed and updated in order to be fully effective. The Uganda Forest Department is under the separate authority of the Ministry of Natural Resources, and this sector has been rehabilitated under an EU-funded project. Finally, the DR Congo has yet to prepare a National Environment Action Plan.

Owing to their shared Belgian colonial past, official institutions in DR Congo and Rwanda operate on the basis of similar administrative and bureaucratic systems and legislation with respect to the management of protected areas and the environment. In Uganda, on the other hand, the official administration is based on the Anglo-Saxon system. The differences in legislation and policy have contributed to the differences in conservation approaches in the three countries. In Uganda, participation by local populations and district authorities in the management of protected areas with the park authorities has been under way for a number of years. In neither Rwanda nor DR Congo has any formal and institutionalized mechanism of participatory management been established to date. The use of specific natural resources from multiple-use zones within the protected areas in

Uganda, a practice that is not covered by legislation in Rwanda and DR Congo, illustrates another example of the differences between the countries. These differences can have potentially negative repercussions on efforts at harmonizing management approaches in the three protected areas included in a transfrontier protected area. Processes to bring together both the legal and policy approaches in the three countries is a key component of the IGCP strategy.

2. Regional environmental policies and legislation

Worldwide, regional cooperation in support of conservation has grown significantly over the past decade. This ranges from regional policy and legislative forums to regional environmental databases. In the Albertine Rift, the regional initiatives outlined below (in addition to IGCP) have been active. These mechanisms have opened channels of communication between the different countries and formally involved the three governments in mechanisms supportive of regional collaboration. Although primarily economic mechanisms, the economic importance of the four parks in question will strengthen the potential for regional collaboration, especially with respect to tourism (IGCP 1997).

1. “**Communauté Economique des Pays des Grands Lacs**” (CEPGL), or **Economic Community of the Great Lakes Countries**, was initiated in 1976 in Rwanda, DR Congo and Burundi, with a goal of subregional economic integration. CEPGL recognized the role of environmental protection in sustainable development and the regional nature of many of the environmental issues for the Great Lakes region.
2. **Preferential Trade Area (PTA) or Zone d’Echanges Préférentiels (ZEP)** was a regional organization that included Burundi, Kenya, Rwanda, Tanzania and DR Congo, with the objective of promoting preferential trade between its member countries. This PTA has now merged with southern African States into the **COMESA—Common Market for Eastern and Southern Africa**.
3. **Organisation du Bassin de la Kagera (OBK)** included Burundi, Rwanda, Tanzania and Uganda and promoted industrial and economic cooperation in the region.

These initiatives are in varying degrees of inactivity, given events over the past 10 years in Rwanda, DR Congo and Burundi. Current priorities for rehabilitation and development in the Great Lakes Region are such that environmental issues are given comparatively little attention. The legal, political and economic mechanisms provided by these regional agreements could potentially serve as tools to facilitate collaboration in conservation, tourism and management of a transborder habitat by the three countries.

3. International environmental policies, conventions and treaties

The Governments of Rwanda, Uganda and DR Congo are party to several international conventions and treaties that are relevant to regional conservation of the afro-montane forest. These international agreements can help to reinforce regional cooperation and resource management. By presenting legal standards and actions that states commit them-

Individual Country Membership in Conventions and Treaties

Conventions and Treaties	Rwanda	Uganda	DRC
African Convention on the Conservation of Nature and Natural Resources, Algiers, 1968 (UNTS 14689)—Article 16	1980	1977	1976
Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972 (UNTS 15511)—Article 6	no	1987	1974
Convention on International Trade in Endangered Species of Wild Fauna and Flora, Washington, 1973 (UNTS 14537)	1981	1991	1976
Convention on Wetlands of International Importance, Ramsar, Iran, 1971 (UNTS 14583)	no	1998	1996
Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 1979 (UNTS 28395)	no	no	1990
International Tropical Timber Agreement, Geneva, 1983 (UNTS 23317)—Expired January 1, 1997	no	no	1990
International Tropical Timber Agreement, Geneva, 1994 (UNTS 33484)	no	no	no
Convention on Biological Diversity, Rio de Janeiro, 1992 (UNTS 30619)—Articles 3 and 5	1996	1993	1994
Convention on the Prohibition of Anti-Personnel Mines, Ottawa, 1997 (UNTS 35597)	no	1999	no

selves to, and by providing mechanisms for control and reinforcement of standards, these treaties are strong tools for governance. They also identify the role of the international community in supporting the explicit objectives of each of the different conventions and treaties, through the adoption of and adherence to international standards, conventions and treaties. Adoption of similar legal and political tools across the region can potentially facilitate transboundary collaboration. The membership of each country in these agreements is summarized in the table on page 17 (IGCP 1996; Arthur Westing, personal communication dated January 9, 2001). One of the priorities for organizations and programs working to strengthen transboundary natural resource management is to encourage the governments of the countries involved to become states parties to the different key instruments available to them. These instruments, which assist effective protection and management of resources at both national and regional levels, are critical for effective transboundary collaboration to take place.

F. The transboundary natural resource management approach

The Virunga-Bwindi region benefits from a number of regional and international treaties supporting conservation and collaboration across the borders. Historically, the region was part of one country. The similar ethnic and cultural backgrounds of the people and their shared languages and livelihood strategies also support regional approaches to the management of their shared natural resources. The protected area management authorities, although established along different administrative and bureaucratic systems and legislation, share many common features. All three of them are parastatal organizations with relative financial and administrative autonomy, and comparable management structures. All three manage the protected areas, classified in accordance with IUCN guidelines, using “classical” conservation approaches. These similarities contribute to the rationale behind the regional approach of the International Gorilla Conservation Programme, to facilitate the management of the ecosystem as one shared unit. The context allows for harmonized conservation approaches, coordinated activities and the development of an overall regional framework for effective management of the shared ecosystem. There is an opportunistic element to this philosophy. The primary justification for the transboundary approach, however, is the fact that effective management of this region can take place only through cooperation. The threats to the ecosystems come from all three sides of the border, which also *benefit* from the ecosystem. Effective management will depend on non-conflicting approaches to management, and cooperation in transfrontier issues.

Chapter III. The Process of Transboundary Collaboration

A. Rationale

The region's mountain gorillas, a rare and charismatic species of great ape, attract a great deal of international and national attention. They are found in only two blocks of forest—no others exist elsewhere, not even in captivity. The populations total approximately 355 for the Virungas, and 300 for Bwindi [IGCP, DFGF, ITFC and Max Planck Institute Press Release, January 22, 2001 (IRIN); McNeilage, Plumptre, Brock-Doyle, and Vedder (2001); Aveling and Aveling (1989)]. The dense human population living on the land surrounding these two forest blocks limits the habitat of the gorillas. Significant habitat expansion is not a reality. The survival of these creatures, and their habitat, therefore depends on the maintenance of the integrity of the remaining forest. As a flagship species for the area, ranging across the three borders within the relatively small blocks of forest, the gorillas must be protected equally effectively from all three sides. Similar approaches must be applied and the authorities must concert their efforts in order to ensure that the protection is effective.

The ecological function of the forest was described to some extent above, in Chapters I and II. The forest plays an important water-catchment function, as well as ensuring the protection of soil stability in the region. The Virunga and Bwindi forests are therefore not only important as the natural habitat for a large diversity of wildlife, including a number of endangered species—but also for maintaining the ecological processes necessary for the agricultural livelihoods of the people in this region. As the forests are shared by three countries, it is necessary for the three governments to work together to ensure that management and conservation are effective.

The focus of the International Gorilla Conservation Programme has been primarily on the park authorities in the three countries. The emphasis has been on strengthening the capacity of each of the three authorities to effectively manage the forested parks as a regional ecosystem. The differences in park management styles, institutional capacity and budgets, as described in Chapter II, has led IGCP to focus on the development of harmonized approaches and collaborative mechanisms for management as well as funding of the parks (such as the development of regional tourism). Once these mechanisms are active, all three countries will operate on similar bases, with similar potential, profiles and requirements.

The work with local communities and other interest groups has been through the park authorities, and in collaboration with other conservation and development partners in the region. The activities relating to the communities surrounding the protected areas, therefore, are activities strengthening the capacity of the park authorities to engage the local communities in participatory management, share conservation benefits, and sensitize the various groups regarding the importance and value of the forested ecosystem. In Rwanda, this includes the establishment of local sensitization groups (Animateurs de la Conservation) drawn from the local community, and park-community Local Defence Forces, to work with the military in ensuring security.

B. History of transboundary collaboration

With the initiation of the Mountain Gorilla Project (formed by the African Wildlife Foundation, WWF, Fauna and Flora International and other conservation organizations) in Rwanda in 1979 (Vedder and Weber 1990), contacts were established between the protected area authorities at headquarters level in Rwanda and Uganda, although generally on an informal basis. Later, similar conservation activities were also initiated in DR Congo (for example, activities implemented by the Frankfurt Zoological Society from 1985 to 1990, and by WWF from 1986 to the present), and bilateral commissions (primarily between Rwanda and Uganda and between Rwanda and DR Congo) were held on an ad hoc basis. They generally dealt with aspects linked to the development of tourism, however, or specific problems linked to tourist visits to gorilla habitats that tended to move along and across the frontier zone between Rwanda and DR Congo.

It was only in 1989 that the conservation of afro-montane forest ecosystems became the subject of a regional forum, with the organization of the first Afro-montane Forest Conference/Seminar on the conservation of afro-montane forests, held in Cyangugu, Rwanda. Subsequently, other conferences were organized in Bujumbura (Burundi) in 1992 and in Mbarara (Uganda) in 1994. These workshops provided the opportunity for the different countries with afro-montane forests to forge links and for some to initiate, or reinforce, contacts with the objective of improving the management of transfrontier protected areas (for example, Kibira-Nyungwe, Virunga massif, Mount Elgon, and Ruwenzori massif). Although they provided the opportunity to formally bring together protected area managers and national authorities of a number of African countries, the conferences were organized sporadically. Follow-up between the different sessions of the workshops was generally superficial, limited to the drafting of workshop reports for each session and the organization of the next workshop, without monitoring and supervision of the implementation of recommendations.

C. IGCP's strategy: Phases and emphasis

As mentioned earlier, the International Gorilla Conservation Programme was established in 1991, as a regional program in the Virunga-Bwindi region, involving a coalition of three international conservation organizations: the African Wildlife Foundation (AWF), Fauna and Flora International (FFI) and WWF. The program evolved from the Mountain Gorilla Project (MGP), initiated in 1979. The MGP, however, focused on Rwanda only. IGCP was an evolution in recognition of the need to address afro-montane forest and mountain gorilla conservation from a regional perspective. The program was the result of a stakeholders' meeting held in early 1991, called by and involving the three coalition members and the protected area authorities from Rwanda, DR Congo and Uganda. During this meeting it was agreed that IGCP would work in partnership with the three protected area authorities toward the conservation of the mountain gorillas and their habitats throughout the region, and that IGCP would focus on establishing a framework for regional collaboration toward this goal.

IGCP has integrated its framework for regional collaboration with its objective of strengthening the capacity of the protected area authorities in the three countries, to ensure the conservation of the regional afro-montane forests and the mountain gorillas. As stated earlier, environmental issues are not always considered a high priority for the governments of the three countries, since they are struggling with poverty and lack of alternative sources of livelihood for a large proportion of their rural populations. Pressures on natural resources, and the environment, are enormous. As described in Chapter II, however, the potential of the forests for providing ecological, social and economic benefits also is great. Conservation, therefore, is critical.

1. Definition and objectives of transboundary natural resource management

To examine the processes used by IGCP and the three protected area authorities, it is necessary to define Transboundary Natural Resource Management and its objectives. Transboundary Natural Resource Management is defined by the Biodiversity Support Program as "any process of cooperation across boundaries that facilitates or improves the management of natural resources, to the benefit of parties in the area concerned" (Biodiversity Support Program 1999).

The IUCN has defined a Transboundary Protected Area for Peace and Cooperation (or Park for Peace) as an area where there is a clear biodiversity objective and peace objective and where cooperation between at least two countries or jurisdictions is a char-

acteristic (IUCN 2000). A Park for Peace, as defined by IUCN, has a number of objectives, which include the following:

- ▶ Cooperative conservation of biodiversity and other natural and cultural values across boundaries;
- ▶ Promotion of landscape-level ecosystem management through integrated bioregional land-use planning and management;
- ▶ Building of trust, understanding, reconciliation and cooperation among governments, nongovernmental organizations, communities, users and other stakeholders;
- ▶ Sharing of biodiversity and cultural resource management skills and experience;
- ▶ Greater effectiveness and efficiency of cooperative management programs;
- ▶ Access to and equitable and sustainable use of natural resources, consistent with national sovereignty;
- ▶ Enhancement of the benefits of conservation and promoting benefit sharing across boundaries among stakeholders; and
- ▶ Cooperative research and information management programs.

The Virunga-Bwindi Region fits with both the transboundary natural resource management and Park for Peace definitions and objectives. The shared forest habitat raises the objective of cooperation for improved management of the ecosystem, and the history of conflict in the region raises the objective of peace building between the countries. The transboundary collaboration established between the protected area authorities in the Virungas and Bwindi is an example of how progress can be made toward continuing to attain these objectives even during times of conflict.

2. IGCP-phased approach to regional collaboration

The collaborative transboundary program has been the initiative of the three protected area authorities in Rwanda, Democratic Republic of Congo and Uganda, and the International Gorilla Conservation Programme. The governments of the three countries gave IGCP the mandate to develop a regional framework and mechanisms for collaboration, and it was independently agreed by the responsible ministries in each country that the three protected area authorities (ORTPN, ICCN and UWA) would participate as National Representatives and form an integral part of the IGCP team. Participatory planning has continued to be a *modus operandi* for the program and has established collaboration at all levels of the partnership—from the local level all the way up to the ministry level. To fill this mandate of developing a regional framework and mechanisms for collaboration, IGCP has developed a regional strategy with a phased approach.

Phase I: Field-based coordination and collaboration

In the preliminary phase, the focus is on harmonization and coordination of management approaches, and development of field-based, informal mechanisms for collaboration. These approaches and mechanisms respond to the objectives of transborder cooperation outlined above. The protected area authorities from the four parks work as a team to manage the forest blocks as shared units and thereby strengthen conservation impact. This phase emphasizes regular communication between wardens and management staff of the parks, sharing of information on the situation in the four parks, and joint planning and implementation of activities.

Phase II: Formalization of regional collaboration

The existence and use of the harmonized approaches in the three countries will facilitate the second phase of the strategy—formalization of the transborder collaboration and regional policies. The second phase, however, is dependent on a minimum level of political entente among the official governments of the three countries, and this has been a major constraint in the region for the past 10 years. It is the belief of IGCP that the realization of the objectives of regional collaboration, such as improved management of the shared forest and its resources, is a function primarily of field-based collaboration, rather than official agreements. Experience shows that formally designated protected areas are frequently far from effectively protected on the ground. Ideally, the two should complement each other, and this is the goal of the phased approach. Formalization of the field-based coordination and collaboration is necessary in order to ensure that the principles are institutionalized and not dependent on individuals who know and trust one another. In order to provide both the structure and principles for sustained collaboration over time and through changing political and economic circumstances, the processes and activities involved in regional collaboration must be included in strategic and operational planning, and time and resources must be allocated to these activities.

Phase III: Formal designation of a transboundary protected area

A final phase could involve the signing of a formal agreement among the three governments, establishing a transborder protected area (TBPA). The agreement would outline in its preamble the legislative background of the TBPA, define its purpose, describe the parties and the endorsing partners, and define the protected area and its structures (a joint commission or other mechanism) and modes of operation. Such an agreement would strengthen and provide political support to the institutions involved in regional collaboration, and facilitate the evolution and adaptation of collaborative structures and approaches over time.

By focusing on the protected area authorities, strengthening their ability to effectively manage the protected areas, and demonstrating the potential economic as well as ecological value of the forest, the importance attributed to environmental issues has slowly increased over the years. As a consequence of the emphasis on informal, field-based mechanisms for collaboration, the political tensions in the region have not impeded regional collaboration throughout the past 10 years of conflict, and this collaboration has strengthened the impact of environmental activities.

3. Emphasis of IGCP's strategy for regional collaboration

To implement its regional strategy, IGCP has worked in two ways:

1. Develop specific regional initiatives; and
2. Incorporate a regional element in national-based activities.

Owing to the constantly changing situation in the three countries, and the sometimes very different needs and priorities, IGCP has optimized on opportunities presented in each of the three countries, and has targeted specific regional activities. The conservation actions developed to respond to these needs were then used to forge regional links, to ensure that all three countries benefited from the actions.

D. Mechanisms established for transboundary collaboration

1. Institutional mechanisms

Regional-level communication and planning

In the past, the three protected area authorities sharing the management responsibility of the Virungas each managed the parks in their country separately. The Protected Area Management Authorities at headquarters managed the wardens and other senior staff in the parks, who in turn were responsible for the rangers and guides, and other workers in each park. Mechanisms for regional communication and collaboration among the park authorities did not exist at any level. In response, IGCP set out to articulate and illustrate the need for and importance of regional collaboration, and develop the mechanisms, with the park authorities, to enable it. One of the key tools for collaboration is communication, and IGCP worked to establish common communication protocols and mechanisms,

including radio links between the park headquarters in the four parks. IGCP also organized, funded and facilitated quarterly regional meetings, bringing together key protected area authority staff from the three countries, including both field (wardens, assistant wardens and other key staff members) and headquarters staff. The regional meetings continued throughout the war, albeit less regularly, and have involved topics such as contingency planning in conflict situations, planning for a transboundary protected area (park for peace), reduction of the risk of disease transmission between humans and gorillas, and the implementation of collaborative activities. The regional meetings are a primary mechanism for the organization of joint activities, and updating colleagues on the political/security situation and environmental concerns, in all four parks. Partner organizations and other nongovernmental organizations from a number of different sectors (development, humanitarian) working in the region also attend the regional meetings, thus placing the emphasis on the regional ecosystem, rather than on specific sites.

The regional meetings have been identified by the staff of the protected area authorities as the cornerstone of the transboundary collaboration among the three countries, and have contributed to the development of a team spirit. The war and ongoing political crises in the region have made effective conservation and individual survival extremely difficult. The knowledge that each person is part of a team, and that others are struggling with similar issues, has contributed to each person's motivation and ability to cope. During the recent evaluation of the regional meetings, these issues were raised and identified by the park staff as some of the gatherings' greatest achievements. As a result of the regional meetings, the five wardens of the involved parks have established a Management and Coordination Committee, which meets every four months to ensure effective coordination among the four parks. This committee is independent of IGCP—it was created through the initiative of the park authorities, based on the strong institutional and personal links developed among them.

Regional-level ecological monitoring and management

In 1996, IGCP started the development of a Ranger-Based Monitoring program (RBM) with the park authorities. The objective of the program is regular monitoring of the forest, by park rangers, for human use of the habitat (poaching, woodcutting, etc.), ecological processes in the forest, and specific key species (including the mountain gorilla). The monitoring feeds directly into the day-to-day management of the park and enables surveillance and specific interventions to be based on solid data. This can include where to send patrols, based on activities of poachers, availability of seasonal resources and presence of snares. It can also include the movements of key species, such as the gorillas and their use of the habitat. The RBM has produced effective field maps for the park staff and patrolling rangers, using topographic features and toponyms. The monitoring program was developed first in DR Congo, then Rwanda

and finally in both parks in Uganda, thus ensuring that throughout both forest blocks the data are being collected in the same way. At present, the data are being analyzed in each park, as well as at the headquarters of the protected area authorities. Currently IGCP is also developing a centralized, regional database, so that the data will be available for the entire ecosystem, thus allowing park staff to treat data as one shared whole. The ranger-based monitoring strengthens not only the management of each park, but also the whole ecosystem.

Regional-level development of skills and capacity

Training is a major component of any institutional strengthening program and has been a strong focus of IGCP. Again, in order to maximize the regional emphasis of the program, training has involved more than one park and more than one country whenever funds, timing and staff availability permitted it. In addition, IGCP has concentrated on training people who can serve as trainers in each country, and these trainers have also helped provide training in neighboring countries, to strengthen the regional links. Examples of regional, or joint, training have included training in community-based conservation, monitoring, gorilla tourism, protection/antipoaching, foreign languages and management.

Regional-level cooperation in collaborative activities

The protected area authorities have regularly conducted joint surveillance and antipoaching patrols, with the support of IGCP. In the joint patrols, the staffs of contiguous parks come together to patrol the border areas together, sharing information and logistics and working as a team. To date, the governments of the three countries have supported these activities, but in the future legal tools relevant to transborder collaboration will have to be developed to provide formal mechanisms for transborder collaboration to take place. These border areas are often very vulnerable and recently have involved the military of all three countries, thus bringing together not only park staff, but also military staff from across the borders.

Given the regional political context, only in specific circumstances are park guards able to carry weapons. In most cases, only the military may carry weapons. In addition, the park has been considered a high-risk area, as it is often used by rebel and militia groups to hide in the forest. The park guards, in order to be allowed to carry weapons, have undergone training provided by the military and conducted joint patrols in the park with the military for both park management and surveillance purposes. Members of the military have also received training from the park authorities, with conservation partners, on the ecological role of the forest; the health, behavior and social structure of gorillas; and park rules and regulations. This has served as a means to make sure that

military presence is not disruptive to the park, as well as to sensitize an important interest group. This close work with the military has affected the perceived neutrality of park staff, however. In DR Congo, it has placed the park staff in a very difficult position, where they are officially part of an institution with its headquarters in Kinshasa (in the western part of DR Congo), and where they have to work with political authorities in the east of the country. Their perceived neutrality by both sides of the conflict, therefore, is critical to their ability to continue working effectively.

The 1998 census of the gorillas at Bwindi Impenetrable National Park involved not only staff from the Uganda Wildlife Authority, but also staff of the ORTPN in Rwanda and the ICCN in DR Congo. Again, the objective was training of park staff in all three countries as well as strengthening the regional links among them.

Landscape-level ecosystem management

In 1997 IGCP was invited to present a paper at the IUCN International Conference on Transboundary Protected Areas as a Vehicle for International Cooperation (Cape Town, South Africa). Rather than present a paper on its own, IGCP requested that the three protected area authorities present a paper jointly, describing the situation in the Virunga area. IGCP then presented a paper following that of the park authorities examining the potential of establishing a transboundary protected area in the Virungas and Bwindi. The conference therefore not only stimulated the governments of Rwanda, DR Congo and Uganda to continue efforts at strengthening collaboration on the ground, but also showed the strength of collaboration already in effect.

The IUCN meeting was followed up in 1998 by an International Symposium on Parks for Peace, in Bormio, Italy. Again, IGCP and a representative from the region (a UWA staff member) were invited to participate. At this meeting, the participants generated material for the development of draft Guidelines for Transboundary Cooperation in Protected Areas, and a draft Code for Transboundary Protected Areas in Times of Peace and Armed Conflict. The IUCN World Commission on Protected Areas (WCPA), the Program on Protected Areas and the IUCN Commission on Environmental Law are currently finalizing these tools to be published as Transboundary Protected Areas for Peace and Cooperation under WCPA's Best Practice Protected Area Guidelines Series.

Together with other programs of the African Wildlife Foundation and WWF, the integrated and regional approach of IGCP in and around the Virungas and Bwindi is being strengthened through landscape-level site conservation planning and targeted support in key areas. IGCP's work in the Virunga Bwindi region has been integrated as an AWF "Virunga Heartland" and part of the WWF "Albertine Rift Ecoregion."

2. Economic mechanisms

Northwestern Rwanda, eastern DR Congo and southwestern Uganda have a large proportion of the population living below the poverty line, with insufficient land to meet their most basic needs (Waller 1996). Very few alternatives exist to subsistence agriculture, on steep slopes and plots that are too small to feed the average family. Numerous efforts have been made, and consultant hours spent, searching for alternatives for the local people in this region. Tourism, and more specifically, nature-tourism, offers one of the few viable options. Although a fragile industry, easily affected by political, economic and social changes, tourism nonetheless poses real economic potential for the region (see Annex A).

The risk of tourism, however, to the mountain gorillas and the habitat is also considerable. The potential of transmission of diseases from humans to gorillas, thus possibly infecting the entire population, poses one of the greatest threats to gorilla conservation (Homsy 1999). Transmission of diseases is not only a potential risk between tourists or researchers and gorillas, however. It is equally, if not more likely, between gorillas and poachers, local farmers, harvesters of natural resources, park staff, military and rebels. Efforts to sensitize some of these groups are under way by IGCP and partner organizations, including the Institute of Tropical Forest Conservation (ITFC).

IGCP has worked with the ORTPN, UWA and ICCN staff to establish common rules, applied in all three countries, to manage and control tourism. These rules focus on reducing the risks of disease transmission, overexploitation of the gorillas for tourism and reducing the stress to the gorillas. (They include, for example, minimum seven meters distance between the gorillas and the tourists; one hour with the gorillas only; maximum of six visitors per group; and maximum of one group per day). At the same time, having the same rules in each tourism site will strengthen collaboration and reduce competition among the three countries, which jointly have developed the harmonized tourism rules and regulations. Common approaches are also being applied with respect to interpretation and development of joint messages for conservation, handling procedures, and training for tourism staff.

To spread the economic benefits of tourism to the parishes around the parks in Uganda, IGCP and its partners have worked toward developing tourism-linked enterprises for the local communities. Similar enterprises are now being developed in Rwanda, again to ensure the flow of economic benefits to the communities and to strengthen the links between the local people and the parks in both countries.

Tourism was not established as a transboundary activity originally; as stated earlier, Rwanda and DR Congo established gorilla-based tourism before IGCP was formed. It was a national endeavor in the beginning, focusing on establishing sustainable funding mecha-

nisms for the park authorities and developing the economies of the countries. Building on that history, IGCP has focused on the opportunity to strengthen regional collaboration through harmonized tourism approaches, and to develop the effectiveness of nature-based tourism in and around the afro-montane forests as a funding mechanism and economic option for the three countries. Through sharing investment costs (training, development of interpretive materials and marketing), park authorities can increase their share of the tourism revenue, thus strengthening their ability to effectively manage the forest habitats and protected areas in their countries.

Regional tourism can be seen as sharing investment costs and harmonizing regulations (to avoid competition and strengthen collaboration), or as a much more formal program of regional collaboration and shared immigration and customs procedures. Regional tourism is understood in this sense as collaborating with the neighboring countries to reduce costs and the investments required to develop the resource, and facilitating regional travel for tourists who wish to spend time exploring the region as a whole. Each of the three countries has unique attractions to offer the visitor (active and inactive volcanoes, lakes, mountains, forests, birds and primate viewing), and if these countries work together to offer the range of different tourism opportunities, the numbers of tourists can go up—along with the number of days they spend in the area. In this way, regional tourism can potentially increase the number of tourists visiting the four parks and other parts of the region (Lanjouw and Mann 1999). Regional tourism is also potentially stronger, less vulnerable to political changes and economically more significant. Its future depends entirely, however, on effective transboundary collaboration. It will be necessary for the three countries to develop shared, transparent and participatory management systems—including ticketing, promotion, interpretation, regulations and policies—to share the revenues generated by regional tourism.

Through the utilization of similar approaches toward nature-based tourism, including harmonized rules and regulations, as well as involving local communities in tourism, the three countries are already working toward regional tourism. Collaboration in gorilla tourism forms the basis for true regional tourism, where the three countries manage a common tourism program and share the economic benefits. Once the political climate becomes more favorable, the official relaxation of border formalities will be much simpler, thus allowing tourists to travel to the numerous spectacular parks in the region. The mechanisms for the plan's implementation will already be in place.

In addition to tourism, other mechanisms for attracting long-term, or even sustainable, funding for conservation of the regional ecosystem are being explored. Transborder natural resource management contributes to development and creates links with many different sectors, including the private sector. As such it can be seen as a catalyst, drawing international investment and support, and generating goodwill in the donor community.

This potential for attracting regional funding and investments, or funds supporting regional activities, is being investigated for the Virunga-Bwindi region.

3. Social aspects

With respect to the work IGCP has been doing with local communities, the focus has been primarily on national-level activities. IGCP has worked with the protected area authorities to strengthen their links with the local populations bordering the parks. These activities have been focused on very specific needs and opportunities in each country, and even in each community. Some of the concepts, however, have relevance for other communities and other countries—in such cases, the opportunity for establishing regional links has been exploited.

In Uganda, IGCP has worked with the Uganda Wildlife Authority and other partners, such as CARE and the Mgahinga and Bwindi Impenetrable Forest Conservation Trust (MBIFCT) to develop a program for sharing tourism revenue with local communities, and to develop and strengthen community enterprises related to tourism (Ratter, Infield and Christ 1999). This approach, now institutionalized in Uganda, has served as an example to Rwanda and DR Congo, and Rwanda is currently exploring the potential for developing benefit-sharing mechanisms around protected areas. To date, the benefit-sharing mechanisms developed in the region do not appear to be attracting local people to the area, as the available land and resources are severely limited. A number of study tours were organized by IGCP, bringing Rwandan representatives from different ministries to Uganda, to observe the methods and achievements of the revenue-sharing program. IGCP also is exploring, together with the AWF Heartlands Program, the potential for developing and diversifying tourism enterprise with the local communities in both Rwanda and Uganda. These initiatives will ensure a larger spread of tourism benefits into society, and strengthen understanding and support for the values of protected areas.

In Uganda, IGCP has worked to develop a project addressing the conflict between humans and gorillas that leave the confines of the forest to forage in agricultural fields (Macfie 1999). This conflict can have devastating impact on people's agricultural output. Mechanisms to discourage gorillas from leaving the park are being explored. At present, special ranger groups—composed of people from the local population and rangers from the parks—patrol the boundary areas, herd gorillas back into the forest when the gorillas range in fields, train villagers in avoiding conflict with the gorillas and help them assess crop damage. Other aspects to consider will be exploring the potential for cultivation of non-palatable crops and developing physical barriers between the forest and the cultivated fields. This project is also being extended to DR Congo, where certain gorilla groups regu-

larly leave the forest, and to Rwanda, where the problem is less severe but still a potential issue.

In Rwanda, groups from the local communities have been established to support the ORTPN with tourism and surveillance in the Parc National des Volcans. As these groups, the *Para-ORTPN*, are not paid, IGCP and the park helped them form an agricultural association and obtain small plots of farm land (IGCP 1999). IGCP is providing them with support to manage these plots collaboratively and has provided material assistance to cultivate the land. This example has been the basis for a similar approach in DR Congo. Again, the rationale is the sharing of benefits from conservation and tourism with a wider group of people, and specifically the communities bordering the parks. In addition, IGCP and the ORTPN have recruited people from the neighboring communities in Rwanda to act as “extension workers,” or “Animateurs de la Conservation—ANICO” (IGCP 1999). The ANICO will work with the ORTPN in each administrative unit around the park and act as liaison between the ORTPN and the local population. Links in this initiative have been made with similar groups in DR Congo (ANIECO of the PEVi-WWF project) and in Uganda (advisory committees including local representatives, district representatives and park staff).

These examples illustrate how regional links that have been established through activities developed specifically at a *national level* have strengthened the potential for learning, collaboration and cooperation *across international borders*. This type of contact can help fortify the cultural ties among communities that have been restricted by country borders or alienated by political conflict. In so doing, these links can support social and political stability in the region. In the context of the Virungas, the years of war and conflict have deteriorated the cohesiveness of the community, and exacerbated tensions between local peoples and authorities as well as neighbors. The work to involve communities formally with protected area management, and share benefits with them, as well as to facilitate cross-border linkages, will contribute to improving these relations.

4. Legal/political aspects

The second phase of the process as defined by IGCP is the formalization of regional mechanisms for collaboration across international borders. A number of high-level political contacts have been made by IGCP to start this process of formalization. At present, only some Phase II activities have been possible, owing to the political tensions in the region. In 1998, during a brief phase of calm in the region, the Government of DR Congo approached the Government of Rwanda to formalize regional collaboration on tourism and natural resource management along the border. IGCP was requested to assist in the

facilitation of this process. The political situation changed, however, thus making it difficult to continue at this level. With its flexible approach and funding, IGCP has been able to continue working at the park and protected area authority level (Phase I), to ensure that regional collaboration continues at the field level. IGCP is also working with IUCN and UNESCO to continue the political discussions for the institutionalization of regional collaborative approaches.

As described earlier, a number of legal mechanisms, both international and regional, exist to facilitate regional cooperation. Most of them, however, are currently non-functional, or not particularly supportive of cooperation on environmental issues. Certain economic mechanisms, such as the COMESA (Common Market for Eastern and Southern Africa), will potentially support regional approaches such as regional tourism.

In 1995, IGCP was invited by the United Nations Environment Programme to form part of a team to develop a Strategic Action Plan for the Great Lakes region, to contribute to the area's rehabilitation following the war. Included were Rwanda, Burundi, northwestern Tanzania, southwestern Uganda and eastern DR Congo. IGCP was responsible for working with the respective governments to develop an Environmental Sector Profile and Strategic Action Plan for the Environment. The integrated study, including a number of other sectors (Health, Land-tenure, Agriculture), was presented at a donor conference to attract funding for emergency support and rehabilitation for the Great Lakes Region in January 1996. The Strategic Action Plan for the Environment provided a series of policy and legal recommendations for the resolution of a range of environmental problems, including those that resulted from the war, and others that developed independently.

5. Financial aspects

The cost of development of the framework for regional collaboration in the Virunga-Bwindi region has been the cost of funding the International Gorilla Conservation Programme, and a proportion of the salaries and operating costs of the three protected areas in Rwanda, DR Congo and Uganda. Each protected area authority has contributed in terms of manpower, technical time and resources to the realization of the regional objectives of the framework. The wardens and key people from the headquarters of each protected area authority have come to all the regional meetings, as well as the informal bipartite and tripartite meetings, to address regional issues. All have participated in training and joint activities. Although these meetings are organized and funded by IGCP, the protected area authorities are fully involved in the development of the agenda, implementation of planned activities and follow-up.

Regional collaboration and strengthening the capacity of the protected area authorities are seen as complementary objectives for IGCP, and are the central philosophy of the program. IGCP has therefore incorporated a regional element in all of its programming. The cost of IGCP has varied a great deal over the years, depending on the needs in the three countries as well as the ability to implement conservation activities. As the conflict in the region has evolved, its impacts on the parks, the declining ability of the park authorities to cope, and the repeated destruction of park infrastructure have all increased the needs and costs of conservation. IGCP has tried to respond to the greatest priorities, and evolved its structure in response to the needs on the ground. As a result, the budget of IGCP has grown from approximately US\$150,000 per year to over US\$800,000 per year. It is impossible to separate the purely regional activities from the national activities, owing to the overarching philosophy of developing and strengthening regional links among the four parks, and incorporating a regional element in most national activities. The regional program, however, involving only the specific regional activities and regional staff, has cost between US\$100,000 to US\$200,000 per year since 1991.

E. Implementation partners

The primary implementation partners of IGCP are the three protected area authorities in Rwanda, DR Congo and Uganda: the Office Rwandais de Tourisme et des Parcs Nationaux (ORTPN), the Institut Congolais pour la Conservation de la Nature (ICCN) and the Uganda Wildlife Authority (UWA). These organizations have the mandate and responsibility to protect and manage the natural resources within the protected area system in their countries. As such, they are ultimately responsible for effective conservation of those resources. IGCP's role is to support and assist the authorities in fulfilling their mandate effectively. Establishing mechanisms for transboundary natural resource management by the protected area authorities is seen as a means toward this end.

The protected area authorities have provided teams of their staff to work on the Ranger-Based Monitoring Program, to work on the Human-Gorilla Conflict Resolution (HUGO) program as rangers, and to work with the representatives of the local communities.

The three coalition partners of IGCP (AWF, FFI and WWF) have provided specific technical inputs into the program to complement the skills of the IGCP team. IGCP has also worked with conservation and development agencies on the ground, to rationalize inputs and enhance the impact of activities. These partners include the Wildlife Conservation Society, Mgahinga and Bwindi Impenetrable Forest Conservation Trust, Institute of Tropical Forest Conservation, Dian Fossey Gorilla Fund, Mountain Gorilla Veterinary

Centre, CARE-International, German Technical Agency for Development (GTZ), WWF, African Wildlife Foundation, United Nations High Commissioner for Refugees (UNHCR), United Nations World Food Program, Médecins Sans Frontières (Doctors Without Borders), European Union, United Nations Office for the Coordination of Humanitarian Affairs, United Nations International Children's Education Fund, and others.

Chapter IV. Analysis of Regional Collaboration

An analysis of the achievements of the regional program, and of the effectiveness of trans-boundary natural resource management collaboration in the Virunga-Bwindi region cannot be done without placing it into the political, social and institutional context of the region. The above chapters have described the historical, political and social background, and problems in the region. Insecurity and conflict, breakdown of the social and administrative infrastructure, and shortages of the basic necessities for survival have characterized the 10 years in which IGCP has been working in the region. All of these tend to focus people's attention on meeting their short-term needs and detract from longer-term objectives.

It is also possible, however, to turn this negative context into one that is supportive of collaboration. When primary needs are threatened, and "normal" livelihood strategies are no longer viable, people are obligated to build new allegiances, and have the opportunity to look outside the confines of their immediate environment or practice. In other words, the need for collaboration and building partnerships is strengthened, and new opportunities are often taken. Although this was neither a desired nor an anticipated strategy, all the stakeholders in the regional program took advantages of these new opportunities. Links were made with non-traditional partners, cross-border collaboration was strengthened to address the increasing problems and threats in each park, and a foundation for lasting collaboration was established. The conflict, and problems in the region, provided many of the incentives and tools for the regional framework.

A number of examples can illustrate the links created as a result of the difficult context. The increased movements of people from one country to another (refugees, rebels/militias, military, poachers) through the Virunga and Volcano National Parks led the park authorities to consult with each other and try to work together to control the movements. In Rwanda, with the insurgency threatening the security of the people living around the park, the local population started working more closely with the park authorities, and the military. The Para-ORTPN, described in Chapter III, is an example of local people working as Local Defence Forces, with both military and the ORTPN. The presence of 750,000 refugees in DR Congo, bordering the Virunga National Park, led IGCP to forge links with humanitarian and relief organizations, including the United Nations High Commissioner for Refugees, the UN World Food Programme and other agencies, to mitigate the environmental impacts of the refugees. These links led the ICCN in DR Congo to benefit from a number of projects for the rehabilitation of the park to repair damage

caused by the refugees. The work with the UNHCR also led the agency to invite IGCP to assist in the development of Environmental Guidelines during Refugee Operations (UNHCR 1996; 1998), and to provide training in environmental management for technical UNHCR staff across Africa (Kalpers and Lanjouw 1999).

The crisis in the Virunga-Bwindi region exacerbated the problems and threats to natural resource management in the region. It was not the cause of those problems or threats, however. Poaching for wildlife, pressure on the forest for agricultural land and deforestation as well as institutional weakness, corruption and mismanagement were problems well before the crisis in the region. IGCP's regional program was developed specifically to respond to the need to improve conservation and management of the protected areas during "normal" times—but since the program's evolution coincided with the onset of the political crisis in the Great Lakes Region, the objectives cannot be separated from this political context.

A. IGCP's transboundary approach

The International Gorilla Conservation Programme sees regional conservation as a process along a continuum. Although regional conservation is the central philosophy of IGCP's approach, it can be addressed from various points along the continuum. At one end is the management of three completely separate entities with no communication or consultation. One step along the continuum ensures that management approaches are not conflicting with each other. At the other end is fully effective collaborative management of one shared ecosystem. The habitat could, potentially, be effectively protected at any point along that continuum, as long as the management strategies of the three countries do not conflict with each other. Effective conservation of the ecosystem, however, frequently does require coordination of certain activities. Working together to deal with poachers crossing borders, controlling fires burning along a border zone, and monitoring gorillas moving across borders are all examples. Strengthened coordination of activities moves one further along the continuum and enables collaboration. Collaboration on activities strengthens their impact and potentially rationalizes costs and inputs. The further the three countries move along the continuum toward collaborative management, the greater the likelihood of effective conservation.

This does not imply that a formally gazetted Transboundary Protected Area is always the ideal goal. Each case involving transboundary natural resources will have a different context, as well as a realistically achievable point on the continuum defined as the goal. The fact that each of the three countries is working with a common partner with a regional approach to conservation already implies a certain harmonization, and indirect coordination of activities. As the obstacles to coordination and collaboration are removed, more direct regional activities can be implemented.

The constraints, in the context of the Great Lakes Region, to full collaborative management, have been enormous. Yet the opportunities and similarities among the three countries have enabled much to be achieved in terms of transboundary natural resource management—which can include the entire range of activities that can be found along the continuum of non-opposing harmonization, cooperation, collaboration, and finally, common management structures. This style of management is not limited to collaborative management of the ecosystem as one shared unit. The creation of a transfrontier protected area in the Virunga-Bwindi region can be seen as a long-term goal, for a future when the politics of the region will permit it. Yet effective management and conservation is not contingent on the creation of such a park.

It is unrealistic to consider that a transfrontier park needs to be formally designated before regional collaboration can take place. Collaboration can be at the park level, among rangers, wardens, trainers and others. Collaboration can also be at the level of the park authorities at headquarters. At higher, political levels, collaborative management will require a large set of preconditions, including political stability and strong diplomatic and economic ties among the three countries. These conditions are not currently in effect. Yet field- and management-level collaboration among the four parks is entirely possible, and has been established in many cases.

Transboundary natural resource management is therefore viewed as a range of tools available to sustainably manage natural resources along border areas. The choice of tools, and their value, will depend on a large range of factors, and IGCP and the three protected area authorities have had to be opportunistic and flexible, using the appropriate tools when and as they became available.

One of the main effects resulting from the regional approach has been the strengthening of communication channels, and awareness of the similarities and differences across the border, and this has resulted in a greater openness among the three protected area authorities, both in the field (ranger to warden level) and at headquarters. This has resulted in improved conservation and cooperation.

B. Summary of opportunities and constraints

1. Opportunities

Ecological value

The Virunga-Bwindi region includes two forest blocks of diverse, rich and ecologically important afro-montane and medium altitude forest. The value of these forests at local,

national and international levels was discussed above in the Introduction. One of the two forest blocks involves three contiguous parks. The idea of managing the three parks as one unit, in a holistic manner, can be argued. The reasons for including the second forest block are evident for the purposes of gorilla and habitat conservation: it is close to the first one, and it contains gorillas and is managed by the same protected area authority.

The presence of the rare—and endangered—mountain gorilla, a species that attracts international as well as national attention and concern, provides a strong argument for the collaborative management of the forest blocks. Threats from any one country will impact the entire population, and thus affect all three countries. Only through collaboration can the population of the Virunga gorillas be effectively managed and protected. And given the strong economic value of the gorillas, the incentive to managing them effectively is considerable.

Both of these points provide not only a strong rationale for regional collaboration, but also an important means of attracting funding. The value of afro-montane forests, tropical forests and biodiversity, and water-catchment management, as well as the importance of regional collaboration has been understood by many donors and has attracted bilateral and multilateral funding to the region. The appeal of the mountain gorilla also attracts attention and funds. These outside sources of funding proved invaluable for conservation and protected area management activities in the past—during periods when funding support from the national governments was no longer possible. As mentioned previously, the ICCN staff in eastern DR Congo has not been paid a salary by the park headquarters in Kinshasa in more than five years. Without outside funding support, the parks would not have been protected.

Political change

In the three countries, political support for sustainable environmental management, as well as conservation of the afro-montane habitat, has strengthened over the years. The consciousness that resources are limited, and that human livelihoods are interlinked with the environment has increased. This is attributable, in part, to examples of unsustainable use and the impact it has had on soil, water and farmers' ability to grow food crops. In addition, the realization that natural resources can be of economic value (e.g., in tourism) has also strengthened the national governments' support for conservation. This consciousness has greatly facilitated the work of the protected area authorities, and conservation organizations struggling to protect important natural areas and wildlife.

Institutional partners as assets

IGCP has three well-established partners in the region with whom to work. Although all three protected area management authorities—the ORTPN, the ICCN and UWA (previ-

ously Uganda National Parks, or UNP)—have institutional weaknesses, there is a core group of motivated and experienced staff members on the ground, and a long history of protected area management in these forested habitats. The institutions, staff, policies and procedures for effective natural resource management were in place before IGCP's involvement. The protected area authorities in the three countries have been the primary reason that the parks, and the mountain gorillas, still exist today. In addition, the fact that there are three comparable field management structures on the ground is already a strength in fostering transborder collaboration among the three countries. Each of the three organizations has a relatively high level of functional autonomy, which can lead to the adoption of common initiatives. In the first phase, this included the rapprochement that brought together the managers of the three national parks, and the implementation of common activities.

A number of development and conservation organizations had been working in the region before the problems started in 1990—including WWF, African Wildlife Foundation, Fauna and Flora International, Wildlife Conservation Society, CARE, and Dian Fossey Gorilla Fund. Many other organizations, including humanitarian and relief organizations, arrived during the crisis in the Great Lakes Region. These included the United Nations High Commissioner for Refugees (UNHCR), United Nations International Children's Emergency Fund (UNICEF), Médecins sans Frontières, World Food Programme (WFP), and others. Many of the humanitarian and relief organizations had little or no mandate to invest in environmental programs, or to address longer-term objectives (Kalpers and Lanjouw 1999). Yet a large number of them provided short-term support to the conservation programs during the crisis, spurred to action by the demonstrable links between environmental issues and human welfare and survival.

The crisis exacerbated the already existing threats to the parks, and conservation of fromontane forests and gorillas. It also posed severe shortages of food, water, firewood, housing, health care and other basic necessities to the local populations. This fact forced all parties to challenge their assumptions and search for solutions to the problems by looking beyond their usual horizons. The dependence of the human population on their environment, and the need for a healthy, sustainable source of natural resources was challenged, and clearly demonstrated. This not only helped improve conservation, but also created some of the all too rare links connecting the environmental, humanitarian, relief and development sectors.

As a regional nongovernmental partner to the three protected area authorities, the International Gorilla Conservation Programme (itself a collaborative effort by AWF, WWF and FFI) has been key in developing the regional collaborative framework for the Virunga-Bwindi region. Because IGCP was a neutral partner working closely with the three governments and park authorities, it was able to demonstrate the need to forge linkages and

cooperate across dividing lines. It also provided technical input, funds and tools for collaboration, thus allowing the park authorities to move forward along the continuum of transboundary collaboration.

Economic opportunities

The fact that nature-based tourism has been a major component of the economies of the three countries for many years has provided strong arguments for conservation. Tourism has been shown to contribute to local and national economic development, and can be demonstrated to have the potential to play a significant role in achieving development objectives at many levels. Although many challenges exist to ensure that tourism is effectively used as a tool to achieve conservation and development objectives, and that local people as well as national and international businesses, benefit from the tourism industry the potential is evident. The region can further realize the importance of the mountain gorilla as a resource, and realize that it could become a flagship in the drive to protect the afro-montane forest blocks. It is necessary to avoid placing all the emphasis on tourism as the economic value of the forest, however. The importance of the forest in protecting people's agricultural livelihoods, and thus contributing to the national economy, is also a point that must be consistently made.

Social connections

The people in the Virunga-Bwindi region share a common history and many ethnic groupings, which are not reflected by the international boundaries. Having a common language (Kinyarwanda and Rukiga) and culture is typical across the borders between southwestern Uganda, eastern DR Congo and northwestern Rwanda. This shared history and social background can greatly facilitate regional linkages and collaboration among the three countries.

Funding

As guided by IGCP's regional approach, funding for the two forest blocks through IGCP was channeled to areas where the financial support was needed most, or where the opportunity to have impact was deemed the greatest. Certain areas of the region received more financial support from donors (especially bilateral agencies) than others, owing to political objectives and agreements, but IGCP was able to ensure that areas receiving less support from other sources were still assisted through the provision of non-restricted funds in IGCP.

During the refugee crisis in DR Congo, and immediately after the war in Rwanda, the attention and support delivered by humanitarian and relief agencies also brought considerable funds into the region. Although these funds were not easily available to address

longer-term objectives (see the Constraints section below), the connectedness of the crisis, human livelihoods and the environment was clearly demonstrated in many examples. Some funds and material assistance (food through the World Food Programme’s “Food for Word” program) did reach the park authorities, and contributed to conservation objectives.

2. Constraints

Political and security-related constraints

The Great Lakes Region has been the scene of a number of conflicts during the past 10 years. This has affected security, and the ability of the park authorities to effectively manage their parks. The forests themselves have been the arena for much of the fighting during that period. The breakdown of social, economic, and political/administrative structures in the region has severely impeded the normal functioning of the protected area authorities.

All three countries are at varying stages of emergence from crisis. Each government has had to concentrate its resources on military objectives, social rehabilitation after war and resettlement of displaced populations. During these phases of reconstruction, the basic framework of functioning government had to be rebuilt, and in the face of immediate, short-term needs, environmental issues—longer-term objectives of conservation and sustainable management of natural resources—received a very low priority. In the 1966 Covenant on Political and Civil Rights (UNTS 14668), signed by Rwanda, DR Congo and Uganda, Article 6 declares that “every human being has the right to life.” This has been interpreted by some to reflect a right to an environment that is adequate for life to continue. However, other priorities and emphases tend to take precedence. Even during peacetime, the environment has received relatively little attention compared to other sectors of governance. Only when it becomes fully integrated with health, security and economic development, will the environment be brought into the mainstream of government and society concerns.

This is counterbalanced to a limited extent by a point that is related specifically to the mountain gorillas. The mountain gorillas, as an important economic resource through tourism, have the power to increase the priority given to conservation, and it is clear that without this incentive, efforts to maintain the integrity of the parks would have been far less effective. The crisis has brought a temporary halt to tourism in all three countries. In Uganda the two parks were closed in March 1999. In Rwanda, the parks remained closed for most of the period from 1996 to 1999. In DR Congo, the park has been closed since 1998 and will not be able to open soon, owing to continuing security problems. This has

reduced the income to the parks from tourism, thus affecting their ability to function as well as the strength of the economic argument for continued investment and protection. Yet because the governments, and all the belligerents in the conflict, are aware of the potential economic value and importance of the park, efforts to protect these forests have continued.

Because of the political crisis in DR Congo, the ICCN is effectively split between rebel-held eastern DR Congo and government-controlled Kinshasa. Under normal circumstances, the Kinshasa-based headquarters of the ICCN pay the salaries and operating costs of the field offices in the east. The current political constraints, however, make this impossible. As a consequence, the park staff has not regularly received an official salary from Kinshasa in more than five years, although they have received irregular payments from the local government.

Institutional constraints

Although the protected area authorities working in the region were established partners with experience and a presence on the ground, the institutions already were weak in all three countries before the crisis. The staff of the organizations found themselves ill-prepared and unable to deal with the increase in problems and threats associated with the breakdown of security in the region. As weak organizations they were not equipped to bring together partners and encourage coordinated environmental management. As a result, efforts have in the past been disparate and not focused on the overall needs of the protected areas and regional ecosystems.

The four parks contained in the forests constituting the Virunga-Bwindi region were in the past managed as separate entities, with little or no coordination among them. The tensions among the three countries emphasized these differences. Only recent efforts, initiated by external (international) organizations, led to the building of regional links, and mechanisms for collaboration.

Different administration systems within the three countries, especially between the Francophone countries (Rwanda and DR Congo) and the Anglophone one (Uganda), have proven a complication in harmonizing management approaches among them. The language issue is also a constraint, although because the local language is often shared, or similar across the borders, this is less of a constraint than it could be. Translation is often needed, and documentation always has to be produced in both French and English.

Funding

Donor agencies have been reluctant to invest in former Zaïre (now the Democratic Republic of Congo) for many years, owing to their lack of confidence in the government,

and their concerns over issues such as rampant corruption and slow (or nonexistent) democratization. Bilateral and multilateral funding support for environmental work in the DR Congo have therefore been very low. After the war from 1990 to 1994, and then during the refugee crisis in the region, and insurgency in Rwanda (1994–98), donor support was concentrated primarily on the relief/emergency sectors. Conservation, and natural resource management were seen as long-term goals, fitting in with a development agenda, rather than the emergency or rehabilitation agenda. Again, support for environmental issues was generally short-term, linked directly to the crisis and the quick alleviation of needs, or to rehabilitation of immediate environmental impacts of the crisis.

Given the crisis in the region, this meant that there was little solid funding support for regional programming, with the notable exception of the United States Agency for International Development (USAID), which provided support to protected areas in southwestern Uganda (through IGCP) with a significant regional component from 1993 to 2000.

Even in times of stability, however, regional funding, or funding for regional initiatives, is not always easily obtained. Most donors have national programs, despite the stated desire to increase regionalization and “ecosystem-level” support. Differences in the status of political relations with governments in the region also affect donors’ ability to provide regional funding support. In many instances, non-political donors, such as individuals and foundations, provide funds for regional-level activities more easily than government donors. In addition, individuals and foundations are often less tied to political constraints on funding than bilateral and multilateral agencies.

C. Lessons learned and key findings

Looking at the transboundary work that was implemented in the Virunga-Bwindi region, and placing it in the political and social context of the region, a number of lessons can be identified. Most of the transboundary natural resource management lessons cannot be examined in isolation from the context of conflict of the region, however. A great deal of overlap therefore exists between lessons learned on the potential and importance of focusing on conservation during conflict (Lanjouw 2000; Cairns 1997), and the potential and experience in transboundary natural resource management (Kalpers and Lanjouw 1997; Muruthi, Soorae, Moss, Stanley-Price, and Lanjouw 2000).

Not only do many of the lessons overlap, but the experiences in conflict situations also has led to specific findings on the potential role of transboundary natural resource management. The role of collaboration in the building of trust, understanding between people, and of reconciliation and cooperation among stakeholders from all sides of the

borders can be used as an example. Transboundary natural resource management can potentially contribute to the development of peace.

1. The transboundary natural resource management continuum

As demonstrated in the previous chapters, there are many arguments for working together to manage natural resources sustainably. This does not necessarily imply that the resources have to be managed as one shared unit, however. In many instances, this is not practical, or possible. Effective conservation involves the abatement of threats to natural resources, ecosystems or species. When those threats come from more than one side of a border, it is necessary to focus on threat abatement at a regional level. Given the sovereignty of nations, this will require coordination and, where possible, collaboration on conservation activities. The stronger the ability and willingness to coordinate and collaborate, the more effective the conservation will be.

At one end of the continuum, efforts can be made to make conservation approaches in each country harmonious, or non-conflicting. This can have an enormous impact on the efficacy of the management activities. As opportunities arise for strengthened regional-level management, coordination of activities and collaboration on certain activities that can be implemented jointly become possible. The more people, levels, institutions and sectors are involved, the more difficult regional collaboration becomes. For this reason it is not always possible, or even desirable, to establish full regional management of an area as one shared unit. Such political level involvement can delay or even impede effective collaboration on the ground. Effective transboundary natural resource management therefore can be argued as the combination of strategies along the continuum that has the optimum net gain in positive conservation outcomes, relative to costs stakeholders are willing to pay. It needs to be flexible over time and evolve based on needs and opportunities. Development of human and institutional capacity is a critical emphasis. Collaboration across borders only happens among people, either as individuals or as members of institutions. To collaborate effectively, a basic level of trust and understanding is required. In addition, the institutions need to be strong enough to be able to coordinate their activities with others. To be able to accomplish this, it is critical to build organizational capacity and to develop a clear understanding of the issues involved. Once mechanisms for effective coordination have been developed, and institutionalized, collaboration becomes routine.

The crisis in the region has also focused the park staff's attention on the need to decrease their dependence on central government and to strengthen their ability to be proactive and independent. The need to anticipate problems, prepare for them and mitigate negative impacts has been underscored repeatedly over the past 10 years. The need to

react rapidly and rehabilitate areas impacted by the crisis has also been demonstrated. Looking at the area under protection as one whole, rather than separate entities, only strengthens the effectiveness of this approach.

In situations of conflict, it is also critical to invest in human capacity—as infrastructure and equipment are easily lost or destroyed. Programs focusing on investment in organizational capacity and people have proven the most successful during conflict; these programs build self-reliance as well as helping to link the emergency phase with the development phase and subsequent steps in the future.

2. Broad-based approach, working from the bottom upwards

There is no lack of examples showing the inefficacy of “paper parks.” Formally designated parks or policies, with no basis on the ground, have little impact on conservation and natural resource management. Working out the complex mechanisms, institutional and personal, to make collaboration work has required many years of effort on the ground. Once established, and implemented by all parties, formalization of these mechanisms and relationships is often a much simpler process. IGCP, aware that it is the people in the field who are usually the most motivated to find realistic and practical solutions, has chosen to work on such a “bottom-up” approach. In addition, it is for the purpose of serving these people and their objectives that collaborative mechanisms are established in the first place. Through involving the many stakeholders on the ground, and ensuring that their needs are being met, transboundary processes can become sustainable. IGCP has emphasized working with the protected area authorities on the ground—the wardens, rangers and guards, who are responsible for the management of the parks. The other stakeholders on the ground, including representatives of the communities, local authorities, and conservation and development partners, have also been involved in this process. By bringing in headquarters staff of the protected area authorities, and then representatives of the parent ministries, the regional program is slowly being brought to the attention and recognition of higher government levels. The result has been overriding support and interest in the objectives and achievements of the program, despite the fact that at present, formalization of the process is not yet possible.

The implementation of practical mechanisms on the ground, and operationalizing the concept of transboundary collaboration have illustrated the benefits of such an approach, and have had a catalytic function, stimulating new ideas and mechanisms. Organized into an integrated regional program, these measures have improved the results and conservation impact in each of the three countries. There comes a point, however, when further progress along the regional natural resource management continuum becomes impossible

without formalization of regional mechanisms, and adoption of political agreements to collaborate becomes necessary.

3. Transboundary collaboration as a process rather than a goal

The goal of having a transborder protected area for peace and cooperation provides a strong vision for collaborative work. The formal designation of a transboundary park is not what will make collaboration take place—it is the process of working together, of communicating and coordinating activities, developing joint plans and implementing joint or coordinated activities. The objectives attained through this process are building a framework for collaboration, involving people from all three countries in this process and making sure that objectives are perceived as shared.

4. Flexibility in programming and long-term vision

Owing to the rapidly evolving situation in the region, and the tensions at different times between different countries, IGCP has developed a very flexible approach to its activities. This has proven to be a valuable strength. Since program activities are often affected by political instability, working regionally makes it possible to shift focus—in response to the changing situation and to the needs as they arise—to areas where there is a greater chance of realizing objectives and implementing activities. This necessitates, however, a strong vision and strategy for the program, developed together with the beneficiaries, to maintain the focus on the objectives and expected outputs. By working flexibly within a clear framework and strategy, IGCP has been able to capitalize on a number of strengths and opportunities in the region, and evolve as the needs changed. The long-term vision also has brought the protected area authorities of the three countries together for a common purpose, thus strengthening the regional partnership.

5. Flexibility in the funding base

As the situation evolved in the Great Lakes Region, the funding opportunities also changed. The regional program is funded primarily through IGCP and its fundraising efforts. The program has broad-based funding support, based on funds raised by the coalition members, and funds raised from bilateral and multilateral donors as well as foundations and private donations. The contributions coming from the three coalition

members in the program (AWF, FFI and WWF) provide the flexible funding for the program. Funding for specific program activities is solicited from a variety of donors and is usually restricted to those activities. During times of conflict, when bilateral and multilateral funding is restricted because of changing political relations between governments, the independent funding of IGCP has enabled it to continue working on the program. In addition, when funds are only available for national-level activities, the unrestricted funds of IGCP create regional links, bringing national activities together into a regional program.

6. Building trust and teamwork

All three protected area authorities have the common objective of effectively managing a shared resource (the forest blocks, including the mountain gorillas). This objective is most effectively realized by working together. Regular contact, joint planning and sharing of experiences and knowledge (linked to park management as well as to the conflict situation in which people are living) have strengthened the sense of belonging to a team. This was articulated at one of IGCP's regional meetings, and this team spirit was considered a cornerstone of the regional collaboration.

7. Strategic partnerships

The lack of strategic partnerships has been identified in many sectors as the critical gap in effective realization of program goals and objectives. This has often been cited in the development, relief and humanitarian sectors during an emergency as the “circus” that descends on regions in conflict or crisis (Ingram 1994). The development of strategic partnerships is an approach that is applicable to all aspects of an organization's—or program's—operations. It goes beyond the traditional partnership between the donor and recipient, the technical “advisor” and the organization benefiting from the support.

NGOs working in humanitarian and relief, development and conservation sectors have an array of legitimate and complementary activities. What is frequently missing, however, is coordination of their different programs, and forming strategic alliances to work more effectively together (Bennet and Kayetisi-Blewitt 1996). Competition for programmatic niche, geographical “turf,” funds and “profile” all pose barriers to effective collaboration and coordination. Although these aspects are legitimate, and important for the survival of the organizations, the perceived threats coordination poses are not necessarily legitimate.

As mentioned earlier, IGCP is in itself an interesting and unique partnership of three conservation organizations. It has also worked at developing a partnership among the three protected area authorities in Rwanda, DR Congo and Uganda to create a regional framework for collaborative management of the shared ecosystem.

IGCP has also worked very closely with other conservation and development organizations on the ground. These partners have helped IGCP implement its activities, and IGCP staff have contributed to the implementation of their activities.

This collaboration has been based on informal partnerships established on the ground. Coordination and collaboration is much less evident in the formal institutional arrangements between organizations working in the same region, however. Formalized alliances between park authorities and their partner organizations based on clear Memoranda of Understanding should be developed. These would identify the different “niches” of each partner, as well as their roles and mandates, and clearly identify the relationships among them in terms of program affiliation, fundraising activities and profile. To achieve this differentiation of roles and framework for partnerships, on-the-ground collaborative planning, initiated by the park authorities and including all stakeholders, partners and beneficiaries should be done, looking at the range of needs, expertise and support available, and identifying strategies and programs together. Such collaborative planning has already been done in some areas, including conservation and development organizations, the private sector, government organizations and local people. For the Virunga region, mechanisms for joint threats analysis and planning among all active partners on the ground are also being developed, building on the framework established by IGCP.

Continued coordination among different organizations working toward conservation objectives—in situations of conflict or not—can only strengthen the impact of the programs. The coordination has to be focused on impact, however, and not purely coordinate for the sake of coordination. In any given partnership scenario, a lot of time and resources are spent on meetings and workshops—yielding great recommendations that never get implemented. The objective of coordination must be practical, looking at what the needs are on the ground, and what can be done together to meet those needs. It is especially important during crisis situations to ensure strong coordination and collaboration on specific activities, so that the overall approach is holistic and that it responds to the large range of needs experienced both by the natural areas, as well as the people who are dependent on and affected by the natural areas. Demonstrating the holistic approach and different niches occupied by different partners will also help avoid competition for resources and funding.

With a decline in international development funding worldwide and in public donations to northern NGOs, and a rise in funds going to emergency and humanitarian assistance (Bennet and Kayetisi-Blewitt 1996), it is critical for conservation organizations to work together,

coordinate their efforts and avoid territoriality and competition for funds. The politics surrounding charismatic species as the focus of organizations' attention has frequently worked to the detriment of the species, and the conservation objectives concerned. Competition over resources and credit, lack of collaboration for fear of loss of identity, and lack of transparency and of shared expertise and resources, have characterized many conservation and development efforts. In addition, the politicizing of conservation issues has an enormously negative impact on the credibility of conservation organizations and the importance of their message. An example of this is how the allegation that certain military groups poached gorillas and elephants in the Kahuzi-Biega National Park in DR Congo in 2000 became political fodder. As organizations we must that we work together and avoid manipulating information to further personal or institutional objectives. Our focus must remain on the importance of conservation objectives for wildlife, for culture, and for people over the long term.

8. Regional agreements can support conservation during conflict

Throughout Africa, war and other political conflicts are a serious threat to continuity in conservation programming. Such conflicts can impede conservation activities (owing to security concerns, forests turning into war zones, loss of park staff, etc.) and also draw attention away from longer-term conservation and development objectives to short-term objectives related to the political and security situation. This shift will frequently be accompanied by an increase in threats to the conservation targets. Not only will this affect the natural resources within a country, but it can also have an impact on resources shared across a region. Watercourses, mountain ranges, wetlands and forests often span international boundaries. Degradation or destruction of resources in one area could have a negative impact on the rest of the region. In addition, a lack of access to natural resources in one area can often be the result of conflict in another area. For this reason, regional resource management agreements are increasingly becoming recognized as important in ensuring environmental protection. Mechanisms enabling cooperative management of a shared resource—be it water, forest, or something else—provide a foundation for collaboration and help protect resources from destructive utilization. Collaboration in such regional agreements potentially plays a significant role in preventing, managing and/or resolving conflict, by providing both the mechanisms and political will for cooperation (UNEP 1997).

9. Collaboration as a means to build peace

Organizations working toward building peace, conflict resolution and reconciliation after conflict have recognized that one of the tools used to meet these goals is the identification

of common ground and shared objectives between the warring parties, bringing the interests of the different groups together (Bennet and Kayetisi-Blewitt 1996). In countries struggling with poverty and experiencing a lack of sustainable livelihood options for people, identifying economic opportunities and having to work together to realize those opportunities can be an important foundation for the building of peace.

In the Virunga region, the habitat of the mountain gorilla is shared by three countries, where there have been repeated conflicts over the past 10 years. Effective conservation of this habitat, and specifically the mountain gorilla, requires the three countries to work together. This is the justification for the regional approach that IGCP has taken. IGCP has also assisted each of the three countries in approaching conservation not purely from the perspective of preserving biodiversity, but also from an economic and development perspective. The mountain gorilla is the focus of a carefully managed tourism industry, which brings in much-needed revenue and employment opportunities to each of the three countries. Through the regional approach of IGCP, and the framework for collaboration developed by IGCP and the three protected area authorities, the Governments and authorities of each of the three countries now recognize the need to work together to ensure that the mountain gorillas are protected in the wild. And by working together toward a common objective—which goes beyond purely economic development but which certainly recognizes the importance of it—conservation is building one of the cornerstones for peace in the region. Peace and reconciliation are not goals; they are processes (ECCP, IFOR, and CISWF 1999). The potential for conservation to contribute to this process has rarely been explored—yet in countries where environmental protection is so closely linked with human livelihoods and poverty alleviation, it is critical that these efforts be recognized and the potential developed.

Chapter V. Long-Term Prospects for the Transboundary Area

A. The challenge

At an IUCN conference in Cape Town, South Africa, representatives of the three protected areas presented the Virunga-Bwindi region as demonstrating great potential for the creation of a Transboundary Protected Area for Peace and Cooperation in 1997 (Werikhe, Mushenzi, and Bizimana 1998; Kalpers and Lanjouw 1998). This vision has been accepted by the governments of the three countries concerned. Currently, the political relations among them, however, are not propitious for such a formalized designation. The political relations have not stopped progress toward this vision, however. And as stated earlier, the contribution that collaboration is making toward building peace, and opening both understanding and communication among parties to the conflict is significant. The future of the Virunga-Bwindi region does not depend on formalized designation of a “Peace Park.” It does depend, however, on collaboration, coordination of management and economic activities, and good communication. These “three C’s” are the essential basis for transboundary natural resource management.

The processes built in the past 10 years among the three protected area authorities, despite an equal number of years of conflict with an extremely high human death toll in the region, are enduring and only strengthening with time. Initiatives arising from the park staff—fostered but not stimulated by IGCP—are currently being developed and implemented. The regional framework has taken a life of its own and is an accepted part of the approach of the protected area authorities.

Despite this, it is clear that any hope for continued collaboration will depend on funding and support from the outside. The governments of Rwanda, DR Congo and Uganda cannot fund these initiatives with the many other priorities they have, including national rehabilitation and military activities. Tourism, a potential sustainable funding source for all protected area management, including regional linkages, has been seriously affected by the crisis in the region and is currently pulling in only a fraction of its potential revenue. In addition, it is unrealistic and dangerous to expect tourism to be the sole funding source for all protected area management activities.

Further development of the regional initiatives already in place will require a resolution to the political tensions in the region. The resumption of effective diplomatic ties among the governments of DR Congo and Rwanda and Uganda will be a necessary prerequisite for the formalization of the mechanisms and approaches currently established in the field. The economic and political interests in the Great Lakes Region are not currently supportive of a peaceful resolution of the conflict and despite numerous efforts to broker peace, the fighting is continuing. It is possible that even a relative relaxation of hostilities would enable certain formalized agreements for collaboration in natural resource management to take place. These would then serve as an example and potentially stimulate more advances in this domain. The economic and ecological benefits can be realized in a relatively short time frame, thus providing strong incentives for further collaboration.

The reactivation of regional economic agreements and mechanisms once political relations improve must strongly support the regional approaches described above.

B. Steps ahead

The development of a regional management plan, by the three countries, IGCP and other stakeholders, will formalize the framework that currently guides the regional process. The transboundary protected area management plan will outline the conservation, social, legal and economic components of the management of the ecosystem and integrate the four separate national-level management plans. Important areas that need to be developed for the management plan are sustainable sources of funding for the region, political agreements for collaboration and partnerships for the implementation of transboundary management.

1. Sustainable funding

Subsequent steps will have to address the long-term funding needs of the conservation sector, and of the region. Adequate financing may well be the most difficult aspect in the development and effective functioning of a transborder protected area (Dennis and Spergel 1993). It is possible, however, to envisage that the creation of such a park would attract the attention of the international community and would thus increase funding possibilities. Three principal funding mechanisms—which are not necessarily mutually exclusive—can be envisaged (Kalpers and Lanjouw 1997):

1. “Classical” funding, where bilateral or multilateral donors, foundations and NGOs make funds available for the development of a regional program: Various examples of

regional programs exist in Central Africa: ECOFAC (Ecosystèmes Forestiers de l'Afrique Centrale), financed by the European Union, or CARPE (Central African Regional Program for the Environment), financed by USAID. The advantage of such funding is that relatively large sums can become available as soon as they are attributed to a program. The disadvantage is that implementing them generally takes a long time because the administration of management procedures and the disbursement of funds tend to be complicated and slow. In addition, such support falls under the approach of a "project," limited in time and submitted to political considerations linked to both the donor and the beneficiary nation.

2. Funding through a "Trust Fund": financing conservation through a trust fund has been tried in a number of African countries (Inamdar and de Merode 1999), most notably in the Bwindi Impenetrable National Park and the Mgahinga Gorilla National Park (through the Bwindi and Mgahinga Forests Conservation Trust Fund). The advantage of such a formula is that it provides long-term financing, at least in theory. It would be possible to envisage the creation of a single regional trust that would provide a guaranteed source of funding even in times of instability, as long as the funds were invested outside of the zone considered. Such a trust would be more reliable than a national trust fund, as it would be less open to external influences (Dennis and Spergel 1993), but it would be more likely to be confronted with technical problems linked to the financial modalities of its implementation. One could also envisage the establishment of three individual national trusts with a common management and coordination system for the three countries (coinciding with the transboundary protected area structures). The inconvenience of trust funds is the generally lengthy process of establishment, as well as the difficulty of the management and administration of one or more trusts. In order for such a funding mechanism to be immediately effective, it is necessary that a sufficient amount of capital be invested so that the interest generated can finance activities.
3. Establishment of an international or local nongovernmental organization that can serve as a basis for the management of the transboundary protected area and for centralizing sources of funding: The advantage of such a system is that it is very flexible and can react rapidly when necessary. The disadvantage is that it is difficult to plan activities for more than a few years at a time and there is no guarantee for long-term funding.

2. Political-level discussions on regional collaboration

As stated in Chapter IV, in 1998 efforts were made to bring the concept of regional management of the Virunga-Bwindi ecosystems to the table in discussions between the Governments of DR Congo and Rwanda. Such opportunities have existed between Rwanda and

Uganda as well. These were short-lived, however, owing to the political tensions between the nations. It is imperative, in order for the informal mechanisms and agreements among the three protected area authorities to become institutionalized, for the discussions to be brought to a higher, political level. For example, certain achievements of the program were lost at one point, owing to changes in staff within the protected area authorities, and they had to be re-initiated to continue. The formalization and institutionalization of each achievement is therefore necessary for the effects of the regional program to be sustainable. This phase, however, is extremely difficult because of the context within which IGCP and the three parks are operating. Although the program can be seen to be contributing to the building of peace, it itself is also contingent upon the achievement of peace in the region.

This can be seen as one of the main limitations to the effectiveness of IGCP. Despite the fact that much has been achieved in the 10 years that IGCP has worked in the region with the park authorities, it is also clear that this can all be lost if political changes do not support regional collaboration. Although formalization of the regional framework will not guarantee its survival over time, it will protect it from relatively small changes in policy, staff or funding. This formalization and institutionalization of the regional collaborative mechanisms will form the focus of IGCP in the coming years, as a complement to the continued emphasis on the development and implementation of field-level mechanisms.

3. Partnerships

The achievements made to date in the Virunga-Bwindi region can be attributed to a large range of factors, which were described in some detail above, in the previous chapters. Shared history, common cultural background, traditional livelihoods and dependence on natural resources are some of the contextual factors. The presence of a conservation partner—the International Gorilla Conservation Programme—working with the park authorities in the three countries on a regional program has allowed this enabling context to bear fruit. It is extremely difficult for the national-level protected area management authorities to cross borders and initiate contacts and develop regional collaboration mechanisms. They do not have this mandate, and are often limited by the national regulations with which they have to comply. A nongovernmental organization, working on a regional mandate and having activities in all the countries concerned, however, can initiate these links, and provide a framework within which all the stakeholders can work. A “neutral” facilitator is generally identified to facilitate a process toward regional collaboration on natural resource management, or the creation of a Park for Peace (IUCN 1990). In the case of the Virunga-Bwindi region, this facilitator has been IGCP. IGCP has worked with all three protected area authorities at a national level, as well as bringing all the conservation efforts together into a regional framework for collaboration.

Other areas in the region can be identified with similar potential, as well as need, for such a regional approach. Owing to the absence of such a facilitator, however, this potential has never been developed, and the parks remain completely separate entities, with little or no communication, no effective coordination and no addressing of the border issues affecting them.

It has been the experience in this region that the facilitation of a regional process for transboundary natural resource management must be based on a solid relationship of technical assistance and trust in each country. Regional collaboration is complicated and difficult. It requires considerable inputs from all sides before the benefits can be felt. Long-term relationships with the protected area authorities, and governments, of the countries in consideration must be developed beforehand. The “parachuting in” of a facilitator with little local credibility and track record would not be an effective means of establishing a framework for regional collaboration.

Chapter VI. Closing Remarks

To sum up, the International Gorilla Conservation Programme has been working in the Virunga-Bwindi region since 1991, toward the establishment of a regional framework for the conservation of afro-montane and medium altitude forests. The forests are protected as four national parks, divided into two forest blocks and shared by three countries.

Prior to the development of the regional program, the threats to the forests were being addressed at the national level by the protected area management authorities in each country with little or no coordination between them. Incursions from one side of the park across the border were not communicated to the respective park authorities on the other side of the border. Movements of key species, such as gorillas, were not followed once they crossed the borders, and not communicated to the authorities on the other side. Antipoaching and surveillance activities were limited to each park, and not coordinated with similar activities across the border. The regional framework for collaborative management of the contiguous parks, developed by IGCP, has effectively changed these trends. Although much still has to be done to realize the full potential in the region and to institutionalize the informal mechanisms now established in the field, a great deal has changed in the past 10 years. The park authorities meet each other on a regular basis; collect data on the gorillas; monitor ecological processes in the forest, as well as human use and key species activity, as part of a coordinated, regional program (ranger-based monitoring); coordinate surveillance activities in border areas as well as conduct joint patrols along borders; and implement joint training and assist each other in specific activities wherever and whenever possible (census, training, control of people passing through the park, and antipoaching). Formalization of these processes—and of this regional approach itself—is one of the main issues still to be addressed by the program. This crucial phase of the program, however, has been affected, and delayed, by the political crisis in the region and the difficult diplomatic relations among the countries concerned. Some level of regional stability is required to enable the signing of political agreements establishing regional collaboration.

Collaboration and coordination enhance conservation and management of natural resources shared across borders. This requires, however, a great deal of investment and trust by the authorities responsible for the management of the resources. Working together, sharing the costs and human resources required, will contribute to building trust, and in so doing strengthen the regional collaboration. Yet the initial process is difficult for a nationally based organization to initiate. It is therefore generally facilitated by an outside, neutral agency, supporting each of the authorities and bringing them together to work at a regional level. The effectiveness of the facilitation depends on the prior establishment of a

long-term, and technically strong relationship between the outside agency and the national authority in each of the countries.

The regional framework can initially be established on the ground, informally among the park authorities. Mechanisms for communication, the development of a partnership and common objectives and planning among the authorities will enable regional mechanisms to be established. Concurrently, or at a later phase, the informal mechanisms can be formalized, and institutionalized, to become sustainable. This requires political agreements among the countries, and a high-level recognition of the value of the natural resources, and the need for their conservation at a regional level. The political agreements are generally contingent on political stability and good diplomatic relations between the countries concerned. Given that the political climate in parts of Sub-Saharan Africa is currently tense, and that political agreements between countries sharing resources are not always possible, the approach focusing on the establishment of field-based mechanisms for regional collaboration often precedes the formalization phase. In addition, a formalized agreement, in absence of the mechanisms on the ground to implement it, is of very little value with respect to protected area and natural resource management. An emphasis on field-level mechanisms for regional collaboration, slowly evolving into a higher-level formalized agreement for collaboration is the strategy that was applied by the International Gorilla Conservation Programme in the Virunga-Bwindi region.

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Annexes

A. Protected areas in the Virunga-Bwindi region

All four of the national parks included in the discussion, the Parc National des Virunga, Parc National des Volcans, Mgahinga Gorilla National Park and Bwindi Impenetrable National Park fall into IUCN Class II of protected areas.

Parc National des Volcans (PNV) is situated in northwest Rwanda, bordering DR Congo and Uganda. It was established in 1929 as part of the Albert National Park in the Belgian Congo, which included the entire volcanoes area, and became the PNV in 1960 following independence. The PNV (about 160 km²) is contiguous with the Mikeno sector of Parc National des Virunga in DR Congo (roughly 250km²) and Mgahinga Gorilla National Park in Uganda (34 km², created in 1991). Five volcanoes mark the park's boundary with DR Congo and Uganda, and are (from east to west) Karisimbi, Visoke, Sabyinyo, Mgahinga, and Muhabura. These volcanoes belong to the Virunga chain, forming part of the watershed between the Nile and Congo river systems. As such, the forested slopes of the PNV are important water-catchment areas for the surrounding agricultural lands.

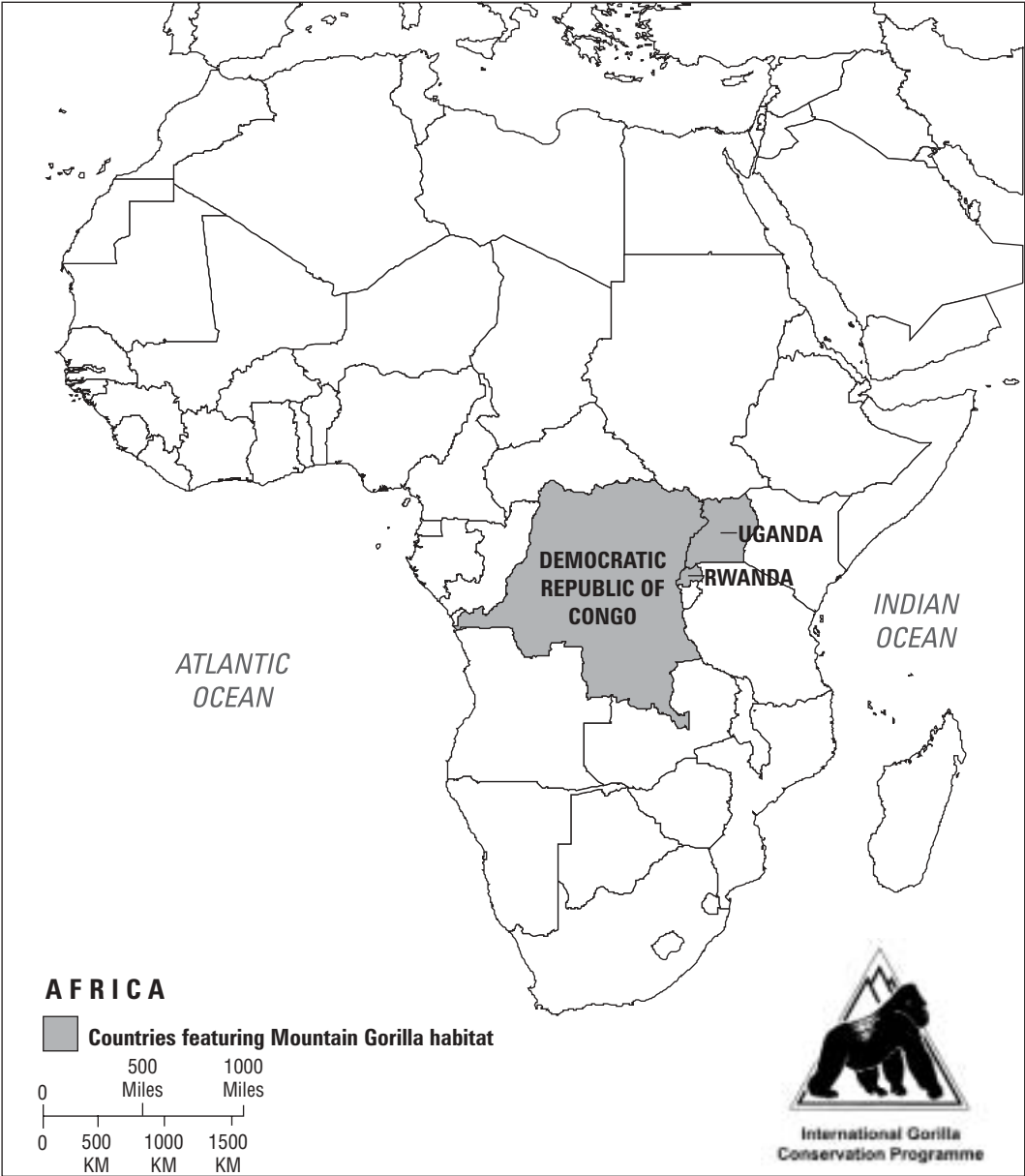
Bwindi Impenetrable National Park (BINP) was established as a forest reserve in 1932 and designated as a national park in 1991. It is located in southwestern Uganda, on the border with DR Congo. It covers an area of 321 km² with an altitude ranging between 1,116 and 2,607 meters. The forest constitutes an important water-catchment area for the many rivers supplying the agricultural land of the surrounding region. Owing to the steep slopes, the soils are highly susceptible to erosion in areas where trees are cleared. The Bwindi forest is one of the richest forests in Uganda in terms of the number of plant species and is one of the few large expanses of forest in East Africa where lowland and montane communities meet (Butynski and Kalina 1998). With its nature tourism and two habituated mountain gorilla groups, BINP generates significant tourism revenue and provides benefits directly to the local communities (via the UWA park revenue-sharing program, established with the assistance of IGCP-USAID and CARE) and to the nation. The park alone earns more than US\$500,000 per year from tourism, and 20 percent of the park entrance fees go directly to the community. These funds are managed jointly by the communities, district authorities and park staff, and are used to fund projects benefiting the entire community. Examples of projects that have received funds include the building of schools, purchase of school materials and rehabilitation of roads and bridges.

Mgahinga Gorilla National Park (MGNP) was established in 1964 as a reserve to protect the mountain gorilla, and was classified as a national park in 1991. As in the rest of the Virunga Massif, it includes a number of other large mammal species: the golden monkey (*Cercopithecus mitis kandti*, IUCN “endangered”), forest elephant (*Loxodonta africana cyclotis*, IUCN “endangered”), giant forest hog (*Hylochoerus meinertzhageni*), bushbuck (*Tragelaphus scriptus*), buffalo (*Syncerus caffer*) and abundant birdlife. It covers 34 km² and is contiguous with the PNV in Rwanda and the PNVi in DR Congo. The park incorporates the northern flanks of three of the Virunga volcanoes (Muhavura with the highest point, Mgahinga and Sabyinyo) with an altitude ranging between 2,700 and 4,127m. MGNP has only one group of habituated gorillas that spends its time moving between MGNP and the PNVi in DR Congo. With only one group of gorillas as part-time residents, MGNP is earning about US\$120,000 per year and provides benefits to local communities living around the park in the same way as the BINP.

In the Democratic Republic of Congo, IGCP’s main focus has been on the Southern Sector (Mikeno Sector) of the **Parc National des Virunga (PNVi)**. Established in 1925, the park is located in northeastern DR Congo on the border with Uganda and Rwanda. The entire park has a very elongated shape with a length of about 300 km comprising a total area of about 7,800 km². The uniqueness and great biodiversity of the PNVi is related to two main factors: the altitudinal range (between 798 and 5,119 meters) and volcanism (d’Huart 1987). The Southern Sector includes the Virunga Volcanoes Massif, with active (Nyamulagira and Nyiragongo) and dormant (Mikeno, Visoke, Sabyinyo, and Mgahinga) volcanoes, and is contiguous to the east with the Parc National des Volcans (PNV) in Rwanda and the Mgahinga Gorilla National Park (MGNP) in Uganda (Delvingt, Lejoly, and Ma Mbaelele 1990). The area covering the dormant Virunga volcanoes and contiguous with Rwanda and Uganda is the Mikeno sector, which covers about 250 km². This sector comprises the largest portion of afro-montane forest, the habitat of the mountain gorilla.

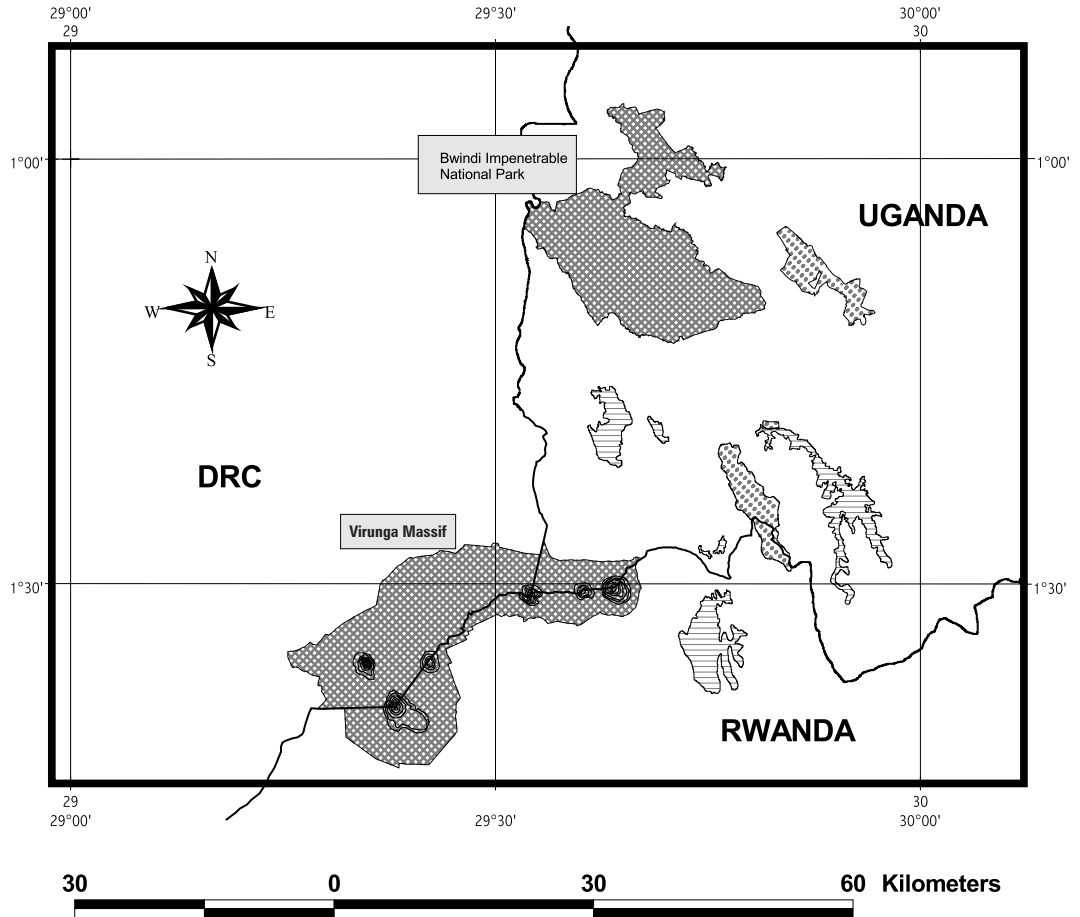
This sector has been seriously affected by the presence of Rwandan refugees who fled the 1994 war in Rwanda and who lived along the border of the park in refugee camps for more than two years. Until the recent crisis in the region, the Southern Sector of the park was the primary source of income for the protected area authorities, generating funds through tourism for the protection of all the parks in the country. Most of the funds came from tourists visiting the five groups of habituated gorillas in their natural habitat. Throughout the crisis, the Institut Congolais pour la Conservation de la Nature (ICCN) has continued to monitor the park, although certain areas have been restricted because of security risks associated with the presence of armed groups moving through the forest, and associated dangers in the region. Militias and insurgents still use parts of the forest to cross the border with Rwanda illegally, and these areas pose a security problem to the park guards. The military works with the protected area authorities to patrol and protect the insecure border areas of the park.





B-1. Map of the region



B-2. Map of the Virunga-Bwindi region

Mountain Gorilla distribution



-  Lakes
-  International borders
-  Forest reserves
-  Gorilla habitat

