

ACKNOWLEDGMENTS

Uganda Wildlife Authority (UWA) prepared this General Management Plan with total funding from Uganda Wildlife Authority. Consultations were held with all relevant stakeholders both at Resource use level, Subcounty level, District level and at National Level. Furthermore an analysis of stakeholders was done which gave guidance on the consultations made.

Uganda Wildlife Authority highly acknowledges the Local Communities and the entire Kisoro district leadership, who contributed to the proposals during the Planning process.

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FOREWORD

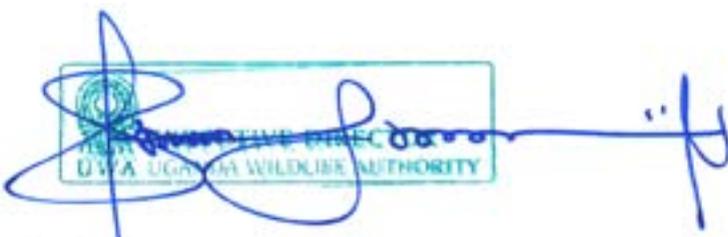
Mgahinga Gorilla National Park (33.7 km²) is contiguous with Parc National des Virunga (240 km²) in the DRC, and Parc National des Volcans (160 km²) in Rwanda, all forming the proposed transboundary PA known as the Virunga Conservation Area covering an area of 434 km². The park includes three of the Virunga volcanoes - Mt Muhabura (4,127 m), Mt Gahinga (3,474 m) from which the park derives its name, and Mt Sabinyo (3,645 m). This park forms part of the home of the world's Mountain Gorilla population and the Golden Monkey species.

This document presents a ten-year management plan for Mgahinga Gorilla National Park (MGNP). Uganda Wildlife Authority (UWA) is committed to the continued sustainable management of the Park ecosystem. This can only be achieved through proper long term planning which government has already identified and provided for in the Uganda Wildlife Act (Cap 200). Anyone reading this management plan will easily find out that it was prepared through a rigorous consultation process involving all stakeholders to ensure its acceptability and therefore ease of implementation. This General Management Plan also has captured the Business aspects mainly from Tourism to enable us improve on the revenue generation capacity to be able to sustain our operations.

I would like to thank all those who worked tirelessly to prepare this General Management Plan. Special thanks to the Planning team for the time and effort put into the process.

Allow me to also express my gratitude to the entire Board of Trustees for their valuable comments, which enabled us to improve the document.

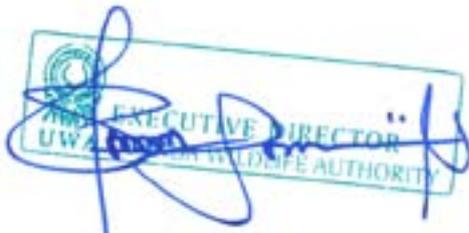
Lastly, I duly entrust the Conservation Area Manager, Bwindi-Mgahinga Conservation Area with the authority to implement this plan.



Dr. Andrew Seguya
EXECUTIVE DIRECTOR

APPROVAL

The Board of Trustees of Uganda Wildlife Authority at their meeting of April 4, 2014 which took place in Bwindi National Park Headquarters-Buhoma approved this General Management Plan for implementation.

A blue ink signature is written over a rectangular stamp. The stamp contains the text "EXECUTIVE DIRECTOR" and "UGANDA WILDLIFE AUTHORITY" along with a small circular logo on the left.

Dr. Andrew Seguya
Executive Director

A blue ink signature is written over a rectangular stamp. The stamp contains the text "CHAIRMAN BOARD OF TRUSTEES" and "UGANDA WILDLIFE AUTHORITY" along with a small circular logo on the left.

Mr. Benjamin Otto
Chairman Board of Trustees

LIST OF ABBREVIATIONS

ARCOS	Albertine rift Conservation Society
AWCC	Assistant Warden Community Conservation
AWLE	Assistant Warden Law Enforcement
AWT	Assistant Warden Tourism
BDM	Business Development Manager
BINP	Bwindi Impenetrable National Park
BMCA	Bwindi Mgahinga Conservation Area
BMCT	Bwindi Mgahinga Conservation Trust
CAM	Chief Conservation Area Manager
CAOs	Chief Administrative Officer
CARE	Corporation for Assistance and Relief Every Where
CBOs	Community Based Organisations
CCAM	Chief Conservation Area Manager
CCC	Coordinator Community Conservation
CDO	Community Development Officers
CITES	Convention on International trade in Endangered Species
CMAF	Climate Change Mitigation and Adaptation Fund
CMS	Convention on Migratory Species
CTPH	Conservation Through Public Health
DC	Director Conservation
DCDOs	District Community Development Officers
DEO	District Environment Officer
DFA	Director Finance and Administration
DFOs	District Forestry Officers
DRC	Democratic Republic of Congo
DTBS	Director Tourism and Business Services
ED	Executive Director
EIA	Environmental Impact Assessment
EMRC	Ecological Monitoring and Research Coordinator
EMRU	Ecological Monitoring Unit
FFI	Flora and Fauna International
GHG	Green House Gases
GMP	General Management Plan
GO	Gorilla Organisation
GPS	Geographical Information System
GVTCS	Great Virunga Trans-boundary Collaborative Secretariat
HIV	Human Immune Virus
HRU	Human Resource Unit
HuGo	Human-Gorilla management group
ICCN	Institut Congolais pour la Conservation de la Nature
IGCP	International Gorilla Conservation Program
ITFC	Institute of tropical Forest conservation
IUCN	International Union Conservation of Nature
LDCs	Low Developed Countries
LEC	Law Enforcement Coordinator
LG	Local Government
LU	Law Enforcement Unit
M&R	Monitoring and Research

MEM	Monitoring and Evaluation Manager
MENP	Mt Elgon National park
MGNP	Mgahinga Gorilla National Park
MGVP	Mountain Gorilla Veterinary Project
MoUs	Memorandum of Understandings
MUK	Makerere University
MUST	Mbarara University of Science and Technology
NAPA	National Adaptation Plan of Action
NCCDF	Nkuringo Community Conservation Development Foundation
NEMA	National Environmental Management Authority
NFA	National Forestry Authority
NGO	Non- Government Organisation
PA	Protected Areas
PAM	Protected Area Management
PC	Partnership Coordinator
PCLG	Poverty and Conservation Learning Group
PEIAC	Planning Environmental Impact Assessment Coordinator
PES	Payment for Ecosystem Services
PM	Procurement Manager
PROBICOU	Pro-biodiversity conservationists in Uganda
RS	Revenue Sharing
SPEIAC	Senior planning Environmental Impact Assessment Coordinator
SPEIAO	Senior Planning Environmental Impact Assessment Officer
SPP	Species
SRMC	Senior Research and Monitoring Coordinator
STAR	Sustainable Tourism in the Albertine Rift
SWIFT	Special wildlife Intervention Force
UCOTA	Uganda Community Tourism Association
UNIDO	United Nations International Development Organization
UNRA	Uganda National Roads Authority
UOBDU	United Organization for Batwa Development in Uganda
UPDF	Uganda peoples Defense Forces
URP	Uplift the Rural Poor
UWA	Uganda wildlife Authority
VC	Veterinary Coordinator
VIC	Visitor Information Centre
WCC	Warden Community Conservation
WCS	Wildlife Conservation Society
WCU	Wildlife Clubs of Uganda
WEM	Warden Ecological Monitoring
WIC	Warden In Charge
WMR	Warden Monitoring and Research
WWP	Warden Wildlife Photographer

EXECUTIVE SUMMARY

Mgahinga Gorilla National Park is a home to the Nyakagezi group of the rare Mountain Gorilla. The Park is contiguous with Parc National des Virunga (240 km²) in the DRC, and Parc National des Volcans (160 km²) in Rwanda, all forming the proposed transboundary PA known as the Virunga Conservation Area covering an area of 434 km². The park includes three of the Virunga volcanoes - Mt Muhabura (4,127 m), Mt Gahinga (3,474 m) from which the park derives its name, and Mt Sabyinyo (3,645 m). It lies in Bufumbira county, Nyarusiza and Muramba sub-counties and adjacent to the three parishes of Gisozi, Rukongi and Gitenderi.

The park area was previously heavily encroached and settled, and its creation led to the eviction of over 2,400 people in 1992. For the last twenty one years (21 years), Uganda Wildlife Authority has implemented programs and activities which have seen the park recover to its original vegetation, though not yet fully recovered at the moment.

For the next ten years (2014 -2024), MGNP shall be conserved for its unique biodiversity including the critically endangered Mountain Gorilla and, the rare Golden Monkey, physical and ecological attributes of the park as part of the greater virunga transboundary ecosystem for the benefit of the local, national and international community.

The following are some of the key Conservation Values identified during the planning process;

1. Mountain Gorillas
2. Water catchment
3. Geomorphologic formations (Vulcanicity resulting in diverse products)
4. Cultural heritage of the indigenous people
5. Esthetic values (Stunning scenic beauty, Sabyinyo gorge,)
6. One of the two sites for Golden Monkeys in-situ in the world
7. Habitat for endemic and endangered plants and animals (The Bamboo forest, Swamps)
8. High altitude Crater lakes (On Mt. Gahinga)
9. Climate stabilization
10. Part of the Wider ecosystem of the greater Virunga

This plan covers seven programs namely Resource Conservation and Management that addresses all issues relating to securing the integrity of the park, the Research and Monitoring program that addresses the research and ecological monitoring needs and challenges, the Community Conservation program that aims at ensuring that conflicts with communities arising out of the existence of the park are minimized, the Park Operations that addresses the logistical and administrative requirements, the Regional Collaboration that lays down management actions for ensuring collaboration across border given the transboundary nature of the resource and lastly, the Business Plan that will ensure the financial resources required to implement the plan are generated.

Financial requirements

It is estimated that a total of fourteen billion, nine hundred and eighty two million, eight hundred and thirty one thousand four hundred and forty Uganda shillings (shs 14,982,831,440) will be spent in implementing the above planned activities over the 10 year period.

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PART I: BACKGROUND

I.1. PARK DESCRIPTION AND MANAGEMENT HISTORY

I.1.1 Location and access

Mgahinga Gorilla National Park (MGNP) is located in the extreme south-western corner of Uganda between latitude -1.33 to -1.38 South and longitude 29.60 to 29.70 East. It covers an area of 33.7 km² at the borders of DRC and Rwanda. The park is about 510 km by road from Kampala through Kabale town and Kisoro town. It is 13.6 km from Kisoro town to Ntebeko Park Headquarters.

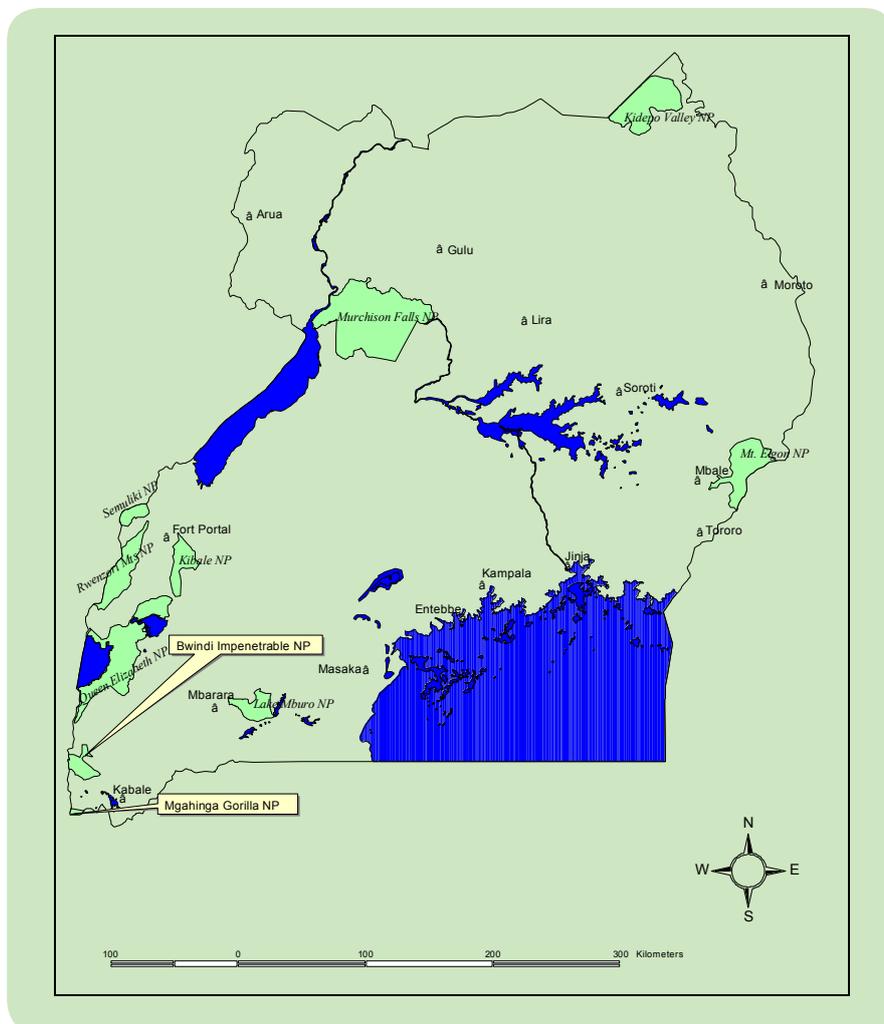


Figure I: Map of Uganda showing the location of MGNP in relation to BINP

1.1.2 Park management history

Legal Establishment: The area was originally established as a Forest Reserve. A Sanctuary to protect gorillas was established by Legal Notice 21 of 1930, the area being upgraded to Game Reserve Status by SI No. 216 of 1964 (substituted by SI No. 136 of 1965). The National Park was established by SI No. 27 of 1991, amended by SI No. 3 of 1992.

At 33.7 sq.km, Mgahinga Gorilla NP (MGNP) is Uganda’s smallest National Park.

Initially declared an Animal Sanctuary in 1930 to protect the mountain gorillas, Mgahinga became a Game Reserve in 1964. By the late 1980s the area was severely encroached, but after the area was upgraded to a National Park in 1991 encroaching families were persuaded to leave.

MGNP shares its gorilla population with the adjoining Parc National des Volcans in Rwanda and the Parc National des Virungas in Zaire. The area has a significant large mammal population, including elephants, buffaloes and giant forest hog. This is the only Park in Uganda in which the rare golden monkey is found. The table below shows the detailed gazettelement documents shown in the table below:

	National Park	Year established	Legislation establishing the PA	Changes to Protected Area and legislation effecting changes.
1	Mgahinga Gorilla	1991	National Parks (Declaration of Park) (Mgahinga Gorilla National Park) Order. S.I 27/1991	1992-Amended by S.I 3/1992

Figure 2: Table showing the park gazettelement history

Boundary Description/Boundary Plan: “The area referred to as Mgahinga Gorilla National Park is bounded by a line from the highest point of Sabinjo Mountain following the Zaire and Uganda International Boundary in a north easterly direction to the contour line 7300 ft; thence in south-easterly direction in a straight line to River Ntebeko; thence in an easterly direction along the 8000 ft contour line (Formerly planed with Grevillea trees) to a Boundary Pillar 14 on the international border between Uganda and Rwanda situated between the hills, Nyarubebsa and Mussonga; thence following the international boundary between Uganda and Rwanda in a south-west and westerly direction to the point of commencement.” The map below shows the boundary description.

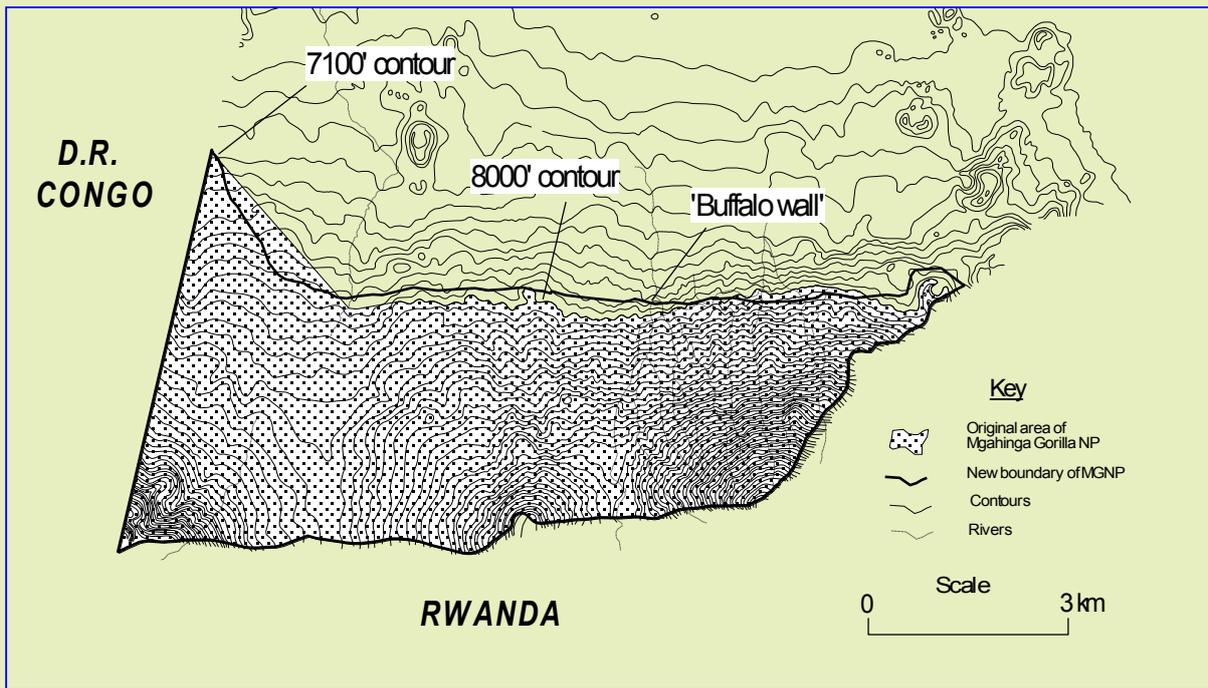
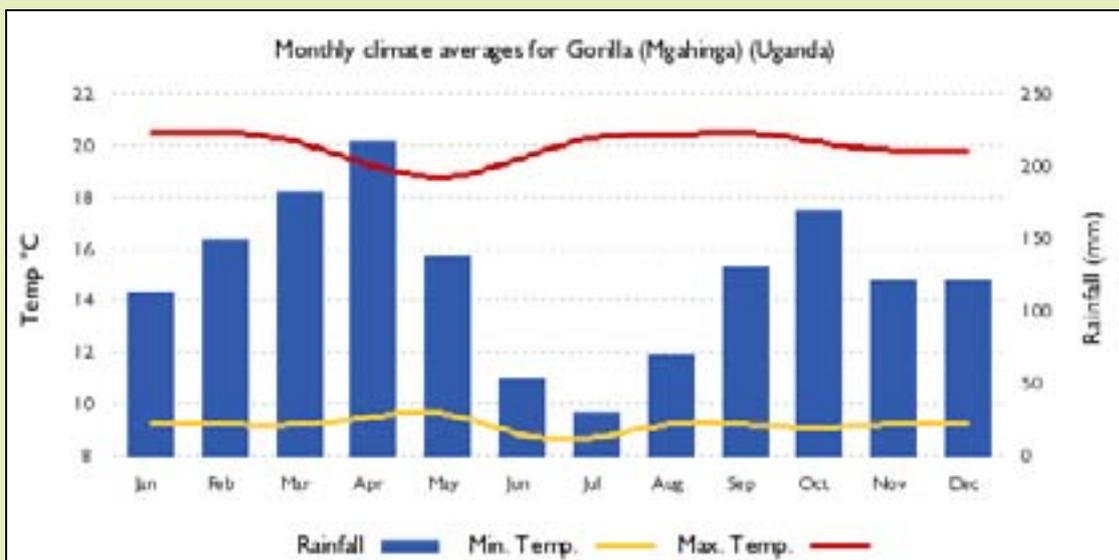


Figure 3: Map showing the boundary line of MGNP

1.1.3 Climate and Hydrology

Mgahinga area is characterised by two rainfall seasons (March-April and September-December) and two dry seasons (January-February and May - August). The Virungas generally receive higher rainfall than the surrounding areas. MGNP is frequently shrouded in mist and humidity is high. Temperatures generally range from 4° C at the highest elevations to 18° C at the lowest points. The tops often reach freezing points and hailstorms are common. The graph below shows the rainfall patterns.



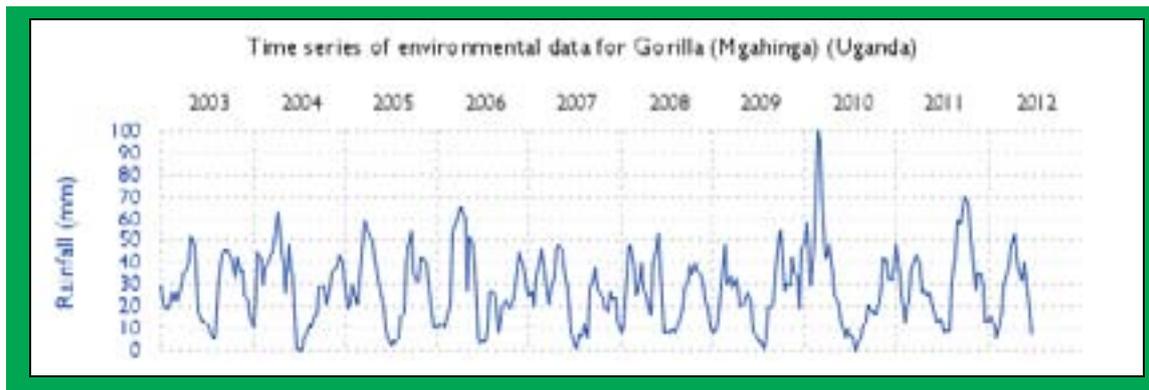


Figure 4: Graphs showing rainfall patterns around MGNP

MGNP (and the Virungas) is an important water catchment area. Due to its protective cover of vegetation, MGNP's role in water catchment is superior to the surrounding terrain. Apart from the numerous streams flowing northwards from the mountains, there is a crater lake and a swamp crater on Mt Gahinga summit. There are also swamps in the saddles between the three volcanoes that retain water all year round, while the plains at the foot of the volcanoes are characterised by deep volcanic ash, and run-off from the mountains rapidly disappears underground. The main source of the north-flowing surface water is the Kabiranyuma swamp in the Muhabura - Gahinga saddle. River Kabiranyuma drains the swamp and is an important source of water for the populations around. It is the only river that does not dry up completely in the driest months of June to August. River Ntebeko drains the Rugezi Swamp in the Gahinga - Sabinyo saddle northwards to the DRC, while Nyabirerema stream drains Mt. Sabinyo northwards to DRC.

1.1.4 Relief

MGNP extends from about 1,117m to 4,127m with a terrain that ranges from gentle slopes at lower elevations to steep, very diverse, rugged slopes exceeding 60° at high altitudes. There are three volcanoes which are part of the Virunga volcanic range in East Central Africa, expanding to the Albertine Rift on the Rwanda, DRC and Uganda border, north and north east of Lake Kivu. The three volcanoes in MGNP are thought to have arisen in the early to mid-Pleistocene era, and to have formed through a deposition of layers of ash and cinders from successive lava flows (Kingston, 1967 as cited in MGNP Management Plan, 1996-2000). Sabinyo is believed to be the oldest volcano, followed by Gahinga, which is younger, and with a swamp crater of about 180m diameter at the summit. Muhabura is believed to be the youngest volcano. It is cone-shaped with a small crater lake approximately 36m in diameter at its summit. There are numerous caves on the slopes of the mountains, caused by lava tubes. The soils are all derived from volcanic activity and reflect the relatively short time since the last eruption.

1.1.5 Flora (Vegetation)

The vegetation in MGNP consists of woodland, and only a small area of pure montane forest still remains at the base of Mt Muhabura following encroachment in the 1950s. Above the montane forest belt is the bamboo (*Arundinaria alpina*) zone that stretches from the western boundary on Sabyinyo to the lower slopes of Muhabura. The Hagenia-Hypericum zone appears above the bamboo zone on Mt. Sabyinyo and below it on Gahinga. The Afro-Alpine Belt, characterised by giant *Senecio* and *Lobelia* species, occurs above the Ericaceous Belt and reaches its maximum development on Mt. Muhabura.

1.1.6 Fauna (Mammals)

In MGNP, 39 mammal species have been recorded, but it is believed that up to 89 do occur (Baranga 1990). The larger mammals include the mountain gorilla (*Gorilla gorilla beringei*), and buffalo (*Syn- cerus caffer*). There is also the rare golden monkey (*Cercopithecus mitis kandti*) known only to occur in the Virungas and two other forests in Central Africa and the blue monkey (*Cercopithecus mitis* sp.). Other mammals include the golden cat (*Felis (Profelis) aurata*), serval cat (*Felis (Leptculurus) serval*), leopard (*Panthera pardus*), spotted hyena (*Crucuta crocuta*), side-striped jackal (*Canisadus- tus*), black-fronted duiker (*Caphalophus nigrifrons*), bushbuck (*Tragelaphus scriptus*) and giant forest hog (*Hylocheorus meinertzhageni*).

79 bird species have been recorded in MGNP, including several endemic to the East Congo Montane region. A total of 185 bird species have been recorded in Parc National des Volcans, and most are likely to occur in MGNP.

1.1.7 The Planning Process

The Planning process for MGNP was undertaken together with the planning process for Bwindi Impenetrable National Park and the whole process started with the selection of a multi-disciplinary team, which was involved in the solicitation of views and identification of proposals for management of the Park. A planning team was composed of 16 people including 5 representatives from the local government and community leaders as shown below.

	Designation	Institution/PA
1	Senior Planning and EIA coordinator (SPEIAC) - Team leader (Mr. Edgar Buhanga)	UWA Headquarters
2	Senior Planning and EIA Officer (SPEIAO) (Mr. Kapere Richard)	UWA Headquarters
3	Monitoring and Evaluation manager (MEM) (M/s Namuli Susan)	UWA Headquarters
4	Chief Conservation Area Manager (CAM) – Co-team leader (Mr. Pontius Ezuma)	BMCA
5	Warden Monitoring and Research (WMR) (Mr. Raymond Kato)	BINP
6	Warden Community Conservation (WCC) (M/s Olivia Biira)	BINP
7	Assistant Warden Tourism (AWT) (Mr. Balyesiima Geofrey)	BINP
8	Assistant Warden Law Enforcement (AWLE) (Mr. Frank Sunday)	BINP
9	Warden in-charge (WIC) (Mr. Christopher Masaba)	MGNP

	Designation	Institution/PA
10	Assistant Warden Community Conservation (AWCC) (Mr. Okuta Charles)	MGNP
11	Assistant Warden Tourism (AWT) (Mr. Chemonges Amusa)	MGNP
12	Director, Institute of Tropical Forest Conservation (Dr. Robert Bitariho)	ITFC
13	Country Director, International Gorilla Conservation Program (Mr. Stephen Asuma)	IGCP
14	Natural Resources Coordinator (Mr. Paul Sabiiti)	Kabale
15	Non-Governmental Organisation Forum Representative (Mr. Sebuhinja Julius)	Kisoro
16	District Environment Officer (DEO) (Mr. George Agaba)	Kanungu

Figure 5: Table showing the planning team

The team went through a series of planning steps to come up with this Plan. Among them was the field reconnaissance where members were exposed to all issues in the field, stakeholder consultation process where various members of the communities including the user groups, community leaders, District leaders, were consulted regarding their views on the park management. Thereafter a proposal generation workshop was held for the planning team to harmonize views received from various stakeholders and agree on proposals for the general management plan. The draft was presented to the stakeholders and UWA staff. It was later presented to the BoT for their input and approval and finally printed.

I.1.8 Stakeholders analysis

The following stakeholders and their respective roles were identified through a stakeholder analysis as follows;

	Stakeholder	Role
1	International Gorilla conservation program (IGCP)	Support community development enterprises around the PA, support problem animal control, support tourism development, Field equipment support, Coordinated patrol and staff capacity building
2	Bwindi Mgahinga Conservation Trust (BMCT)	Support community development, Research, conservation awareness, Batwa resettlement
3	Corporation for assistance and relief everywhere (CARE International)	Community awareness and advocacy for conservation
4	Gorilla Organisation (GO)	Problem animal control, energy saving technologies, enterprise development
5	Great Virunga Transboundary collaborative secretariat (GVTCS)	Transboundary collaboration and enterprise development
6	Institute of tropical forest conservation (ITFC)	Research
7	Local Government (Kisoro)	Policy development, community mobilisation, project implementation
8	Conservation through public health (CTPH)	Community health awareness, disease surveillance-human and wildlife
9	Mountain Gorilla veterinary project (MGVP)	disease surveillance and veterinary interventions in Gorillas
10	United Organisation for Batwa Development in Uganda (UOBDU)	Advocacy for Batwa development
11	Nkuringo community conservation development foundation (NCCDF)	Co-Management of the Buffer zone-problem animal control, community development

	Stakeholder	Role
12	Uplift the rural poor (URP)	Community development
13	NGO Forum (Kisoro)	Awareness and Advocacy for conservation benefit sharing
14	Hotels and Lodges around MGNP	Provision of accommodation to visitors
15	Tour companies	Management of safaris
16	Resource Users	Sustainable resource use, monitoring illegal activities
17	Research Institutions-MUST, MUK, ITFC	Research
18	United Nations International Development Organisation (UNIDO)	Community development
19	Uganda National Council of science and technology	Regulate research programs
20	Uganda Community Tourism Association (UCOTA)	Capacity building for communities
21	Sustainable Tourism in the Albertine Rift (STAR)	Support community tourism enterprises
22	NatureUganda	Nature conservation-Monitoring important bird areas
23	Albertine Rift Conservation Society (ARCOS)	Conservation planning and research for the Albertine Rift region
24	National Environment Management Authority (NEMA)	Environmental monitoring and compliance
25	Wildlife Conservation Society (WCS)	Fire management
26	National Forestry Authority (NFA)	Support tree planting activities around the Pas
27	Rwanda Development Board (RDB)	Management of a contiguous ecosystem, knowledge and information sharing
28	Institut Congolais pour la conservation de la nature (ICCN)	Management of a contiguous ecosystem, knowledge and information sharing
29	Wildlife Clubs of Uganda (WCU)	Conservation awareness
30	Uganda Peoples Defence Forces (UPDF)	Security
31	Batwa Development program (BDP)	Advocacy and resettlement
32	Bwindi community hospital	Staff, tourists and community health services
33	Fauna and Flora International (FFI)	Community mobilization and sensitization to support conservation and indigenous peoples livelihood improvement
34	Pro-biodiversity conservationists in Uganda (PROBICOUG)	Research, Livelihood, advocacy and revenue sharing management
35	Poverty and Conservation Learning Group (PCLG)	Research on poverty and conservation linkages
36	ACODE	Policy Research analysis and advocacy

Figure 6: Table showing stakeholders and their roles

I.2 ENABLING LEGISLATION AND POLICY

It is essential for PA managers to understand some of the relevant laws that empower them to do their work and the legal notices by which the park was established. With this knowledge, they can effectively conduct law enforcement work, ensure appropriate stakeholder participation in the management of the PA and address any challenges to its integrity. Some of the laws and policies pertaining to wildlife and biodiversity conservation in Uganda are summarized below.

1.2.1 The Constitution of Uganda (1995)

Overall government policy on natural resource conservation is enshrined in the Constitution, which provides that the State shall protect important natural resources such as land, water, wetlands, minerals, fauna and flora on behalf of the people of Uganda. In addition, the State shall create and develop parks and reserves to protect the biodiversity of Uganda (objectives XIII and XXVII).

1.2.2 The Uganda Wildlife Policy (1999 Draft)

The draft Uganda Wildlife Policy of 1999 is a revision of a 1995 version prepared prior to the enactment of the 1996 Uganda Wildlife Statute. This policy aims at making wildlife management more acceptable to Ugandans by ensuring that resources contribute to the well being of present and future generations. The policy seeks to conserve areas with great biological diversity which are representative of the major habitats of Uganda and which, together, include all indigenous species.

1.2.3 The Uganda Wildlife Act (Cap 200)

The management of wildlife and protected areas including BINP, is guided by the Uganda Wildlife Act of 2000 (Chapter 200 in the Laws of Uganda, 2000), which states, "A National Park shall be an area of importance for wildlife conservation and management". The Act authorizes UWA to assume responsibility for wildlife management in Uganda, both inside and outside its protected areas. Under the Act, a Board of Trustees is appointed by the Minister of Tourism, Trade and Industry as the governing body of UWA. Section 13 of the Act requires the Executive Director to prepare a management plan for each protected area. The Act also includes all the Schedules of the repealed Game (Preservation and Control) Act, 1964, (the principal legislation of the former Game Department), and the National Parks Act, 1952.

1.2.4 The National Environment Act (Cap 153) 2000

The National Environment Act establishes the National Environment Management Authority (NEMA) as the principal agency in Uganda for the management of the environment. Section 37(1) of the Act provides for the identification and sustainable management of wetlands. Wetlands according to Section 37 (2) can be of "local, national and international importance as ecosystems and habitats of species of fauna and flora."

The Third Schedule of the Act requires that environmental impact studies be carried out when national parks, game reserves (now wildlife reserves) and buffer zones and several other developments are being established. Guidelines for this process are given in the National Environmental Impact Assessment Regulations, 1998.

The National Environment Act, 1998 is key in guiding the management of MGNP. Under general principals of environment management 2 (a) the Act notes that it is important to assure all people living in the country the fundamental right to an environment adequate for their health and well-being. Some communities such as Batwa have values to which they attach their health, spirituality and heritage.

Some of these are in the protected areas and therefore negotiated access is important to improve their well being. Section 2 (b) calls for maximum participation by the people in the development of policies, plans and processes for the management of the environment. Section 2 (d) of the NEA calls for conservation of the cultural heritage and use of the environment and natural resources for the benefit of both present and future generations. This can act as an avenue where the people can give their views and perspectives on how they visualize the park and the values they cherish there.

¹ First enacted as the Uganda Wildlife Statute No. 14 of 1996

² First enacted as the National Environment Management Statute No. 4 of 1995

A careful harmonization of their interests with those of the Park management can create a harmonious environment through which biodiversity can thrive. Section 49 (1) of the Act calls for conservation of objects and sites in the natural environment which are of cultural importance. Section 49 (2) calls for the documentation of objects and sites identified in (1). This calls for joint research between the PA management and communities to document what activities happen at the different sites which can be used for negotiating of use of such sites found in the park.

1.2.5 The Tourism Policy of Uganda 2003

The Tourism Policy recognizes that in the 1960's Uganda was a main tourism destination in Eastern Africa and therefore tourism was one of the major economic sectors for the country. Unfortunately the turmoil of the 1970's and 1980's drastically reduced wildlife numbers and destroyed infrastructure resulting into reduced numbers of tourists. This policy is aimed at ensuring that tourism becomes a vehicle for poverty eradication in the future to the extent possible within the resource base and market limitations. It further recognizes UWA's role and contribution towards the achievement of this objective. This is mainly in the area of managing and developing the extensive resource base as well as developing and marketing various products. The policy further emphasizes the need to facilitate the flow of tourists within the region and promotion of East Africa as a single tourist destination.

1.2.6 The National Forestry and Tree Planting Act, 2003

The Act provides for among other things, the conservation, sustainable management and development of forests, and the promotion of tree planting for the benefit of people of Uganda and the international community. It classifies forests in Uganda as central forest reserves, local forest reserves, community forests and forests forming part of a wildlife conservation area declared under the Uganda Wildlife Statute, 1996. The Act recognizes various stakeholders in the management of forest reserves, which should be guided by the Management Plan prepared by the responsible body. In addition the Act aims at ensuring that forests and trees are conserved and managed in a manner that meets the needs of the present generation without comprising the rights of future generations by safeguarding forest biological diversity and the environmental benefits that accrue from forest and trees.

1.3 INTERNATIONAL CONVENTIONS AND AGREEMENTS

The following conventions are some of the most relevant to the conservation of biodiversity in Uganda:

1.3.1 Convention on Biological Diversity, 1992

In 1993, Uganda became a signatory to the Convention on Biological Diversity, which in Article 8, obliges member states to:

- Establish a system of protected areas
 - Develop guidelines for the selection, establishment and management of protected areas
 - Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings
- Article 8j of the Convention of Biological Diversity (CBD) 1992 provides for indigenous knowledge in the management of biodiversity, while preserving the rights and dignity of the local lifestyles of the communities. Article 10c provides for customary sustainable use while article 15 provides for access and sharing of benefits accruing from the management of the genetic resources.

1.3.2 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Uganda is a party to CITES, which obliges member states to adhere to the recommendations of the Conference of Parties with respect to trade in endangered species.

1.3.3 Ramsar Convention on Wetlands, 1971

The Ramsar Convention on Wetlands emphasizes the need to conserve wetlands and requires member states to include possible wetlands on the list of Wetlands of International Importance. Uganda already has the following designated Ramsar sites and more are being proposed:

- i. Lake Bisina wetland system
- ii. Lake Mburo – Nakivali wetland system
- iii. Lake Nakuwa wetland system
- iv. Lake Opeta wetland system
- v. Lutembe Bay wetland system
- vi. Mabamba Bay wetland system
- vii. Murchison Falls-Albert Delta wetland system
- viii. Nabajjuzi wetland system
- ix. Sango Bay-Musambwa Island-Kagera wetland system
- x. Lake George
- xi. Lake Nabugabo wetland system

Lake Mburo, Murchison Falls and Lake George are fully/partly located in wildlife protected areas.

1.3.4 Convention on migratory species of wild animals (CMS)

Realizing that animal migration is a global phenomenon in response to biological requirements, several countries have come together under the CMS, also known as the Bonn Convention, to cooperate in the conservation of animals that migrate across national boundaries and between areas of national jurisdiction and the sea. The Convention aims to improve the status of all threatened migratory species through national action and international agreements between range states of particular groups of species. Agreements can range from legally binding multilateral treaties to less formal memoranda of understanding. The object of such agreements is to restore the migratory species to a favourable conservation status or to maintain it at that status.

The Convention has two appendices: Appendix I lists endangered migratory species, Appendix II lists migratory species to be subject to agreements. It also establishes a scientific council to provide advice

1.4 THE CONSERVATION VALUES OF MGAHINGA GORILLA NATIONAL PARK

1.4.1 Habitat for endangered species especially Mountain Gorillas

MGNP is a critical habitat for the habituated Gorilla group called Nyakagezi. The Gorillas are critically endangered subspecies of gorilla, the mountain gorilla (*Gorilla gorilla beringei*), and they are also found in Bwindi Impenetrable National Park which is part of the wider Virunga Landscape. The mountain gorilla is a major part of Uganda's heritage, and also of high tourism value to the nation.

1.4.2 Water catchment and retention, and climate stabilization

MGNP (and the Virungas) is an important water catchment area. Due to its protective cover of vegetation, MGNP's role in water catchment is superior to the surrounding terrain. Apart from the numerous streams flowing northwards from the mountains, there is a crater lake on Mt Muhabura and a swamp crater on Mt Gahinga summit. There are also swamps in the saddles between the three volcanoes that retain water all year round, while the plains at the foot of the volcanoes are characterised by deep volcanic ash, and run-off from the mountains rapidly disappears underground. The main source of the north-flowing surface water is the Kabiranyuma swamp in the Muhabura - Gahinga saddle. River Kabiranyuma drains the swamp and is an important source of water for the populations around. It is the only river that does not dry up completely in the driest months of June to August. River Ntebeko drains the Rugezi Swamp in the Gahinga - Sabinyo saddle northwards to the DRC, while Nyabirerema stream drains Mt. Sabinyo northwards to DRC.

1.4.3 Geomorphologic formations (Volcanicity resulting in diverse products)

There are three volcanoes which are part of the Virunga volcanic range in East Central Africa, expanding to the Albertine Rift on the Rwanda, DRC and Uganda border, north and north east of Lake Kivu.

The three volcanoes in MGNP are thought to have arisen in the early to mid-Pleistocene era, and to have formed through a deposition of layers of ash and cinders from successive lava flows (Kingston, 1967 as cited in MGNP Management Plan, 1996-2000). Sabyinyo is believed to be the oldest volcano, followed by Gahinga, which is younger, and with a swamp crater of about 180m diameter at the summit. Muhabura is believed to be the youngest volcano. It is cone-shaped with a small crater lake approximately 36m in diameter at its summit. There are numerous caves on the slopes of the mountains, caused by lava tubes. The soils are all derived from volcanic activity and reflect the relatively short time since the last eruption. These formations are responsible for supporting the diverse fauna and flora found in MGNP.

1.4.4 Habitat for endemic and endangered plants and animals (The Bamboo forest, Swamps)

MGNP is believed to have served as a Pleistocene refugium supporting forest species during the last Ice Age. As such they are unique areas for biodiversity and endemism in Uganda.

1.4.5 One of the sites for Golden Monkeys in-situ in the world

The golden monkey (*Cercopithecus kandti*) is a species of Old World Monkey found in the Virunga volcanic mountains in four National Parks; Mgahinga, in south-west Uganda; Volcanoes, in north-west Rwanda; and Virunga and Kahuzi-Biega, in the eastern Democratic Republic of Congo. It is restricted to highland forest, especially near bamboo. The Golden Monkey has a golden-orange patch on the upper flanks and back. Due to the gradual destruction of their habitat and recent wars in their limited habitat, the golden monkey is listed as endangered on the IUCN Red List.

1.4.6 High altitude Crater lakes (On Mt. Gahinga)

Mgahinga Gorilla National Park sits at an altitude of between 2,227m and 4,127m with Muhavura (4,127m) as the highest of the three peaks within the Park. MGNP's role in water catchment is superior to the surrounding terrain. Apart from the numerous streams flowing northwards from the mountains, there is a crater lake and a swamp crater on Mt Gahinga summit. There are also swamps in the saddles between the three volcanoes that retain water all year round.

1.4.7 Cultural heritage of the indigenous people

Apart from being important for wildlife, the park also has a huge cultural significance, in particular for the indigenous Batwa pygmies. This tribe of hunter-gatherers was the forest's "first people", and their ancient knowledge of its secrets remains unrivalled. People have lived around and within MGNP (until the early 1990s) for thousands of years as exemplified by the enormous knowledge about the park resources and their utilisation among communities.

Cultural songs, dances, household implements and tools, local names of people, places, water points, caves, gullies, streams, and hills within the park all reflect a long history of human involvement (Cunningham et al., 1993).

The Batwa culture is particularly intimately bound to Mgahinga Forest and its surrounding areas. To the Batwa the area signified a source of physical, emotional and spiritual well being. The caves in the park were important spiritual and cultural sites for them, and a few still visit them. Consultations in preparations for this GMP revealed that the desire to continue utilising cultural sites in the park still exist both among Batwa and non-Batwa. The folklore of the Bakiga and Bafumbira, the other ethnic groups neighbouring the park, also depicts a traditional dependence on the park's resources for household implements, agriculture and medicine. The activities of beekeepers, healers, blacksmiths and craftspeople are still closely associated with the park.

1.4.8 Esthetic values (Stunning scenic beauty)

Mgahinga's most striking features are its three conical, extinct volcanoes, part of the spectacular Virunga Range that lies along the border region of Uganda, Congo and Rwanda. Mgahinga forms part of the much larger Virunga Conservation Area which includes adjacent parks in these countries. The volcanoes' slopes contain various ecosystems and are biologically diverse, and their peaks provide a striking backdrop to this gorgeous scenery. Muhavura (4,127m) is the highest of the peaks in Mgahinga Gorilla National Park. The name means guide, and the Batwa used to look for its high peak to help orient themselves in the forest. Gahinga has a crystal clear crater lake about 36m wide at its summit. The top commands panoramic views far into Uganda, Rwanda and along the length of the Virunga chain. Mount Gahinga (3,474m) is the smallest of the Virunga volcanoes. It is named after the local practice of tidying the volcanic debris that clutters local farmland into neat cairns – or gahinga. Its swamp-filled crater is around 180m wide. Sabinyo means old man's teeth, a reference to its jagged summit which is dissected by deep gorges and ravines. The countries that share the Virungas – Uganda, Rwanda and the DR Congo – meet on the highest of Sabinyo's stumpy peaks.

PART 2: The Zoning Plan and Management Purpose

2.1 Management Purpose

To conserve, MGNP for its unique biodiversity including the critically endangered Mountain Gorilla and, the rare Golden Monkey, physical and ecological attributes of the park as part of the greater virunga transboundary ecosystem for the benefit of the local, national and international community.

2.2 Management Zoning

Zoning is a planning tool used to subdivide protected areas into distinct spatial areas according to their resource values and/ or sensitivity. Zone designation helps prescribe what may or may not take place in each zone in order to accomplish management objectives and achieve the desired future. Certain actions such as enforcement and research and monitoring however can take place in any zone. The zoning strategy for BINP seeks to achieve harmonious balance between the following;

- Protection of representative areas of biodiversity and ecological processes
- Infrastructure development necessary to manage the park
- Tourism activities, which generate income and raise the profile of MGNP
- Sustainable extraction of natural resources by the local people
- Cultural values promotion

Four zones have been identified i.e. Tourism, Wilderness, Administrative and Collaborative zones. Each zone is described below:-

2.3 Zone descriptions

2.3.1 Tourism zone

The tourism zone follows the primary routes intended to facilitate enjoyment and appreciation of the interior of the park by visitors when Gorilla tracking, Golden Monkey viewing, etc. The primary management objective is the protection of the natural and cultural values of the routes, in order to enable visitors to enjoy a rewarding and aesthetically pleasing Park experience. This zone shall include all the areas currently harbouring the habituated Nyakagezi gorilla group, the Batwa caves, the Mountain hiking to the three peaks.

Permitted Activities:

- Visitor use, day and overnight basis
- Overnight camping and accommodation for visitors
- Visitor information and interpretative services
- Fire management activities

Permitted Facilities/Infrastructure

- Campsites
- Improved trails/bridges

- Latrines
- Facilities supporting research, monitoring, and Park operations
- Signs for visitor orientation, security, and interpretation facilities

Prohibited Activities

- Killing wild animals
- Timber harvesting
- Setting fires unless authorized and provided for in the fire the management plan
- Picking flora and fauna from the park

Prohibited Facilities/Infrastructure

- Facilities supporting resource harvesting

Designated Areas within this Zone:

All tourism trails and tourist attractions.

2.3.2 Wilderness Zone

In this zone, protection of biophysical values is the primary consideration because of the sensitivity of the environment in the area. No harvesting by community residents is permitted and visitor access must be carefully managed. Pending the results of environmental impact assessments, basic facilities intended to minimise impact of visitors such as trails, footbridges, and latrines may be acceptable. Where a unique community resource is identified for harvesting in this zone, temporally MoUs and permits specifying controlled access routes and time period will be agreed on and thereafter no more access shall be allowed. This zone is shown in the zone map (Figure 7) below.

Permitted Activities:

- Research and monitoring activities
- Overnight use by approved researchers and Park staff only
- Day and night use by visitors on designated routes and camps
- Fire management activities
- Patrols

Permitted Facilities/Infrastructure:

- Improved trails and bridges in support of research, monitoring, Park operations, and visitor use
- Signs intended for visitor orientation, safety, and resource protection purposes
- Structures supporting Park operations and approved research
- Access to cultural sites under agreed terms and conditions

Prohibited Activities:

- Resource harvesting except under an agreed MoU

- Cultivation
- Overnight use other than by approved researchers and Park staff

Prohibited Facilities/Infrastructure:

- Structures and facilities except camp sites and patrol huts

Designated Areas within this Zone:

The zone as shown in the map below shall commence 1 km from the park boundary in areas where there is no tourism zone. Otherwise, the zone commence immediately after the tourism zone.

2.3.3 Administrative zone

Physical administrative facility development is concentrated in this zone. The facilities will include Ranger outposts and staff accommodation since park offices are located outside the park boundary.

2.3.4 Collaborative Management zone

In this zone, the management priority is to conserve the Park values through an integrated approach encompassing protection, education, restoration and community conservation approaches. Regulated harvesting of biophysical resources in a sustainable manner by community residents is allowed in agreed resource-use areas but only through negotiated collaborative management agreements. Collaborative management agreements will clearly define the resources to be used, the resource user community for each agreement and the agreed resource-use area for that community, together with the agreed control and monitoring mechanisms. The zone shall be confined within 1 km distance from the park boundary where there are no tourism activities.

Permitted Activities:

- Resource harvesting where appropriate as per collaborative management agreements
- Research, monitoring, and Park operations
- Accompanied visitor use
- Visitor information and interpretative services
- Fire management activities
- Small scale Garbage disposal sites for garbage originating from works permitted in the zone

Permitted Facilities/Infrastructure:

- Approved structures/facilities in support of research, monitoring, and Park operations
- Improved trails and bridges
- Latrines and approved garbage disposal sites
- Structures to facilitate cultural tourism initiatives supported by community residents

Prohibited Activities:

- Unaccompanied visitor use, either on a day or overnight basis
- Resource harvesting without approval under a collaborative management agreement
- Agricultural encroachment and settlements

- Timber harvesting
- Grazing and charcoal burning

Prohibited Facilities/Infrastructure

Permanent/year-round structures in support of resource harvesting

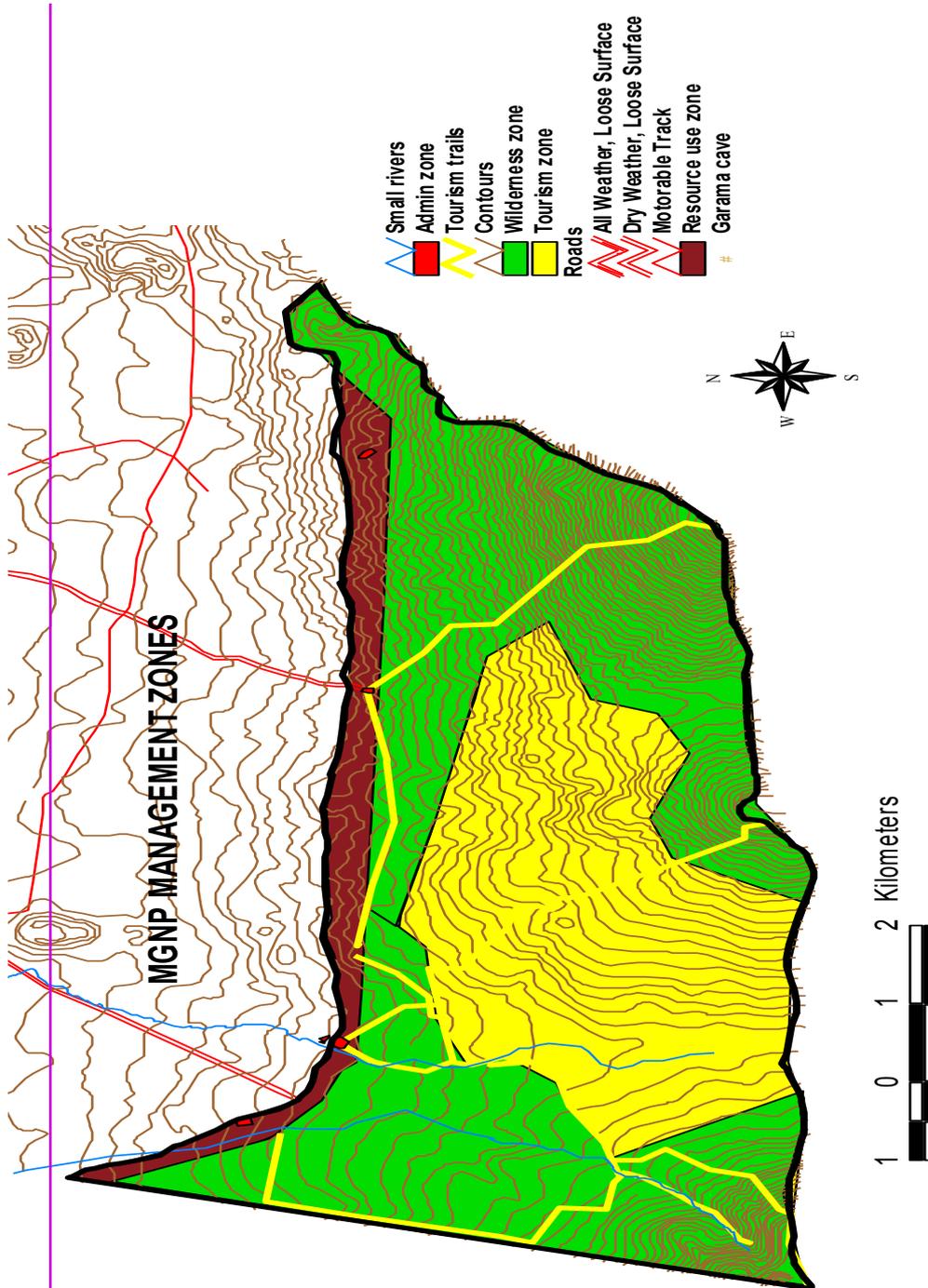


Figure 7: Map of MGNP showing the designated zones

PART 3: Resource Conservation and Management

Program objective: To maintain the integrity of the park

3.1 Security and safety

Output: Safety and security within the park improved

Issues and rationale

Over the past period since the political changes occurred in Rwanda, there has been relative good neighborliness between Uganda and Rwanda and therefore interactions between the two communities has been harmonious. The communities across the two countries share a common origin, both having a common language and ethnicity though divided and separated by a political boundary. These communities continue to move across the common border sometimes through the national park to visit and interact with their relatives. This has caused the communities of Rwanda and Uganda to freely move across borders particularly if they do not have immigration documents, they just cross through short routes to cross to either country thereby creating illegal access routes through the park.

Un fortunately, the some members of the community engage in criminal activities like stealing livestock and other foodstuffs and use the park as a transit route for the stolen goods. In addition some of these criminals are armed. The movement through the park of armed people with stolen property is a serious security threat to the wildlife, park staff and tourists.

There has been raging war in the DRC between insurgents and armed forces of the Government of DRC. These wars have caused threats to the prospective tourists who would wish to visit the park. There have been reports of animal killings for food by the insurgents. Information that goes out about killings of government soldiers, park staff and civilians in DRC has had negative consequences for the tourism in Mgahinga national Park since the messages that goes out is that the entire areas including Mgahinga is insecure. The civil wars in the DRC have also been a threat to wildlife in the virunga massif given the fact that most animals within this ecosystem are transboundary in nature. Whenever wildlife crosses to the DRC it is at risk of being killed by the protagonists.

During the war of the 1990s between the then rebels of Rwanda Patriotic Front (RPF) and Rwanda Government, the rebels used part of MGNP as a hide out. Several land mines were left in the national park unexploded. The explosives are a threat to the staff working in the park, the wild animals that range in the areas, the tourists that visit the park regularly and the community members that go to the park for resource harvesting.

Management actions

Management of the park will intensify law enforcement and monitoring operations along illegal routes. This will involve closing the illegal routes through the park by deployment of staff at known times of illegal entry. All entry to the country will be through the designated immigration routes at Cyanika.

Under the transboundary collaboration initiative between UWA, ICCN and RDB, management will lay emphasis on sharing and acting on intelligence information across borders. Informers will be Identified and deployed for information gathering about the movements of the illegal entrants and other illegal activities. With intelligence information acquired, it will be shared with other security agencies like police and UPDF. Security surveillance will be beefed up with more man-power engaged from other security agencies like police and UPDF. Management will work with Park authorities from Rwanda to ensure that the community on the Rwandan side are sensitized about the dangers of crossing through the park illegally.

Areas within the park suspected to be having explosives that were left behind during the war will be identified and mapped. Management will then reach out to the UPDF for assistance in detonating and defusing these explosives to make the park free of explosives.

A rescue plan will be developed for the park and will among others identify required abilities for a rescue team in terms of staff numbers and skills needed for a rescue team. Requisite staff will be recruited and trained in line with the rescue plan. The plan will in addition identify the needed equipment for the rescue team taking into account the terrain and vegetation of the area.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Intensify law enforcement and monitoring operations along illegal routes	WLE/S	SWIC	Year 1-10	1,215,195,720
Share and act on intelligence information across borders	WLE/S	SWIC	Year 1-10	654,000,000
Strengthen coordination and collaboration between security agencies and conservation agencies	WLE/S	SWIC	Year 1-10	60,000,000
Identify and map out areas suspected to harbor explosives	WLE/S	SWIC,WMR	Year 1-2	00
Work with relevant security agencies to diffuse the explosives	WLE/S	SWIC	Year 1-2	2,500,000
Form, train and equip rescue team:	SWIC	WLE/S, CAM, CCAM		
• Capacity needs assessment (human & Logistical)				00
• Recruit and train				50,000,000
• Procure the necessary equipment				15,600,000

3.2 Illegal activities

Output: Illegal activities reduced in the park

Issues and Rationale

Communities around the park illegally go into the park to kill animals for food and selling for money. They kill all kinds of animals especially buffalos and antelopes, which is a very big threat to the animals numbers and also threaten tourism activities. Over the years there have been increased levels of poaching as evidenced from the increasing snaring in figure below.

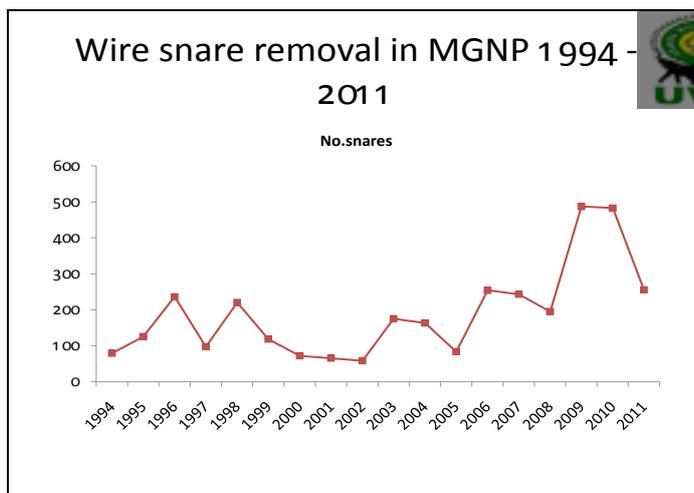
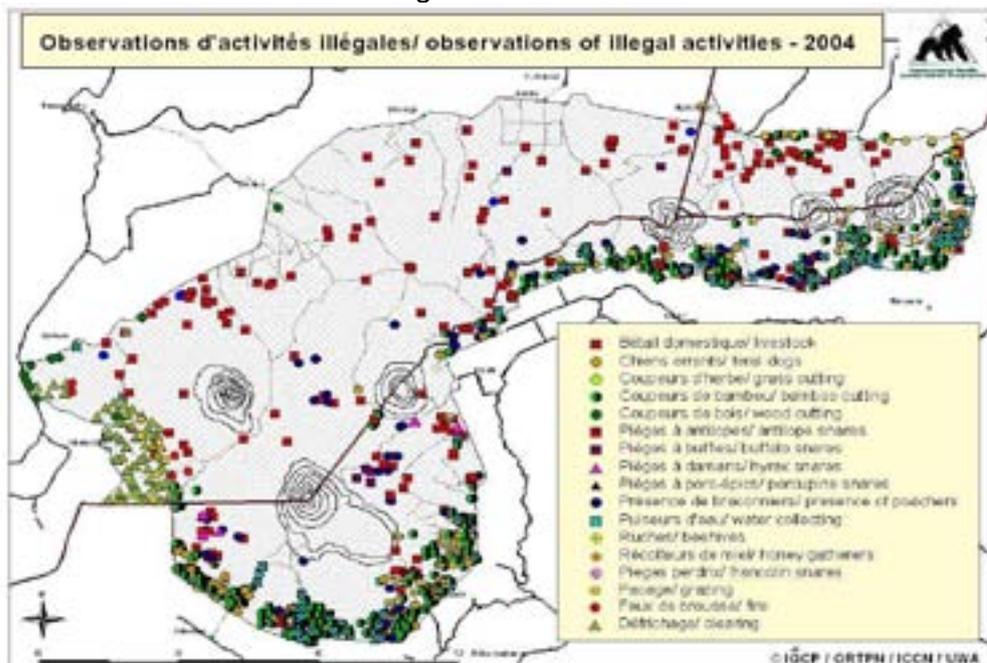


Figure 8: Graph showing Wire Snare removal in MGNP 1994-2011

Threats Distribution in the Virunga Massiff



Community members around the PA have very little land to manage other economic activities like cattle grazing. They resort to taking their livestock to the park for grazing. This interaction is a potential risk for zoonotic diseases exchange between wild and domestic animals and between animals and humans. The presence of livestock in the park interferes with the wildlife home ranges and limits their dispersal.

Community based tourism guides engage in illegal tourism activities by diverting tourists intended for the PA, they sometimes take the tourists to tourism destinations in the DRC which is insecure thereby putting visitors at risk. The private guides lure park staff to abet illegal tourism activities in the PA by helping them to take tourists into the park illegally.

Communities around MGNP cultivate potatoes, which is their major revenue income crop. During packaging of the potatoes, they use grass for covering the sack tops while transporting the produce to the market. With time grass stocks within community land have been depleted and the remaining option is to access grass from the national park illegally, affecting the vegetation cover of the park.

Community members illegally sneak into the park to collect resources such as bamboo, bean stakes, building poles without permission despite efforts to share resources through MOUs as per existing policy.

Illegal firewood collection has been a major issue in Mgahinga national park. There are very few sources of wood fuel for communities around the PA. The only major source of wood fuel to the people around the park is dead wood inside the park.

Management actions

Park management will redesign and intensify law enforcement patrols. Systemic and random deployments will be undertaken to include daily surveillance coupled with intelligence information gathering will guide law enforcement patrol deployments. Ambushes shall be employed for arrests and prosecution of illegal entrants.

UWA recently recruited and trained staff for the newly established intelligence unit for the entire organisation. This unit will undergo periodic training in order to receive credible and reliable information, an independent intelligence unit will be established to check all other activities and this shall lead to a result oriented deployment for effective and efficiency.

Incentives will be identified to individual surrendering poachers and for staff that arrest and recover a gun as a morale boost for higher or improved performance.

Currently signing MOUs Community Conservation staff take it upon themselves to agree with community benefitting from resources of the park without involving other staff like law

enforcement, who are responsible for enforcing compliance to the MOU. Drafting of MoUs for resource access will be developed jointly by a drafting team involving representatives from all departments other than community conservation. While the CC department spear heads the MOU formulation and signing with the benefitting communities, other departments will be involved so that every department understands the agreed position and are able to collectively monitor compliance.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Intensify law enforcement patrols	WLE/S	SWIC	Year 1-2	00
Form a viable network of informers	WLE/S	SWIC	Year 2	15,600,000
Create incentives for poacher arrests and gun confiscation	WLE/S	SWIC	Year 2	12,000,000

3.3 Boundary Management

Output : Park boundary secured

Issues and Rationale

One of the intervention measures put in place in the 1990’s to address the challenge of problem animals around the PA was building the buffalo wall along the park boundary. This also serves as a boundary marker where it was completed. The wall is 1.5 meters high along the park boundary that is not part of the international border.

However, the buffalo wall has not been foolproof. Periodically buffalos forcefully go out over the wall and this causes damage on the wall. In addition, communities entering illegally often cause damage to the wall and so does the livestock. Damages to the wall have increased costs for wall maintenance over the years.



Figure 9: Photograph showing the buffalo wall

The distance covered by the boundary between the park and the communities is 16km; the distance covered by the buffalo wall is 11km from Nyakagezi to Rukongi. This has left 5km from Rukongi to Rutare - Rwanda border not covered by the wall and this lets the buffalos to freely roam in and out of the park through this open area thus destroying community crops.

There are pockets of encroachment along the boundary (in all the parishes touching the park). Some areas of the park have small open areas between the buffalo wall and the pillars. Community members in some areas cultivate in this area leading to encroachment into the park.

Management actions

Erythrina trees will be planted between the pillars and the buffalo wall to strengthen the buffalo wall stones and stop stretches of encroachment in open areas identified between the buffalo wall and the pillars thereby creating a strong boundary line.

In order to secure the entire park boundary, the buffalo wall will be extended to cover the remaining 5-km section of the boundary that currently does not have the buffalo wall. Given the rampant breakages of the wall, a plan to have routine maintenance of the wall will be developed and implemented over the ten years of this plan.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Plant Erythrina trees along the entire park boundary in line with boundary pillars to make clear the real boundary and the buffalo wall.	WCC	SWIC, WLE/S	Year 2-3	640,000
Complete the remaining 5km section of the buffalo wall	WCC	SWIC, WLE/S	Year 3	50,000,000
Conduct routine buffalo wall maintenance	WCC	SWIC	Year 1-10	30,000,000

3.4 Fire management

Output: Incidences of wildfires minimized

Issues and Rational

Fires start abruptly in most cases started by illegal grazers, crude honey harvesters, garden preparing, malicious tendencies and sabotage. These fires burn hard due to very dry matter under the vegetation and wind.

Honey harvesting methods are still rudimentary and are often a cause of fire in the park. In 2009 wild fires started in Rwanda’s Volcano National Park and extended into Mgahinga before it was successfully put out by a joint operation consisting of other government agencies like the army. The fires often burn intensely due to dry ground matter and winds accelerating the fire spread.

Management actions

The process of developing the fire management plan will be completed and the plan implemented over the ten year period. This will identify prone areas to establish fire lines and breaks and maintain them, appropriate fire fighting equipment shall be procured, staff shall be identified and trained in fire fighting techniques and shall implement the fire management plan.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Develop and implement a fire management plan	SWIC	WRM, WCC, WLE/S	year 1	503,000,000
Explore the possibilities of developing a trans-boundary fire management plan	SWIC	WRM, WCC, WLE/S	year 1	2,000,000

3.5 Disease transmission

Output: Zoonotic diseases managed

Issues and Rationale

Zoonotic diseases are easily shared between animals and humans, when infected animals interface with each other or humans. Since livestock grazing is an issue in the park, this is another potential source for disease interactions between livestock, wildlife and humans. Just as is the case in Bwindi Impenetrable National Park, gorillas are closely related to humans hence a high risk of likely transmission of human-related diseases and vice versa

Management actions

With technical support from the newly created position of a resident vet in Bwindi National Park and a vet lab by the new Strategic Plan, management will periodically carry out wildlife disease surveillance and tests for disease control and management. Veterinary interventions will be accordingly designed to address any detected likely disease outbreaks before the actual disease breakout. However in cases of disease out breaks before detection, such outbreaks will be contained before they spread.

Awareness campaigns will be carried out among livestock owners through consultative meetings with livestock owners to guide them on how to manage their livestock and stop possible spread through contact of wildlife and livestock.

Investigations will be conducted on the possible diseases associated with Golden monkeys and recommendations from the investigations will accordingly be implemented.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Conduct regularly, disease surveillance activities	WRM	SWIC	Year 1-10	30,000,000
Manage disease outbreaks	WRM	SWIC	Year 1-10	30,000,000
Carry out awareness campaigns among livestock owners	WCC	WRM	Year 1-10	60,000,000
Investigate possible diseases associated with Golden monkeys and implement recommendations.	WRM	SWIC, CAM, CCAM	Year 2, 5, 10	30,000,000

PART 4: Community Conservation

Overall objective: To increase community support for conservation

4.1 Human-wildlife conflict

Output: Human –wildlife conflicts minimized by at least 50%.

Issues and Rationale

Human-wildlife conflicts resulting mainly from crop damage by wildlife remain a big challenge around MGNP. Although there have been efforts to effectively manage the park in partnership with the local surrounding communities, one of the biggest setbacks has been the animals that move out of the park to the community, destroying property and raiding people’s crops. These include buffaloes, bush bucks, duikers and porcupines. As a result this has created a frail relationship between the community and the park.

There is acute land shortage within Kisoro district due to high population pressure. The population density of Kisoro district is 356.9 per sq km (UBOS 2011). As a result communities cultivate the slopes of Mt. Mgahinga and Mt. Muhavura up to the boundary of the park. This increases the risk of crop raiding.

There is no compensation policy for crop damage and human injuries resulting from wildlife attacks. Communities feel that Government cares more about wild animals than people. These negative feelings sometimes drive communities to kill the raiding wildlife as revenge for their destroyed crops and other property.

Efforts have been put in place by UWA and conservation partners to try and address this problem and in this way a number of intervention measures have been applied. These include among others the buffalo wall that was established in 1994 with a small section of the wall along the park boundary from DRC- Rwanda border to act as a deterrent for buffaloes crossing out of the park. However, some parts of wall are weak and others are in-complete and need to be worked on.



Figure 10: Picture showing part of the buffalo wall

Scare shooting by rangers is another intervention used to scare off wild animals that raid people's crops. This intervention has its own short fall as problem animal raid gardens mostly at night and in most cases their presence is not realized. This leads to communities complain of lack of staff seriousness to promptly attend to their calls and would always wish the park staff patrol in their gardens the whole night. Guarding is the most used intervention around MGNP and is considered the successful. While guarding the communities use fire and banging of metal objects to scare away wild animals that raid crops.

Sometimes the communities do voluntary repair of broken parts of the wall. To this effect, matter communities have formed themselves into CBOs with aim of controlling problem animals plus saving and credit scheme. This shows the level of partnership that exists between the communities and park management

The buffalo wall has also helped in reducing other illegal activities like grazing of domestic animals in the park, encroachment and illegal resource of take by communities.

The only water source for the communities surrounding MGNP is in the swamps inside the protected area. The animals share water sources with human beings and in the process ended up destroying gravity water pipes of Kabiranyuma and Nyakagezi gravity water schemes.

Management actions

The buffalo wall will be extended to cover the remaining 2km section of the boundary that currently does not have the buffalo wall. Given the rampant breakages of the wall, a plan to have routine maintenance of the wall will be developed and implemented over the ten years of this plan

Repairing and maintenance of the entire buffalo wall stretch by enlarging it to 1.5m width from 1m width will be undertaken during the plan period. In addition planting of Erythrina tree spp and supporting the wall using gabions will ensure a strong problem animal control barrier.

In addition awareness to the communities about the behavior of problem animals will be undertaken throughout the life of this plan.

Management will undertake routine monitoring of the effectiveness of Problem Animal Control (PAC) interventions around the park.

Management will work with Kisoro District Local Government to design proper protection of the water sources especially the gravity flow schemes and encourage households to adopt rain water harvesting interventions.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Re-enforce the Buffalo wall at identified prone areas with suitable materials such as cement, gabions, planting	WCC	SWIC	Year 2	78,750,000

Activity	Resp	Others involved	Timing	Es.cost
Erythrina spp, etc.				
Engage stakeholders in problem animal monitoring, information sharing and problem solving	SWIC	CAM,CCC, NGO's	Year 1-10	50,000,000
Work with DLG to redesign the gravity water schemes in the park	SWIC	CCW,DWE	Year 5-7	19,200,000
Construct the remaining 2km to complete the entire boundary with a buffalo wall.	CCW	SWIC	Year 1-2	30,000,000
Lobby and facilitate integration of PAM issues into sub country and District development plans	SWIC	CAM, CCC, LG's	Year 3 rd - 10 th Year	12,500,000
Develop and implement problem animal monitoring systems and rapid response system	SWIC	WCC,CAM,DC,DEO's	1 st -10 th Year	250,000,000
Promote land use practices less susceptible to damage	WCC	CAM,CCC,DC,CDO, Agric.officers	Year 1-10	750,000,000

4.2 Revenue sharing

Output: *Equitable revenue sharing promoted among the target communities*

Issues and Rationale

The UWA revenue sharing policy is as a result of the legal provisions within the Uganda Wildlife Act of 2000. The Act requires that 20% of the total gate revenue collections are remitted to the respective Local Government where the PA falls. The fact that gorilla tracking was limited to 8 visitors per day, it was recommended in 2008 that \$5 per permit from gorilla tracking be given out to communities in the parishes around the park to supplement the limited 20% of gate entry for community initiated projects.

The objective of the RS program is to ensure strong partnership between protected areas management, local communities and local governments leading to sustainable management of resources in and around protected areas by enabling people living adjacent to protected areas obtain financial benefits derived from the existence of these areas that contribute to improvements in their welfare and help gain their support for protected areas conservation.

The local communities and local governments did not appreciate the revenue sharing guidelines due to mismanagement of the Gorilla levy and Revenue sharing projects. In most cases the communities from front line villages who bear direct impact from wildlife as a result of being near to the park did not benefit much from this program. Even the projects that were funded under RS program were poorly implemented.

The revised revenue sharing guidelines have been designed to address the gaps in the old guidelines. It's hoped that the new guidelines will decentralize decision-making and action to the lowest levels possible. The revised guidelines are meant to also reduce the levels of project approvals and maximize Revenue Sharing Fund efficiency, effectiveness and impact (with respect to RS Policy Goal & Objectives). With the new guidelines, the project proposals that will be selected shall be integrated into Sub County and District Development Plans to ensure implementation.

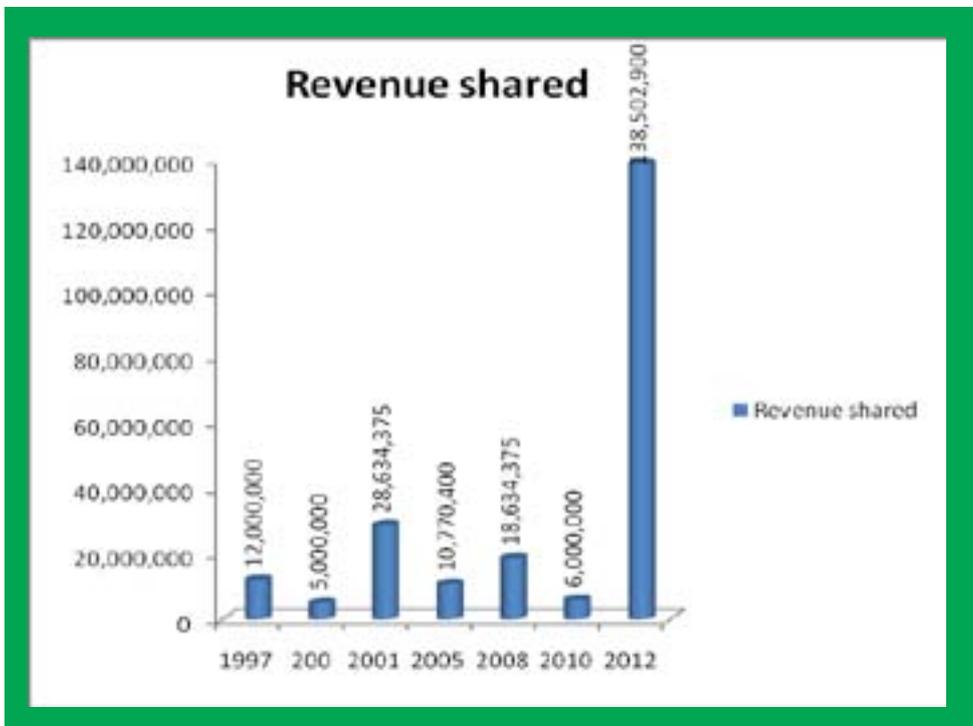


Figure 11: Graph showing revenue sharing trends in Mgahinga National Park.

The main challenge however is that the new guidelines have not been fully explained to the target beneficiaries of the revenue sharing funds.

Management actions

Sensitization meetings on new revenue sharing guidelines to frontline LCI villages, parish, and Sub County and district officials will be undertaken to ensure that all stakeholders are aware and the target communities can hold their leaders accountable.

In addition management will guide communities in proposal writing to ensure that projects of the affected communities get approved for funding and in turn ensure that frontline communities benefit from the RS program.

Management will take keen interest on how these funds are used by taking part in the monitoring and evaluation of revenue sharing project implementation.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Implement the new revenue sharing guidelines	CCW	SWIC,DCDO	Year 1-10	82,000,000
Make visible all the projects which have benefited from the Revenue sharing funds	CCW	SWIC,DCDO	Year 1-10	20,000,000
Organize reformed poachers to form CBOs with the strengths to benefit from revenue sharing funds as a special interest group.	CCW	CDO	Year 3	21,000,000

4.3 Resource use

Output: Improved management of resource off take from the park throughout the plan period.

Issues and Rational

In order to gain support from communities surrounding the park for the various park management programs, Mgahinga National Park has implemented the resource-use program (multiple use zone) since 1993. Under this program, communities are allowed to access some resources in the park through Memoranda of Understanding. Currently the resources being accessed include harvest of dry bamboo, bamboo rhizomes, medicinal plants, weaving materials, grass for Batwa community and access to areas for bee keeping in the park. It has also helped the development and strengthening of community institutions and, to some extent, provided real benefits to the resource users (Worah et al., 2000).

There is inadequate availability of resources outside the park as a result of high human population, which has resulted into high demand/pressure for park resources from the neighboring communities. Communities surrounding the park have special attachment to these resources for many years as a source of community livelihoods. The park management has signed six memoranda of understanding (MoUs) with the surrounding communities to enable them have regulated access of resources in the park.

Due to poor water retention of the ash volcanic soils, there is water scarcity in the community areas around the park especially during dry seasons (June-September). During this time park management allows communities access water in the park through acknowledgement letters from their local councils.

There are three bee keeping community groups who have placed bee hives inside the park under multiple resource use program. However, there is a risk of fire out breaks in the park due to inappropriate methods of honey harvesting (traditional methods of using fire to harvest honey).

Management actions

Management will work with the Kisoro District Local Government and other conservation NGOs to encourage and promote domestication of park resources like bamboo, medicinal plants etc on to community farms.

In addition, training communities in bamboo propagation and management techniques will be undertaken. Study visits to other areas will enable communities attain knowledge in bamboo propagation and management techniques.

In order to effectively implement the MoUs, awareness program for communities on resource use especially on the terms and conditions of the MoUs will be undertaken.

To address the potential risks of fire resulting from the traditional honey harvesting methods, management will support and train communities in honey harvesting techniques and acquire modern honey harvesting tools and gears.

Strengthening and involvement of resource use executive members in the monitoring of resource off take would help curb down illegal resource off take and involvement communities in the management of the park create a sense of ownership.

A participatory approach will be adopted while developing resource use monitoring tools and undertaking monitoring and evaluating resource off take. Management will liaise with the DLG to intensify on water harvesting campaigns during the rainy seasons.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Domesticate park resources (wild plants) onto community farms	CCW	WMR,DAO	Year 3-4	12,000,000
Train communities on bamboo propagation	CCW	SWIC	Year 1&5	24,000,000
Design and implement awareness programs on resource use	CCW	SWIC	Year1-10	283,000,000
Train communities in honey harvesting and support communities to acquire appropriate tools and harvesting gears	CCW	SWIC	Year 1&5	27,000,000
Enforce MoUs compliance	WLE/S	SWIC	Year 1	7,200,000
Develop participatory monitoring tool to monitor resource off take.	CCW	WRM,SWIC ,CDO	Year 2	11,000,000
Liaise with DLG to intensify water harvesting campaigns during the rainy season.	CCW	CDO	Year 1-5	20,000,000

4.4 Land use

Output: Reduced pressure on park resources throughout the plan period

Issues and Rationale

Kisoro district with a total area of about 729.2 sq km the park inclusive is one of areas with high land shortage. This resulted into communities encroaching MGNP until 1991 when people were relocated outside the park and about 20% of the parkland area turned into farm land. This was because of the land shortage around this area.

The population density in Kisoro is around 356.9 people per square km as per the population census of 2002. The population doubles after every 22 years and at this rate the population many have an advance impact on the limited natural resources. Some strategies have to be adopted so as to check on the ever increasing population growth.

The communities living around these areas rely mostly on crop production as their major economic activity. However, there is heavy use of chemicals and fertilizers so as to realize high crop yields and this has negative effects on the environment. Crops like wheat, maize and Irish potatoes are grown up to the edge of the park, attracting wild animals to crop raid. So this type of incompatible land use practices around the park needs to be improved in order to sustainably conserve the soils and environment.

Management actions

The park will work with DLG especially lands and agricultural departments to promote suitable land management practices for better soil conservation and those that are compatible to conservation.

In addition, management will work with Kisoro DLG and NGOs organise community meetings to address issue of rapid population growth in the area by encouraging the communities to embrace family planning methods.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Participate in Government and non Government organisations programs aimed at encouraging family planning.	CCW	SWIC,CDO,NGO's, Church, Health Educators	Year 1-10	40,000,000
Participate in the DLG programs aimed at promoting conservation-friendly land management practices.	CCW	SWIC,DAO,DEO, DFO	Year 1 -10	40,000,000

4.5 Awareness

Output: Community attitude towards conservation improved throughout the plan period

Issues and Rationale

The objectives of the conservation education program have been largely achieved during the period of the last management plan. Large sections of the community now know the environmental and economic values of the PAs and forests and the roles of the different projects and institutions working in and around the park. Communities appreciate the use of locally recorded videos and local drama groups in conservation education.

However there is still lack of appreciation of the park values and the need for resource conservation among some sections of the community and the program needs strengthening. One of the reasons why people fail to appreciate the park value is the fact that there are enormous costs associated with them especially those associated with crop damage caused by buffalo and sometimes the highly protected gorillas. Communities have at times felt that the government values wild animals more than people.

There are inadequate conservation educational materials in form of leaf lets, brochures, post cards, wildlife video tapes, audio-visual equipment, which presents a challenge in disseminating conservation information to various community levels.

Unfortunately the high level of illiteracy presents yet another big challenge to conservation as most of the population of the people around the park do not know how to either read or write. This is due to low levels of education as most people do not appreciate taking their children to school, so as to enable them get alternative employment opportunities in various sectors. In addition education for the young people enables them to appreciate and understanding conservation programs.

Rwerere community enterprise center is a community project which was funded by GVTC. This project was initiated by UWA and DLG to offer various services to visitors like cultural dances, drama, hand craft display, internet services and restaurant and is meant to benefit the communities. However, the communities were not involved in the planning for this great idea. This calls for serious community awareness about the importance of the project as a benefit to the communities around the park.

Most of the communities living around the park have poor sanitation in their homes, causing a potential risk of outbreak of contagious diseases to human beings, and to both domestic and wild animals. Some of the communities are not aware of the park programs due to inadequate sensitization.

Management actions

Management will intensify awareness campaigns about the park programs through meetings, workshops, drama and music, radio talk shows and conservation materials. This will enable the community appreciate conservation values which in turn will lead to better understanding between the communities and park.

Audio-visual equipments will be acquired and education materials like leaf lets brochures developed to help in community awareness programs. The media, drama and conservation songs shall be used to disseminate conservation messages

The community and school groups will be encouraged to visit the park for various conservation activities. This will enable these groups to gained more knowledge and experience in conservation related issues. There is need to develop conservation education manual.

Management together with the District of Kisoro will review and implement the business plan for the Rwerere Community Enterprise Centre.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Develop and disseminate conservation awareness messages to relevant audiences	CCW	SWIC,CDO,BMCT	Year 1-10	240,000,000
Procure audio-visual equipment for community awareness programs	SWIC	CCW	Year 5	00
Organize tours for communities to visit the park	CCW	CDO,WCU	Year 3	10,000,000

4.6 Stakeholder collaboration

Output: Strengthened stakeholder collaboration and coordination throughout the plan period

Issues and Rationale

Stakeholders play a big role in all the park programs and more so help a lot in community mobilization. MGNP has a number of stake holders that include the conservation partners, District LG, Sub county LG, the Security that include both the army and police and NGOs/CBOs that operate around Kisoro District. However, there is still need to strengthen stakeholder collaboration and coordination during implementation of park programs. There is need to improve on community and stakeholder awareness on roles in conservation and tourism.

The state of (Kisoro-Ntebeko and Kisoro-Muhavura) roads leading to the park is in a very sorry state. Neither the park management nor the district has enough funds to do routine repairs and maintenance of these roads. The communities and some of the local leaders think the park management has refused to repair the roads. The two roads are considered tourism roads and it's the mandate of Uganda National Roads Authority (UNRA) to repair and maintenance them but has taken quite a bit long time without doing it. The linkage between the park and various authorities responsible for access road maintenance has been very poor and there is need to bridge that gap.

The judiciary, Directorate of Public Prosecution and Police has not been valuing conservation and whenever suspects are taken to court due to wildlife related offences, they are either released or given lighter sentences. Such sentences are not deterrent hence wildlife crimes are instead exacerbated. This is because the judiciary, directorate of public prosecution and police do not appreciate conservation and lack knowledge about the role the wildlife sector plays in the overall national economic development agenda of this country.

Many leaders around the park have been showing interest in gorilla tracking, but are not aware of rules for gorilla tracking and gorilla ticket booking. The local leaders need information about the opportunity for them to track gorillas during off peak seasons.

UWA does product development such as bird watching, mountain climbing, nature walks, gorilla tracking, and golden monkey tracking among others. It doesn't take a leading role in final packaging. Packaging is left to the tour operators under their umbrella organization (AUTO) who are the intermediaries. The challenge however is that most locally registered tour operators are not well coordinated while some are even registered at all. Ethically tour operators operating within Kisoro do not understand what they are selling; many of them cannot afford to pay for gorilla permits. Most of these tour operators in many instances have miss directed tourists to other destinations not

intended to, for example visitor who would be going to Muhavura have ended up going to Nkuringo or Ntebeko. In some instances, the operators have provided wrong information to tourists especially regarding the different tourism activities in the park.

There have been cases of misconduct by the private tour guides which include among others illegal tracking, permits and receipt forgeries, intentional miss-guiding visitors to lodges that are not visitor friendly and tourists end up losing their money or extorted.

Management actions

Management will hold consultative meetings with the District and sub counties neighbouring the park to harmonize the plans for implementation of activities. The park shall periodically give the District Indicative Planning Figures for statutory funds to the Districts like Revenue Sharing to enable integrated planning for the Districts.

Special awareness meetings for police, judiciary, customs and Directorate of public prosecution will be organised to create appreciation for conservation among the sister partners.

Management will conduct special meetings with political leaders around Kisoro to share conservation challenges and achievement aimed at increasing their knowledge and appreciation of the values of conservation.

The political leaders have a lot of trust and influence among the communities. The communities always believe in their leaders. Special meetings to address conservation issues with political leaders shall be held at all levels of political interface, this will reduce interference and encourage politicians to carry out awareness campaigns among the community surrounding the park.

In order to help tour operators understand the products they are selling management will work closely with AUTO to organize FAM trips for local tour operators, in addition to training or organizing sales blitz's in specific places. However sales blitz becomes only effective when the operators are organized and willing to learn.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Participate in District Planning meetings to harmonize Park plans and District plans	SWIC	CAM	Year 1-10	10,000,000
Organize and conduct special meetings for police, judiciary, customs and Directorate of public prosecution.	SWIC	WLE/S,CCW,CAM	Year 1-10	10,000,000
Organize and conduct special meetings for political leaders.	SWIC	CAM,CCW,ED,CCAM	Year 1-10	5,400,000
Involve political leaders in community sensitization and awareness	SWIC	CCW, CAM,CDO	Year 1-10	12,000,000

PART 5: Research and Monitoring

Program objective: To provide accurate, relevant and timely information for resource management

5.1 Research

Output: Management decisions informed by researched information

Issues and Rationale

Mgahinga Gorilla National Park, located in the remote south western corner of Uganda has a rich biodiversity especially given its congruence with the entire Virunga Massif landscape. However because of the limited research, this richness is scantily known. The park has no research facilities and equipments. Even if the park was to attract researchers, there are no accommodation facilities. As a result, the park has over the years attracted very few researchers and therefore limited scientific information on which to base decisions is available.

Even with the limited available data, its storage and management is done. Data derived from the Ranger Based Data Collection (RBDC) tool is not analyzed by the park because of limited skills amongst the staff who collect such data. The Management Information System (MIST) program which is used to analyze the RBDC data is not user friendly to many of the staff.

Most habituated gorilla families have been treated for cough, cold, and other breathing disorders time and again. Interventions are being made on individual gorillas on a case by case basis, and no research is being done on possible causes of these diseases. The park has not initiated any research into the possible causes of such diseases and has mostly relied on research being conducted by partners namely Mountain Gorilla Veterinary Project, Conservation Through Public Health, and International Gorilla Conservation Project. Relying entirely on others is not sustainable in the long term just in case these partners are not there in future.

Research efforts that have been made have been skewed on great apes neglecting other wildlife like buffaloes, elephants and human beings. Most data on other wildlife is based on opportunistic sightings and there is no census ever carried out to determine the viability and population of other species apart from the gorilla.

In the park areas formerly inhabited by Man, exotic tree species were left inside the park when the forest was declared a national park in 1991, and some of them are slowly suppressing and replacing the indigenous tree species. These exotics include Eucalyptus, avocados, Cyprus, Pines, Grevaria, different Datura species, and other ornamental compound trees. This has interfered with the habitat for wildlife, affected the foraging range of animals as some of these trees are non palatable, and highly prone to fire inside the park especially pines. It is therefore important to undertake research into the best ways of managing the spread of all invasive species in the park.

Nyakagezi gorilla family is the only habituated group in Mgahinga Gorilla National Park found in Kisoro District, south western Uganda. With 9 members, this group has the biggest home range within the landscape. The group moves from mountain ranges of Sabinyo to Muhavura and crosses the border up to Volcanoes National Park in Rwanda. This home range is unusual for a habituated gorilla group and research is needed to ascertain why this particular group covers such a wide home range

Like the Mountain Gorillas, golden monkeys are found only in Uganda, Congo and Rwanda in the whole world. In Uganda, golden monkeys are found only in the foot slopes of Mgahinga National Park and they are estimated to be between 600-800 individuals. UWA in its endeavor to boost tourism in Mgahinga Gorilla National park, decided to habituate one family for tourism and another one for research. Golden monkey tourism is steadily on the rise but less research has been carried out on behavior of golden monkeys and a possible impact as a result of exposing them to tourism.

Large quantities of data is collected using the Ranger Based Data Collection tools and is just stored. Little effort is made to analyze and disseminate the results for decision making. Where the software is available, it is in most cases not compatible with some data sets in analysis in addition to inadequate capacity of staff to use the software to analyze their data sets. Constant data quality monitoring and refresher courses are needed.

Uganda Wildlife Authority in her effort to involve the communities in forest resources management has allowed sustainable harvesting of some resources through developing a memorandum of understanding. These resources are part of the daily livelihood for community members and they include medicinal plants, firewood, crafts materials, and honey. However there is no information/research carried out to determine the impact of harvesting some of these resources. In addition there is no established mechanism to monitor resource off take to ensure sustainability. Currently, wildlife disease surveillance in the park is being carried out with the help of Gorilla Doctors and Conservation Through Public Health (CTPH) which are NGOs working within the region. Diseases being monitored are human communicable diseases that can be transferred to gorillas and other species by human beings. They include Tuberculosis and other respiratory infections. The on-going surveillance is however targeting only gorillas. There is no agreed upon strategy/protocol to guide surveillance operations that are being undertaken by the different partners. Each of the players (UWA, IGCP, CTPH, and MVGP) follows her own time table with very limited coordination. Monitoring wildlife diseases is very important for early detection of the likely out breaks to ensure immediate response.

Most areas surrounding Mgahinga park are becoming semi urban with developments like hotels, hospitals, bars, schools etc emerging. These areas have also attracted mass population who come to enjoy these amenities and are therefore generating mass wastes. The unfortunate part is that few of these developments have clear waste collection and disposal plans. Facilities like incinerators, waste pits, etc are not on the ground. Developers have also not yet appreciated the danger of wastes on biodiversity and therefore don't mind on littering even inside the forest.

5.2 *The Institute of Tropical Forest Conservation*

The Institute of Tropical Forest Conservation (ITFC) was established in 1991 as a post-graduate research institute of Mbarara University of Science and Technology with a mission to support and undertake research, monitoring and capacity building of Ugandans and others to bolster conservation understanding and practice in Bwindi and Mgahinga National parks and the Albertine rift region. For the past 23 years, ITFC has a track record of providing park management support and guidance, as well as of capacity building, in Uganda. Over 70 post-graduate students have carried out their post-graduate studies (masters and PhD) at ITFC and are now amongst Uganda's leading conservationists (including working in Ugandan national park) and scholars at several universities.

5.2.1 *Collaboration with ITFC on Research and Monitoring*

ITFC has carried out a wide range of biological and socioeconomic research and monitoring, aimed at addressing the key conservation challenges in Mgahinga. In particular, ITFC has closely worked with Mgahinga park management over the years to ensure that research results and recommendations are translated into management decisions and actions. This has been through ensuring that conservation managers have access to, and make use of, reliable research and monitoring information on changes in the status of conservation targets and threats, and on the effectiveness of different conservation strategies.

Some of these research results that have been used by park management include; mountain gorilla census (done every 5 years), distribution of exotic trees and their impacts on regeneration, distribution of key resources, and delineation of 'Multiple Use Zones', forest gap sizes, regeneration, forest fires incidences and impact monitoring. All these research findings have been used by Mgahinga park management to improve on the conservation of the national park.

Presently, ITFC is working on several projects to help improve on the conservation of Mgahinga national park such as the survey of hydrological systems in the Great Virunga Landscape. Research results from these projects will be used by park management and in future incorporated in the Mgahinga park management plans.

In conclusion, although ITFC is research institution of Mbarara University of Science and Technology, experience has shown that most of the research carried out at ITFC has been more of applied research (to address park management questions) than academic research.

Management actions

Management in Mgahinga together with other researchers and NGO's will identify research priority areas that can help solve management challenges and post them on the website as a way of sharing information with the wider public and attract interest. Deliberate efforts will be made to attract researchers from research institutions to undertake research on identified challenges.

Studies to determine the suitable methods of exotic removal will be undertaken and recommendations of such studies implemented in the course of plan implementation.

A specific study to assess the habitat use/preference by key wildlife species especially Nyakagezi gorilla group will be undertaken in order to ascertain the reasons for ranging characteristics. Research directed at golden monkeys will be conducted in order to know more about their behaviour and ecology. In addition the impacts of tourism on the Golden Monkeys will be assessed.

Periodic population census of golden monkeys, buffalos and elephants will be undertaken. In addition a bird inventory will be carried out to determine the avian diversity in the park. After every five years, total counts for key species will be undertaken. Results of these counts will help to determine wildlife population trends of park and if there are any active management interventions that may be required in case the trends turn out negative.

Research on flora and fauna will be conducted to find out sustainable levels for its utilisation before given out for harvesting.

Waste management will be regularly monitored. Appropriate waste bins, collecting and disposing off of degradable waste in waste pits, and sorting out and managing non-biodegradable waste will be undertaken. An incinerator will also be built to manage wastes in and around the park.

The use of stealth/sensor cameras for capturing illegal activities and monitoring nocturnal species will be adopted and implemented.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Identify research priorities and post them on the website	WRM	SWIC, CAM, ITFC	Year 1-10	00
Eradicate exotic trees from the park	WRM	SWIC	Year 1-3	14,400,000
Conduct a study to assess habitat use/preference by key wildlife species especially Mountain Gorilla (Nyakagezi group) and Golden Monkeys	WRM	SWIC, CAM, CCAM	Year 2-3	50,000,000
Conduct periodic population census of Golden Monkeys, Buffalos and bird inventory.	WRM	SWIC, CAM, CCAM, ED	Year 2, 4 6, 8, 10	750,000,000
Commission socio-economic studies around the park	SWIC	WRM, CCW, CAM, CCAM, DCDO	Year 4-8	50,000,000
Conduct a study on the impacts of tourism on the Golden Monkeys	SWIC	CAM, WT, CCAM, ED, WRM, ITFC	Year 4-8	50,000,000
Conduct sustainability studies on resource off take	SWIC	CCW, WRM, ITFC, CCAM, CAM	Year 3-6	50,000,000
Procure stealth/sensor cameras for capturing illegal activities and monitoring nocturnal species	SWIC	CAM, WRM, CCAM	Year 1- 10	6,000,000
Manage waste inside the Park: <ul style="list-style-type: none"> • Procure and place 	WRM	SWIC, WT, CCW	Year 1-10	6,000,000

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<p>appropriately waste bins</p> <ul style="list-style-type: none"> • Collect and dispose of degradable waste in waste pits • Sort and manage non-biodegradable waste 				36,000,000
<p>Monitor the impact of tourism on park resources:</p> <ul style="list-style-type: none"> • Develop monitoring indicators • Establish baseline data • Determine carrying capacity of the park for tourism 	WRM	WT, SWIC, MRU	Year 2-4	50,000,000
<p>Analyze all the research done and implement viable recommendations</p>	EMRC	WRM	Year 2	10,000,000

PART 6: Regional collaboration

Program Objective: To ensure wildlife resources that cross international borders are effectively protected.

Output: Collaboration with Virunga and Volcanoes National Parks strengthened

Issues and Rationale

The three protected areas of Mgahinga Gorilla National Park in Uganda, Volcanoes National Park in Rwanda and Virunga National park in DRC lie adjacent to each other and form one continuous ecosystem often referred to as the Virunga Massif. Wildlife therefore freely moves across border into the DRC, Rwanda and Uganda. However there are challenges associated especially in areas that are used for rebellion, there is risk of losing the wildlife. Cross border illegal activities like trafficking of baby gorillas is a challenge.

These challenges call for collaboration among the three national park management teams and at a higher level, the protected area authorities responsible for managing wildlife in their respective countries. So far efforts have been made to achieve this. A number of MoUs by the three agencies (UWA, ICCN and RDB) have been signed to guide the collaboration. A regional transboundary strategic plan was developed as a framework to guide this collaboration. Arising from the desire to fund some activities under the strategic Plan, the Dutch Government through their Embassy in Kigali committed funds to support community related enterprises to up lift the well being of communities surrounding the protected areas within the landscape. However despite these achievements, there are still challenges. The collaboration framework between the three wildlife agencies is not yet legalized by the respective governments.

Inadequate sharing of information on the trans-boundary Gorilla groups: Nyakagezi Gorilla group is the prominent trans- boundary gorilla group. The group crosses to Rwanda and DRC, but takes longer time in Rwanda. Limited or no information about this Gorilla group from Rwanda is shared. Uganda Wildlife Authority has always lost revenue, whenever Nyakagezi Gorilla group crosses to either Rwanda or DRC.

Insecurity stemming from the rebellion in the DRC has caused a threat to conservation activities in the neighbouring countries and putting the lives of staff working in these protected areas and that of wildlife at risk.

Management actions

Create regional linkage with security agencies over security issues: Management will carry out consultative security meetings between the regional security agencies around the virunga massif.

Collaboration mechanisms will be established with immigration and customs officials at the Bunagana and Cyanika border posts and will help address the challenge of cross border trafficking of wildlife and wildlife products. Management will work closely with park managers in Volcanoes and Virunga National Parks to develop and implement a transboundary fire management plan.

The problem-animal management strategy shall be completed and implemented to resolve the transboundary crop raiding issues in the region. There shall be maintenance of the already existing intervention efforts like strengthening the buffalo wall which is being implemented around all the three parks in the region.

Management will work closely with Virunga and Volcanoes National Park to control the use of illegal routes through the park. Whenever Nyakagezi Gorilla group crosses into either the DRC or Rwanda, it will closely be monitored periodically by staff of MGNP in collaboration with staff from Volcanoes and Virunga national parks to assess the condition of the group.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Conduct a trans-boundary regional study to assess habitat use/preference by key wildlife species especially Mountain Gorilla (Nyakagezi group)	CAM	CCAM, SWIC, ED, MRU, WRM	Year 2-4	50,000,000
Create regional linkage with security agencies over security issues	CAM	WLE/S, RDB, ICCN,	Year 1-10	40,000,000
Work with Virunga and Volcanoe National Park to develop and implement a Trans-boundary fire management plan	CAM	SWIC, WRM, WLE, ICCN, RDB, PU	Year 1-4	8,000,000
Develop and implement a regional/trans-boundary problem animal management strategy.	CAM	SWIC, ICCN, RDB, NGOs	Year1-3	8,000,000
Work with Virunga and Volcanoes National Park to control the use of illegal routes through the Park	SWIC	CAM, WLE/S, RDB	Year 1-4	4,000,000
Monitor Nyakagezi Gorilla group	SWIC	CAM, WT, MRW	Year 1-10	420,000,000

PART 7: Park Operations

Overall objective: To improve efficiency and effectiveness of park management

7.1 Human and logistical capacity

Output: Improved staff performance

Issues and Rationale

Both human and logistical capacity is crucial for better management of the MGNP. The current staffing levels are inadequate to meet the current management challenges. There are staffing gaps in all the departments. In addition, the existing staff lack certain practical skills in performing their duties. The general organizational desire of recruiting staff with all the necessary skills is not attainable since the graduates from the higher institutions of learning lack practical skills. The table below summarizes the manpower requirement for the park.

Outpost	Law enforcement including SWIFT			Tourism			Research			Community conservation			Administration		
	Current	Required	Total	Current	Required	Total	Current	Required	Total	Current	Required	Total	Curr.	Req	
Ntebeko PA Hqt	27	10	37	9	4	13	1	1	2	2	2	4	6	1	63
Muhabura	4	6	10	5	1	6	0	0	0	0	0	0	0	1	17
Nyakagezi	7	5	12	0	0	0	0	0	0	0	0	0	0	0	12
Mulemule	8	4	12	0	0	0	0	0	0	0	0	0	0	0	12
															104

Figure 12: Table showing staffing levels

Like many other national parks in the country, MGNP is remotely located and most staff live far away from their families making them vulnerable to HIV/AIDS.

The park has limited equipment like vehicles and computers. At moment it has only one pick-up and one motorcycle which makes it difficult to implement activities concurrently. The offices are not connected to the HEP grid and rely on a generator to run the office equipment.

MGNP has had the challenge of lack of staff accommodation. Even during the World Bank Project (PAMSU) that established staff accommodation and office infrastructure in some protected area, MGNP was not prioritized for this infrastructure development. The following table summarizes the accommodation requirement for MGNP,

Out post	Existing	Required
Ntebeko	<ul style="list-style-type: none"> Two house units for four senior staff and Offices located outside the park 	<ul style="list-style-type: none"> One office block of standard UWA design inside the park including water harvesting facilities
		<ul style="list-style-type: none"> Five standard units for senior staff at the current office site (renovate two existing ones and construct three new ones) including water harvesting facilities Five of twelve-unit blocks including water harvesting facilities
Muhabura	<ul style="list-style-type: none"> One wooden block consisting of three units, reception house and one unipot 	<ul style="list-style-type: none"> Two blocks consisting of 10 units each including water harvesting facilities
Nyakagezi	<ul style="list-style-type: none"> One wooden block consisting of three units, and one unipot 	<ul style="list-style-type: none"> One block consisting of 12 units including water harvesting facilities
Mulemule	<ul style="list-style-type: none"> One wooden block consisting of four units 	<ul style="list-style-type: none"> One block consisting of 12 units including water harvesting facilities

Figure 13: Table showing accommodation requirements

Management actions

Over the next ten years, management will recruit though in a phased manner requisite staff and give them the necessary training. For those already in service, refresher trainings will be organised and exposure visits conducted for them. Staff will then be provided with the necessary equipment to enable them do their work professionally and effectively.

With support from the head office, management will lobby Rural Electrification Agency to extend power to the park headquarters. This will reduce on the heavy expenditure on generator fuel and servicing costs.

Manage will collaborate with ministry of health officials to carry out HIV awareness campaigns among staff in order to address the HIV/AIDS threat to staff.

Staff accommodation and offices will be constructed and existing ones renovated in accordance to the summary table of infrastructure requirements.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Conduct refresher trainings and exchange visits to other PAs and countries for staff	SWIC	CAM,HRM,CCAM,PU	Year 1-10	250,000,000
Lobby Rural Electrification Agency to extend power to the park headquarters	SWIC	CAM,PU,CCAM,ED	Year 2	2,000,000
Procure two vehicles and four motorcycles	SWIC	CAM,PRM,CCAM,ED	Year 2	240,000,000
Identify and procure adequate and appropriate field equipment including field cameras	SWIC	CAM,PRM,CCAM,ED	Year 1-10	50,000,000
Carryout HIV awareness campaigns among staff	SWIC	CCW,HRM	Year 1-10	8,000,000
Construct/renovate staff accommodation and offices as per the table of requirements provided in this plan	SWIC	CAM, PRM,	Year 1-3	1,650,000,000
Recruit additional staff	SWIC	CAM, HRM	Year 1-2	1,000,000

7.2 Financing for Planned activities (plan implementation)

Output: Adequate funding secured for implementation of planned activities

Issues and Rational

Financing conservation in the third world has continued to pose a major challenge world over and MGNP is not an exception. Considering that conservation becomes irrelevant to the populace unless it can be able to translate into tangible benefits, it is imperative for MGNP to raise funds for its long term survival and relevancy.

Management actions

Following the funding challenges, it becomes necessary to identify various funding sources to make MGNP flourish. The supporting NGOs will continue to support conservation in this area and therefore it is incumbent upon management to identify areas where proposals should be written for support both by national NGOs and the regional ones. BMCT annually contributes towards MGNP conservation. However, during the economic crunch, the trust fund was incapacitated for about 2 years and money was not given. Now that the trust fund has regained its financial health, this fund should annually be requested for through proposals to the BMCT to increase MGNP financial resource base.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Work with potential funding agencies to identify areas within the plan for funding	SWIC	CAM, DFA, CCAM,ED	Year 1-10	20.000.000
Write and market funding proposals for key planned activities	SWIC	CAM, DFA, CCAM, ED	Year 1-10	20.000.000
Lobby Central Government to fund capital investment activities related to conservation	ED	CCAM, SWIC, DFA, CAM	Year 1-10	1.000.000

PART 8: Climate Change

Climate change is real and has far-reaching consequences on ecosystems and eco-services. Climate change can have significant impacts on existing and potential development activities by affecting the bio-productive system, which forms the basis of socio-economic organization. Warming temperatures are projected to cause more frequent and more intense extreme weather events, such as heavy rain storms, flooding, fires, hurricanes, tropical storms and El Niño events (IPCC, 2001). Like any other LDCs, Uganda is Vulnerable to effects of climate Change (Uganda NAPA, 2007).

In general, climate change will affect the forest conditions (area, health and vitality and biodiversity), allowing increases in growth rates in some areas while endangering the survival of species and forest communities in others. Provision of forest ecosystem services and goods will be altered by these changes, posing a number of new challenges to forest managers. In MGNP, these challenges are already being experienced as explained below and the objective to guide MGNP management in dealing with these challenges is given below.

Overall objective: To minimize negative impacts of climate change on the wildlife resources

Output: Negative impacts of climate change on wildlife resources mitigated

Issues and Rationale

Climate change is real and already negatively impacting on the MGNP ecosystem. Major observed negative impacts over time include;

1. Increased malaria incidences in Kisoro and Ntebeko in particular as a result of invasion by mosquitoes due to Temperature rise.
2. Shorter periods of seasonal Ntebeko river flow from the park as compared to some years back when the river could seasonally flow for a long time.
3. Shrinking of wetlands in the park such as Kabiranyuma, Rugezi and Nturo mash land and wetlands on community land such as those in Nyagakenke village
4. Change of vegetation type from alpine forest around the base of Mt Muhara to savanna eco system characteristics.
5. Change in rainfall patterns
6. Frequent movement of Gorillas (Nyakagezi group) to neighbouring countries in such for better habitats

Management actions

When it comes to mitigation, strategies can be grouped into two categories: technological solutions or changes in economic structure, societal organization, or individual behaviour (Swart et al. 2003).

From the perspective of natural resources conservation, mitigation activities include reducing deforestation and forest degradation, increasing afforestation and reforestation, management interventions to maintain or increase forest carbon density, increasing carbon stocks in wood products and enhancing fuel substitution. Mitigation activities targeted at natural resources conservation generally serve the dual purposes of reducing greenhouse (GHG) emissions from anthropogenic sources and enhancing carbon “sink”. Based on the issues identified, the following activities as detailed below shall be implemented.

With global climate change awareness going on there is need to show the entire world how MGNP management is contributing to the global efforts of stabilizing and reducing green house gas emissions. This requires identification and implementation of clean environment projects both outside and inside the park. Bearing in mind that financial resources are scarce, there will be innovations including fundraising efforts through the initiation of Climate Change Mitigation and Adaptation Fund (CMAF-MGNP) to supplement seed money for such projects contributed by Uganda Wildlife Authority. The contribution to the fund shall be voluntary by conservation-minded individuals, companies, NGOs, Clubs, tourists and Government. MGNP Management will market this fundraising effort through various media to attract awareness and concern. It should be noted that this voluntary fund does not replace the payment for ecosystem services scheme.

Project proposals will be developed and marketed for support to implement climate change mitigation activities and climate change research within and outside the park. MGNP management will identify suitable incentive schemes for those members within the community who may be role models in conservation to benefit from their efforts.

It has been observed over time that polyethylene bags within the park are mainly brought by park staff and other stakeholders having activities within the boundaries of the park. These polyethylene bags cause negative impacts to the ecosystem and their use should be controlled. Special by-laws will be developed in a consultative way to hinder the use of such bags inside the park.

Safe water is key to life and Kisoro district is one of the Districts in South-western Uganda that does not have enough safe water coverage compared to its dense population. The current extent of the water gravity scheme from the park is not powerful enough to serve other communities. Working with the district local government, the Kabiranyuma gravity water scheme will be extended to other communities.

The weather station installed in the park is important for capturing climate information. There is need to regularly collect, analyze and disseminate climate information to use in decision making. This information will again be used to lobby for support to use wind energy in conservation activities. Feasibility studies shall be done to determine the viability of starting a wind related project for energy generation.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Establish a voluntary climate change mitigation and adaptation fund (CMAF-MGNP).	SWIC	CAM, ED, DFA	4 th year	5,000,000
Lobby for support to implement climate change related mitigation measures.	SWIC	ED, CAM	1 st -10 th year	10,000,000
Initiate and support climate change related research within and outside the park.	WMR	CAM,EMRC, ITFC	1 st -10 th Year	50,000,000
Initiate conservation incentives other than revenue sharing, to the neighboring communities.	SWIC	CAM, ED,PU, CCC, CAO	3 rd -5 th year	30,000,000
Develop special by-laws to control the use and disposal of polythene bags (Buvera).	WMR	WLE, LU	3 rd -4 th year	10,000,000
Work with the DLG and other partners to increase community access to safe water (rain water harvesting, extending Kabiranyuma gravity water scheme to other communities.	WCC	CAM, CCC, CDO	1 st -10 th year	60,000,000
Lobby for support to carryout feasibility studies, tap and use clean energy from strong winds in MGNP.	CAM	SWIC, ED	5 th -10 th year	40,000,000
Regularly, collect, analyze, and disseminate weather information to decision makers.	WMR	EMRC, SWIC, ITFC	1 st -10 th Year	6,000,000

PART 9: Tourism Program

Overall tourism objective: To sustainably generate income for conservation and livelihood improvement.

9.1 Tourism Infrastructure development

Output: Adequate tourism infrastructure developed

Tourism is Uganda's number one foreign exchange earner and unlike other countries, tourism in Uganda is nature based with most tourists coming to the country to visit the national parks. However despite this, the infrastructure in the tourism areas is poorly developed.

Issues and Rationale

Mgahinga National park is accessed by the 14km road that stretches from Kisoro to Ntebeko and a 5km road from Kabindi to Muhavura. The most popular tourism activity in the park has been gorilla tracking. However, in an effort to diversify the attractions in the park and considering the erratic trans-boundary movement of the only habituated gorilla group (Nyakagezi), Mgahinga introduced other activities which include nature walks, birding, cultural trails and climbing of the three volcanoes of Mt. Muhabura (4127), Mt. Gahinga (3473) and Mt. Sabinyo (3669). Since then the number of tourists have been considerably increasing.

Volcano hiking started in 1994 and in around 2001 when insurgency in and around the park intensified, other tourism activities including hiking were temporarily closed. It took management some time to re-open and when other activities were resumed, hiking was not considered because of the poor state of the infrastructure especially the ladders and steps on the trails linking to the peaks. In 2002 park management eventually planned and constructed ordinary wooden ladders in all the three trails of these mountain peaks.

Visitor and staff experience indicate that wooden ladders do not guarantee safety. It has high costs of repair, involves cutting of trees in the park and become very slippery during rainy seasons.

Roads linking to Mgahinga National Park have remained a serious challenge. Efforts by the park to repair some spots have in most cases been frustrated by heavy rains that come between January and March and September to November, whatever is repaired is always washed away by floods. 6km road from Kabindi to Muhabura for visitors going to hike Mt Muhavura and Batwa trail have always received very little or no attention at all by the responsible government agencies. The 5kms end at the parking yard and from the parking yard, is a small narrow trail through the community of approximately 1 km that enters the park office through a narrow corridor.

The highway signage is geared towards establishing an easily recognizable brand for the park or product and conveys the essence of how the park would like the public to perceive its product. Mgahinga, like all other parks under UWA lacks standard signage and the existing signage varies from park to park. Highway signage for both Bwindi and Mgahinga parks that were erected some time back in 2006 have all fallen down because of road developments and others have been vandalized.

The park has been operating an information office in Kisoro since 2001 to guide visitation to Mgahinga, Bwindi and other parts of the country. The premises of this information office do not belong to UWA. In addition there have been challenges in operating this centre, for example designing the office to suite the UWA standards has always met resistance from the owner and increasing rent charges without prior notification. The office also lacks good office structures like the curio display boards and office chairs.

The park has two entrances and reservations can only be done in Kisoro office or Ntebeko Headquarters. The main entrance into the park is at Ntebeko while another one is located at Muhavura which has been the big attraction for hikers due to the unique Crater Lake at the summit and having good panoramic views. Unfortunately the park lacks a gate at this point. In this area, visitors access the park through a small narrow trail of stones.

Management actions

With support from the head office in Kampala, management will work closely with Kisoro District Local Governments and Uganda National Roads Authority to have both roads linking Kisoro Town to the national park upgraded.

A standard signage plan for the entire UWA estate was developed and is place. However what remains is its implementation. Management will continue to lobby the head office to release funds for installing the standard signage at the identified vantage points both inside and outside the park.

All wooden ladders will be replaced by metallic one to ensure safety of the visitors and staff who use them. This will in addition minimize repair costs and the continuous cutting of trees to replace broken ladders thus reducing environmental degradation.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Liaise with relevant government agencies to upgrade the access tourism roads.	SWIC	CAM,ED	Year 1&2	409,000,000
Improve the tourism trails: <ul style="list-style-type: none"> Procure and install concrete and metallic ladders and bridges (6 bridges) 	WT	SWIC	Year 1	203,200,000 14,600,000

bridges)				14,600,000
• Build boardwalks				1,050,000
• Construct resting huts (3 huts)				24,000,000
• Improve existing huts (9 huts)				
• Establish a long distance trail named 'Mt. Peak Walk' linking the three mountain peaks (opening, maintenance, campsites)				36,200,000
Procure and install signages:	WT	DTBS,SWIC	Year 3	7,000,000
• At the peaks, Sabinyo gorge junction, strategic rock at the Kazibakye swamp, along the border trail-Uganda/DRC, along the access roads from Kisoro to the park and Kabale – kisoro main road, Border points at Cyanika and Bunagana.				
Identify land and construct UWA structures for staff and information office among other requirements	SWIC	ED,CAM	Year 5	160,000,000
Construct entry gate at Muhavura base office	SWIC	WT	Year 1	2,000,000
Purchase and make available protective gear for the Garama cave visitors	WT	MM, SWIC	Year 3	5,000,000
Identify and develop resting points along the long distance batwa trail	WT	SWIC, BDM	Year 3-5	20,000,000

9.2 Products and services

Output: Improved and diversified tourism products and services

Tourism in Uganda has to some extent contributed to the livelihood of the local communities in terms of employment, income, revenue sharing and earned foreign currency. Diversification of tourism activities in the country would greatly improve on revenue earnings for various groups of people who provide services like guiding, catering, accommodation and those selling food products since the visitors would stay longer.

Issues and Rationale

Tourism in Mgahinga has for a long time relied on gorilla tracking, which has proved to be un-sustainable because of the ranging character of the gorilla group. The continuous movement of the tourism gorilla group to Rwanda and DRC in the last three years has left Mgahinga with less visitations leading to low revenue generated. In addition, relying on only one product is a big business risk especially given the competition within the region. The graph below shows the visitation trends in Mgahinga from 1994 to 2012 June.

The high visitation shows the time when gorillas were within the park.

For example in 2006 the group crossed to Rwanda from June and returned in 2007 July, 2008 the gorilla movement was little bit stable but this was affected by the global credit crunch that extended to 2009. 2010 gorilla were full time in Mgahinga. The graph below shows the number visitor arrivals to Mgahinga from 1994 to June 2012.



Figure 14: Graph showing visitor arrivals to MGNP from 1994 – 2012

Realizing this challenge management has over the years attempted to diversify the products. Currently Mgahinga has various tourism activities which attract visitors and they include:

- Gorilla tracking (though not very reliable)
- Volcano Climbing
- Golden monkey
- Nature walk (birding, Gorge walk and border walk)
- Cave exploration/ Batwa trail.

It is important to note that despite these efforts to diversify the products, the main attraction and therefore revenue earner for the park is still gorilla tracking. With more aggressive marketing, golden monkey tracking has the potential of growing into a very popular product.

Apart from the traditional products mentioned above there is need to indentify new tourism products within the park. .

Mgahinga Gorilla National Park has three mountain peaks i.e. (Mt. Muhavura, Mt. Gahinga and Mt. Sabinyo), creating an attraction for mountain hikers. However it is not practical to hike all the three peaks in one day. This therefore requires infrastructure to enable visitors stay in the park for atleast three days to be able to hike the three peaks. No such facilities as camp sites have been put in place to cater for long distance climbing.

Management actions

In order to improve the products offered by the park and making visitors stay longer, a long distance trail linking the three volcanoes of Muhavura, Gahinga and Sabinyo will be developed. Suspended ladders/hanging bridge will be developed to link the two shoulders of the Sabinyo Gorge.

Training guides and any other front line staff in visitor handling skills, first aid and product interpretation and development would help staff in giving information that will satisfy visitors.

Product research on the existing products to ascertain their performance and new product innovations will be undertaken and the findings used by the Business Development Unit to develop new product and rebrand the old ones.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Identify and map out specific areas within the park for bird watching	WRM	WT	Year 1	0
Develop the already existing Bird watching points on the Sabinyo gorge	WT	SWIC	Year 3 -10	12,000,000
Construct a monument for Berengei at Sabinyo and market the site for its historical importance.	SWIC	ED, CCAM	Year 4-6	200,000,000
Construct one hanging bridge between the shoulders of Sabinyo gorge.	SWIC	CCAM, DTBS	Year 4-6	200,000,000
Explore eco-friendly lighting for the Batwa Garama Cave	WT	SWIC, MM	Year 1-5	5,000,000
Create a link with the Banyakigezi tourism efforts about MGNP especially on tourism products and marketing	MM	WT	Year 1-10	20,000,000

9.3 Marketing

Output: Increased visitor numbers by 250 annually

Since the inception of tourism industry in Uganda, wildlife/safari tourism has been the strong selling point with the UK, USA, Belgium, German and Holland being the key source markets contributing to over 90% of total international tourist arrivals. However competition from other long haul destinations offering the same tourism products have eaten up key market share while other destinations closer to Europe are developing other forms of attractions that entice the tourists and thus opt to travel elsewhere.

However our strength as a true safari destination has remained steady. Unlike other countries Uganda greatly boasts with its mountain Gorillas, chimps and plenty of beautiful scenery.

Issues and Rationale

Traditionally UWA depends to a great extent on other stakeholders to promote its products. These are hoteliers within the parks, tour operators locally and internationally who sell packages featuring our parks UTB and UWA staff who are involved in guided tours.

UWA website is the main form of marketing through which MGNP is promoted. UWA staff mainly in tourism department has also attended international tourism fairs where Uganda is marketed as destination for visitors. At park level, the warden in charge of tourism and other tourism staff have been involved in exhibitions like the Uganda Manufacturers Association (UMA) Trade Fair that is held annually, western Trade Fare in Mbarara and other exhibitions within Kisoro and Kabale towns.

In Mgahinga, there are brochures, interpretive materials at the Visitor Information Centre (VIC), DVDs and CDs which have been developed to market the park.

Despite these efforts, direct marketing through promotional materials and e-marketing through the website and other social media have not been fully exploited.

The domestic market has not been fully tapped into and yet the foreign tourist market is not always reliable. External factors beyond the control of the park will always affect foreign visitation. The war in Eastern DRC for example has had negative effects on tourism because of the negative advisories by the respective embassies saying it is not safe to visit the western parts of Uganda.

Management actions

Management with support from the marketing unit at the head office will undertake vigorous advertising campaigns on the websites, magazines, catalogues, newspapers and televisions. In addition to the traditional UWA website, the park will create links to other socio networks like Face book, YouTube etc to market Mgahinga national park but also increase hits and traffic to the website.

Marketing events within Kisoro and the surrounding districts will be organized targeting the domestic market.

New brochures will be developed to reflect the new products and attractions that will have been developed to have the new products known to the source markets.

Management will work closely with the marketing research officer at the head office in Kampala to identify and understand the target markets, Market trends, Consumer preferences, Purchase behavior, Travel behavior and investment needs. This will enable the park to target other markets like Pacific-Caribbean, Australia, China, Newzealand, South America, etc in addition to the existing traditional European markets.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Regularly update the park specific website with vital marketing information	WT	WWP, SWIC	Year 1- 10	0
Engage in national and international advertizing of the park through various media	SWIC	CAM, MM	Year 1- 10	32,000,000
Open a social media account for MGNP and identify a responsible staff to handle the account.	SWIC	WT, TCM	Year 1- 10	3,000,000
Participate in the traditional national and international exhibitions/events.	WT	DTBS, ED	Year 1- 10	90,000,000
Identify and participate in specific MGNP tourism activity-related events worldwide	WT	SWIC, CAM	Year 1- 10	90,000,000
Carryout outdoor advertizing e.g. using bill boards, stickers, on vehicles, etc..	SWIC	CAM, ED	Year 2- 10	120,000,000
Identify and target new tourism markets e.g. Pacific-Caribbean, Australia, China, Newzealand, South America, etc.	SWIC	DTBS, ED	Year 1- 10	0

9.4 Community tourism

UWA aims at diversifying and improving tourism products, facilities, circuits and source markets. The organization also aims at strengthening community based eco-tourism for wealth generation and poverty alleviation among communities especially those surrounding the parks. This is aimed at motivating tourism stakeholders and specifically communities to conserve and accommodate wildlife as a form of economic land use while implementing measures to mitigate human-wildlife conflicts. The direct consequence of these initiatives is growth of sustainable tourism industry for current and future tourism industry consumers and suppliers.

Output: Increased tourism benefits to the community around the park

Issues and Rationale

Involvement of local communities in tourism development is an incentive to gain support for conservation outside the protected areas. Other than direct employment, tourism also offers opportunities for development of enterprises that supply inputs to the tourism trade. The Batwa cultural trails that are already in operation and the community enterprise centre at Rwerere have captured community attention around Mgahinga and communities are now realizing the benefit that can be accrued from tourism investment.

Currently there are only 4 organized groups around the park that are targeting to make full use of the enterprise centre (selling crafts and performing to visitors) but the sustainability for these groups

being together for the next one year still remains a challenge.

Apart from accommodation in Kisoro Town, Amajambere community camp just at the park entrance and Mount Gahinga lodge are the only two investments providing accommodation services around the park. Whereas mount Gahinga lodge only caters for the high end tours Amjambere targets the lower end. ,

Other unexploited tourisms potential outside the park include, Caves in Sooko and Gisozi in Rutare Parish, Cave in Mutolele, Ubwato bwa Rugaju in Bunagana, Sagitwe Hill, Mabungu, Mushungyero Peninsula, all in Kisoro district, canoeing in lake Mutanda and Malehe.

For the existing accommodation facilities in Kisoro, those who manage the facilities are not well trained in customer care and handling. The tourism accommodation facilities themselves are of low quality standards compared to the equivalents in the neighboring Rwandan town of Musanze. As a result, most community members involved in tourist accommodation end up abandoning their ventures because, their services can't meet the tourism standards and the competition in the region.

Management actions

Management will assist the community to identify and map all potential ecotourism opportunities outside the protected area, areas with plants of medicinal, scientific or cultural significance, strategically located calderas that provide vantage points for scenic viewing, picnicking and sundowners, nature walks, caves and potential cultural villages and sites that have potential for development of tourist accommodation facilities such as eco-lodges and tented campsites.

Once these products have been developed, the park working with the district will help in marketing the products both locally and internationally.

Management will also work with the District Commercial Officer of Kisoro District to support local communities develop their own tourism related enterprises through training in visitor handling, campground management and restaurant management among others.

With support from the head office in Kampala and working closely with Kisoro District Local Government, management will spearhead the review of the business plan for Rwerere community enterprise centre that currently not being fully utilized.

Detailed management actions

Activity	Resp	Others involved	Timing	Es.cost
Identify and map out tourism products/attractions around the park	WT	WRM	Year 1	480,000
Work with relevant District Officers to develop and market tourism attractions around the park.	SWIC	WT	Year 1-3	28,800,000
Identify capacity gaps and train communities to manage tourism based enterprises	SWIC	WCC, WT	Year 2	8,400,000
Guide private partners on opportunities for tourism based enterprises	WT	SWIC	Year 2	10,000,000
Together with DLG identify the private partner to manage Rwerere community enterprise centre.	SWIC	CAM	Year 1	22,000,000
Revise the Rwerere community enterprise centre business plan to include accommodation facilities	SWIC	CAM, DLG	Year 2	15,000,000

PART 10: Development and Dissemination of the interpretive themes

10.1 Introduction

Interpretive themes are stories or topics elaborating a particular resource value or event. It is based on the purpose and conservation values of the PA. The following were the interpretive themes identified for MGNP during the planning process and will be used for interpretation of the park.

10.2 The origin of the name Muhabura

This volcano received the name Muhabura by the indigenous people who were basically hunters and gatherers. These people, while out on expedition to look for food, used to locate their way back with aid of Mt. Muhabura due to its height and could be seen from various locations in the forest hence the name Muhabura literally meaning the Guide.

10.3 The origin of the name Gahinga

According to the indigenous people, the mountain ranges looked like heaps of stones which they used to heap while gardening. The heaps in the gardens look like the relatively smaller volcano, hence the name Gahinga literally meaning heap of stones.

10.4 The origin of the name Sabinyo

Sabinyo is the second highest among the three volcanoes and has three peaks. The peaks make this volcano look ragged at the top and these ragged peaks look like an old man's molar tooth which is locally translated as "Erinyo", but because there is more than one peak, it was named Sabinyo.

10.5 The Batwa ancestry (Gihanga and his three sons)

Several hundred years ago, the area currently covering Kisoro District was occupied by Batwa people. They inhabited the forested parts and their livelihood depended on gathering wild fruits and hunting. Traditionally there were three tribes, Bahutu, Batutsi and Batwa. Each son was given to hold gourds or pots by their fore-father Gihanga and the pots were all full of milk. Then after it came to the night, the Mutwa became a sleep and the milk got poured. He got hungry and drunk all the remaining milk. The Muhutu fell asleep also and the milk poured off a little and the balance remained in the pot while the gourd belonging to the Mututsi was still full.

In the morning Gihanga graded each of the sons and gave them rewards. Because the Mutwa lost all his milk, they called him Mutwa and was sent away without any blessing, so he went out to the wilderness and hence a forest dweller as a hunter and gatherer. Then because the Muhutu had at least a portion of milk in the pot, he was given some blessing and equipment to go and work using a hoe and dig, hence a cultivator. Gihanga was very pleased for the Mututsi who had the whole pot of milk still full. He gave him cows and blessed him to be a property holder and keep cows and be rich.

10.6 The origin of the name *Gorilla beringei beringei*

In October 1902, Captain Robert von Beringei (1865–1940) shot two large apes during an expedition to establish the boundaries of German in East Africa. One of the apes carcass was recovered and samples from the carcass sent to the Berlin Zoological Museum, where Professor Paul Matschie (1861–1926) classified the animal as a new form of gorilla and named it *Gorilla beringei* to correspond with the name of the man who discovered it.

10.7 Traditional use of the Garama cave by the Batwa

Garama Cave, measuring about 342m in length and about 14 m deep, was one of the homes of the Batwa where they took refuge and sought for protection against their enemies. The cave is therefore one of the sites for Batwa cultural heritage. Batwa would mount expeditions against neighbouring tribes and take refuge from reprisals. Garama and other caves also acted as places where the Batwa would cook from and occasionally a place they would rest and sleep. However Batwa had in the cave a throne center for the leader and used during the times of worship or shelter. The Batwa sometimes feared staying in the cave for long periods of time because they were scared of falling into the pool of water within the cave and drowning in the darkness. As a practice and what happens in other caves, Garama acted as a site for bringing recently killed animals to be slaughtered and then dried over a fire. The habit of drying and curing the meat allowed the Batwa to preserve the meat for several days and make the meat lighter to carry when on their expeditions.

PART II: Evaluation and Monitoring

II.1 Plan Evaluation and Monitoring

The performance evaluation of this GMP including the financial generation and expenditure sections will be done after the 5th year of implementation and before the end of the 6th year of implementation. This exercise will be done for the following reasons among others;

- i. Determine the level of activity implementation as planned
- ii. Asses and create awareness about park operations for the benefit of stakeholders
- iii. Stream line management effectiveness and create transparency to the Partners and stakeholders
- iv. Assess the effectiveness of the planning process as a tool for effective and efficient management
- v. Identify gaps and propose a way forward to fill the gaps.
- vi. Identify new issues and activities for implementation
- vii. Determine financial discipline in expenditure
- viii. Evaluate the revenue generation strategies
- ix. Reschedule the remaining actions within the time frame

II.2 Monitoring and Evaluation plan and tracking indicator tables


COMMUNITY
CONSERVATION PRO


MONITORING AND
RESEARCH PROGRAM


PARK OPERATIONS
PROGRAM MGNP.xls


REGIONAL
COPERATION MGNP.:


RESOURCE
CONSERVATION PRO


TOURISM
DEVELOPMENT PROG

Note that the detailed monitoring and evaluation plan and tracking indicator tables are available as soft copies stored under the folder of GMPs.

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APPENDICES

Appendix I: Identified management issues/challenges

Program	Issues and challenges generated
Tourism	<p>Infrastructure</p> <ol style="list-style-type: none"> 1. Poor access roads (inaccessible roads) 2. Poor tourism trails 3. Inadequate and inappropriate signage 4. Lack of UWA owned information office structure 5. Inappropriate location of the existing rented information office 6. Lack of entry gate at Muhavura <p>Products and services</p> <ol style="list-style-type: none"> 1. Movement of Gorillas (Trans- boundary) leading to low visitors and low revenue generation 2. Limited tourism products 3. Un satisfactory guiding <p>Marketing</p> <ol style="list-style-type: none"> 1. Lack of aggressive marketing for tourism products <p>Stakeholder collaboration</p> <ol style="list-style-type: none"> 1. Poor coordination of tourism activities among tour operators 2. Misconduct of the private guides <p>Community tourism</p> <ol style="list-style-type: none"> 1. Low involvement of communities in tourism development 2. Low cultural tourism development
Community Conservation	<p>Human-wildlife conflict</p> <ol style="list-style-type: none"> 1. Problem animals 2. Crop raiding 3. Inadequate Problem animal management 4. Lack of compensation scheme 5. Inadequate Vermin management 6. Lack of vermin guards 7. No benefits (Gorilla levy) to some community members hurt by gorillas on their private land. 8. Human wildlife conflict 9. Destruction of gravity water pipes by problem animals 10. Inadequate maintenance of Buffalo wall 11. Incomplete Buffalo wall <p>Revenue sharing</p> <ol style="list-style-type: none"> 1. Mismanagement of the Gorilla levy and Revenue sharing projects 2. Low community satisfaction about the revenue sharing percentage 3. Poor Identification of Gorilla levy projects 4. Inadequate evaluation of revenue sharing funded community projects. 5. Poor Implementation of gorilla levy guidelines 6. Unsustainable projects funded by Revenue Sharing money 7. Fixed/static empirical gorilla levy rate (percentages would be appropriate) 8. Inadequate support to reformed poachers <p>Resource use</p> <ol style="list-style-type: none"> 1. Pressure for park resources from the neighbouring communities 2. Water scarcity 3. Limited access to park resources 4. Inappropriate methods of honey harvesting 5. Non involvement of local resource users in monitoring resource off take

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Program	Issues and challenges generated
	<p>Fire management</p> <ol style="list-style-type: none"> 4. Wildfires 5. Inappropriate honey harvesting methods <p>Disease transmission</p> <ol style="list-style-type: none"> 6. Human wildlife disease transmission threats
Research and Monitoring	
	<p>Research</p> <ol style="list-style-type: none"> 1. Limited research facilities and, researchers in Mgahinga 2. Inadequate database for information and management 3. Wildlife diseases 4. Exotic species in the PA 5. Habitat use by the Nyakagezi group 6. Un updated Population and Habitat viability of key wildlife species 7. Lack of recent socio-economic survey 8. Research on the impacts of tourism on the behavior of Golden Monkeys 9. Lack of information on the impact of legal resource access e.g. Water and Bamboo <p>Ecological Monitoring</p> <ol style="list-style-type: none"> 1. Over emphasis on Gorilla conservation at the expense of other species in the PA 2. Wildlife diseases 3. Lack of database for information management 4. Impact of population growth on the park resources <p>Compliance monitoring</p> <ol style="list-style-type: none"> 1. Waste management 2. Inadequate monitoring of the impacts of tourism on PA resources 3. Inadequate monitoring of Resource off-take
Regional collaboration	
	<ol style="list-style-type: none"> 1. Trans boundary problem animals management 2. Inadequate sharing of information on the transboundary Gorilla groups 3. Potential Insecurity threats from the neighboring countries 4. Loss of revenue due to the transboundary movement of Nyakagezi gorilla group
Park operations	
	<p>Human and logistical capacity</p> <ol style="list-style-type: none"> 1. Lack of stable and sufficient power to run computers, copiers, etc 2. Inadequate transport (one additional car required and 2 motorcycles) 3. Inadequate field equipment 4. Inadequate specialised re-training of staff 5. Increasing HIV prevalence rates among staff and community members around the PA 6. Inadequate Staff accommodation and offices <p>Financing for Planned activities(plan implementation)</p> <ol style="list-style-type: none"> 1. Inadequate funding for planned activities

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Program	Issues and challenges generated
	<p style="text-align: center;">Land use</p> <ol style="list-style-type: none"> 1. Land shortage outside the park 2. Population pressure 3. Incompatible land use practices around the PA <p style="text-align: center;">Awareness</p> <ol style="list-style-type: none"> 1. Lack of educational materials 2. High levels of illiteracy 3. Inadequate sensitization on PA programs(Rwerere CEC) 4. Poor sanitation 5. Low appreciation of conservation values leading to misunderstanding with the park management 6. Inadequate education, sensitization and information dissemination to communities <p style="text-align: center;">Stakeholder collaboration</p> <ol style="list-style-type: none"> 1. Slow attitude change towards conservation 2. Weak partnership between MGNP and Local Government 3. Lack of integration between Kisoro District development Plan and MGNP Management Plans 4. Inadequate linkages to various authorities responsible for access roads maintenance. 5. Un satisfactory PA-Community relationship 6. Inadequate stakeholder awareness on conservation and tourism 7. Lack of awareness of the judiciary, directorate of public prosecution and Police about wildlife laws 8. Political interference in protected area management 9. Inadequate involvement of local leaders in community sensitization. 10. Limited community appreciation of conservation 11. Inadequate linkages to various authorities responsible for access roads maintenance. 12. Poor information dissemination around gorilla ticket booking in relation to gorilla group to track and rules for tracking
Resource conservation	<p>Security</p> <ol style="list-style-type: none"> 1. Illegal movement through the park 2. Insurgency in the neighbouring countries 3. Unexploded explosives in the park <p>Illegal activities</p> <ol style="list-style-type: none"> 1. Poaching 2. Cattle grazing 3. Un authorized tourism activities in the PA 4. Un authorized grass cutting 5. Illegal resource harvesting such as Bamboo, bean stakes, building poles, etc. 6. Illegal firewood collection <p>Boundary management</p> <ol style="list-style-type: none"> 1. Inadequate maintenance of Buffalo wall 2. Incomplete Buffalo wall 3. Pockets of Encroachment along the boundary (in all the parishes touching the park)