



CONVENTION ON MIGRATORY SPECIES

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MEETING TO NEGOTIATE AN AGREEMENT ON THE
CONSERVATION OF GORILLAS AND THEIR HABITATS
UNDER THE CONVENTION ON MIGRATORY SPECIES
Paris, France, 22-24 October 2007
Agenda Item x.0

DRAFT ACTION PLANS

Western lowland gorilla (*Gorilla gorilla gorilla*)

Cross river gorilla (*Gorilla gorilla diehli*)

Eastern lowland gorilla (*Gorilla beringei graueri*)

Mountain gorilla (*Gorilla beringei beringei*)

These action plans are essentially based on the Gorilla report outlined by the IRSNB for the CMS in 2005; The World Atlas of Great Apes and their Conservation (published in 2005), the existing National Action Plans (NGASP), various workshops reports (Brazzaville, 2005; Limbe Botanic Garden, 2003; Calabar, 2006), and many other publications

Action plan *Gorilla gorilla gorilla*

(Version of July 2007)

This document is essentially based on the Gorilla report outlined by the IRSNB for the CSM in 2005; The World Atlas of Great Apes and their Conservation (published in 2005), the regional action plans for the preservation of Chimpanzees and Great Apes in Occidental Equatorial Africa, existing National Action Plans, and many other publications.

Seven countries are concerned by the action plan for the *Gorilla gorilla gorilla*:

- **Angola**
- **Republic of Cameroon**
- **Central African Republic**
- **Congo**
- **Gabon**
- **Equatorial Guinea**
- **Congo Democratic Republic**

A. Angola

The Western lowland gorilla occurs in Cabinda, which is the southern margin of tropical moist forest and the southwestern edge of gorillas distribution in western Africa. No definitive population figures exist. Gorillas are thought to be rare since the 1970's (Caldecott and Miles, 2005), probably declining.

1. Legislation

National

Existing (Article 24 of National Constitution; Decree n°40040 of 1955; Law 5/98 "basic law of environment"); responsibility of the Ministry of Urban affairs and Environment, but in practice the Forestry Development Institute (IFD) remains in overall charge of forest sector, with the National Directorate of Agriculture and Forest (DNAF) with which it shares responsibilities in relation to policy formulation and guidance.

But it is reported that wildlife protection laws are scarcely enforced either inside or outside PA, and poaching, harvesting and settlements inside PA occur regularly.

Wildlife products are sold openly in markets in Luanda and throughout the country (Caldecott and Miles, 2005).

International:

- CMS, 2006

- CBD, 1998, but no national report on implementation, no national biodiversity strategy and action plan
- World Heritage Convention (1991), but no World Heritage Site as yet
- ACCNNR, 1976

2. Conservation action

Although the country has had a long established system of PA (since 1937), the almost continuous civil war in the country since 1974 has had significant impacts on Angolan PA and conservation efforts, particularly relating to populations of large mammals, even in large PA (Huntley and Matos, 1994). Many PA lack wardens; poaching, settlement incursion, the cultivation of inside PA occur regularly.

- Protected Areas of importance to Gorillas conservation:

The Maiombe forest in Cabinda is critical for Gorillas conservation in Angola, yet, is virtually unprotected in law or practice.

- Current projects/activities with direct or potentials implications for Gorillas conservation:

1. Development of a national biodiversity strategy and action plan: UNDP, with GEF funding; started end of 2004. Outcomes expected: identification of the status of biodiversity and priority actions to ensure biodiversity conservation and its sustainable use.
2. Improved Environmental Planning and Conservation of Biological Diversity in Angola (ANG/02/005): UNDP funded by NORAD. Aims to strengthen national capacity to protect and manage natural biological resources, especially in planning, monitoring, evaluation and reporting on the state of the nation's environment and its implementation of international conventions. Implemented 2002-2004.
3. Following this UNDP/NORAD project, the Cabinda provincial government is developing plans for the study and conservation of the Maiombe forest and its ape populations. The proposal includes the designation of a new PA and a separate sanctuary for the rehabilitation of orphaned wildlife, including gorillas and chimpanzees. A regional task force for the joint protection of the Maiombe forest by the 3 countries (Angola, RDC and Congo) is being established with the help of UNDP.
4. A consultation and awareness process is underway with resident communities
5. Development, within the armed forces, of voluntary "friends of nature" clubs.

3. Priority actions

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

Overwhelming and immediate priorities for gorillas conservation are:

Nationally:

- Building capacity for environmental law enforcement;
- Education and awareness development at governmental, nongovernmental organisation and community level throughout Cabinda, especially in and around the Maiombe forest;
- Census of Cabinda to identify viable populations of gorillas;
- Effective law enforcement to halt commercial hunting (there is no strong ape bushmeat tradition, but poaching can be lucrative through sale of bushmeat to the military).
- Awareness campaign aiming at soldiers, police, resident communities, accompanied by measures to encourage and enable local people to achieve sustainable livelihoods.

Internationally /collaboration across borders

- Favor a transboundary gestion of the gorillas populations.
- Further development of a transborder conservation initiative between Angola, DRC and Congo, for the protection of the Maiombe forest, as a response to the cross-border smuggling of wildlife and timber. A proposal has been developed by UNDP, and should be taken further.
- Put a concerted preservation system between Angola, Congo Republic and CDR in order to insure the survival of the Western lowland gorillas whose populations are probably not viable in CDR.
- Develop collaboration and transboundary information exchange between the three countries on the Western lowland gorilla's situation.
- Develop a new transboundary preservation initiative in response to the fauna and wood smuggling. A proposition have been developped by the PNUD, and should be going on. This proposition suggest in particular :
- Lead inventories on the gorillas populations in the forest of Maiombe in Cabinda, in CDR, and in the Republic of Congo, in order to gather gorilla counting data, habitat status as well as collecting genetic material.
- Train the participants belonging to local communities as well as the research staff, to census methodology and to the establishment of laws by the communities.
- Lead socio economical investigations on the "bush's meat" trade and market, the pressure of hunting and local behaving toward the Maiombe forest preservation.

4. Current/ Potential donors

The association of oil operators in Cabinda, headed by ChevronTexaco, established a protocol with the Angolan government in 2002, through which they provide modest support to the Maiombe forest area.

B. Republic of Cameroon

Compare with the other countries in the region, Cameroon has experienced relative stability in the last decades (apart from a border dispute with Nigeria over the Bakassi Peninsula, ongoing since 1992), allowing the steady development of infrastructure, agriculture and the oil and timber industries.

Cameroon is host to both the Western lowland Gorilla and the Cross-River Gorilla. The Western lowland Gorilla is represented with a total population recently estimated at 15.000 individuals (ref. 54 of Caldecot and Miles). Two third of this global population lives in a triangle of PA on the common border of Cameroon (Lac Lobéké NP), the CAR 5Dzangha-Ndoki NP) and Congo (Nouabalé-Ndoki NP), collectively called the “Trinationale de la Sangha” (core area 7300km² and buffer zones of 21.000km²). The remaining third of the total western lowland gorillas is distributed between 7-8 PA of different status.

1. Legislation

National

Law n° 94/01 (1994) sets out the country’s forestry, wildlife, and fishery regulations, and lists gorillas as Category A species, which are fully protected against hunting, capture, or sale, in whole or in part.

National Parks and wildlife reserves may be established under the auspices of the Direction de la Faune et des Aires Protégées (DFAP), of the Ministry of Environment and Forestry (MINEF), which is also responsible for the country’s biodiversity in general.

International

- CMS, 1983
- CBD, 1994
- WHC, 1982(A world heritage covention site, also an UNESCO’s MAB site, the Dja reserve, with the presence of *Gorilla.g.gorilla*)
- ACCNR, 1968
- CITES, 1981

2. Conservation action

- **Protected areas of importance to the Western lowland Gorilla:**

- Lac lobéké NP
- Campo-Ma’an NP
- Dja Wildlife Reserve/Biosphere Reserve
- Nki NP

- Mengamé Gorilla Sanctuary
- Boumba-Bek NP and Wildlife Reserve

Of all these PA, Dja Wildlife Reserve is the largest at 6236 km².

Several of these PA are situated on or close to international boundaries: this can mean danger for conservation of gorillas if boundary conflict happens, but can on the other represent opportunities for cooperation with neighbouring countries.

- Current projects/activities with direct or potential implications for Gorillas conservation:

1. ECOFAC, EU funded conservation program, has been active in Dja WR since the early 1990s.
2. WCS involved in Cameroon since 1998. Involved in program to control the illegal transportation of bushmeat.
3. Jane Goodall Institute (JGI) established a community based and wildlife research program in Mengamé Gorilla Sanctuary.
4. Global Witness on the issue of illegal logging
5. A number of international organisations involved with research and education activities, Living Earth, Bristol Zoo, FFI, WWF...
6. Bushmeat Project, involving hunters in fauna protection in eastern Cameroon.
7. A number of awareness programs are run by national and international NGOs, and public education is a component of most current conservation and development projects.
8. The Limbé wildlife center is a rehabilitation centre for great apes and other species.

- Existing international initiatives with direct or potential implications for Gorillas conservation:

1. 1999 Yaoundé Declaration signed by Cameroon, CAR, Congo, Chad, Equatorial Guinea and Gabon, outlining plans to create new cross-border protected forest areas in the Congo Basin. Later, the Conference of Central African Moist Forest Ecosystems (CEFDHAC), coordinated by IUCN Yaoundé, was nominated to lead an intergovernmental process based on the Yaoundé Declaration. The initiative includes:

- the endorsement of the 7300km² network of PAs “Trinationale de la Sangha”
- the creation of 2 new NPs in Cameroon, one of them an important site for the Western lowland Gorilla: Campo Ma’an NP.
- The new Central African World Heritage Forest initiative
- The Congo Basin Project
- The Congo Basin Forest Partnership

3. Priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

Immediate priorities for gorillas conservation are:

Nationally:

- Three areas have been identified by the Ministry of Environment and Forestry as priorities for protection in the Congolian lowland evergreen forest of the extreme southeast Cameroon: Boumba-Bek NP and wildlife Reserve, Lac Lobéké NP and Nki NP. Better demarcation of existing PA boundaries would help in the fight against illegal logging.
- Better coordinated research and monitoring on gorillas distributions and populations throughout Cameroon
- Large scale information and education campaigns needed to inform Cameroonians of the endangered status of gorillas and attract their attention to the wildlife protection laws.

Several sites of exceptional priority for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the following (A summary of the actions needed, partners and funding needed identified at the Brazza workshop can be found in annex):

- Dja Biosphere Reserve and surrounding forests

DJA Biosphere Reserve priority actions:

- Establish and maintain basic management infrastructure in the Dja Conservation Complex.
- Recruitment, training and functioning of 50 extra ecoguards for²law enforcement activities.
- Reactivate and maintain permanent great ape research areas²throughout the area.
- Establish great ape monitoring and survey program across complex.
- Establish a disease surveillance program and rapid response structure specifically for great apes (with focus on Ebola and Anthrax).
- Establish community-based biodiversity enterprises to support ape habituation and community-based ecotourism.

- Boumba Bek- Nki Conservation Complex

Boumba Bek and Nki proposed NPs priority actions:

- Finalize legal status of both National Parks.

- Establish and implement effective law enforcement program, including recruitment and training of 100 ecoguards and annual transboundary patrols with Odzala National Park Initial recruiting and training for 100 ecoguards.
- Maintain annual ape bio-monitoring program.
- Establish a disease-monitoring program specifically for great apes given geographical proximity of recent Ebola outbreaks.
- Establish collaborative framework with all stakeholders in support of great ape conservation, while developing management plan.

- The Trinationale de la Sangha complex, which includes the Lac Lobéké NP in Cameroon. (See International Priority actions)

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- Proposed Mengawé Gorilla Sanctuary:

Mengawé GS priority actions:

- Formalize legal status of gorilla sanctuary.
- Establish and implement effective law enforcement and community sensitization program, including recruitment and training of 30 ecoguards and initiation of cross-border protection activities.
- Develop and sustain great ape–human conflict mitigation strategy.
- Implement disease-monitoring program (given geographical proximity to past Ebola outbreaks).
- Maintain ape bio-monitoring program and reinforce survey database.
- Develop community mobilization strategy in support of great ape conservation.

- Campo-Ma'an – Rio Campo conservation complex, between Cameroon - Equatorial Guinea (see International priority actions)

Internationally/transborder cooperation:

Further reinforce existing transborder agreements and initiatives, in particular:

- La Trinationale de la Sangha , with CAR and Congo

The Sangha Trinational is not only a regionally and globally important area for wildlife, it holds great potential for assessing and enhancing the effectiveness of transboundary and collaborative approaches to conservation in western equatorial Africa.

- Develop an epidemiological surveillance system and rapid response structure for the emergence of diseases, specifically Ebola.
- Improve judicial and law enforcement structures in protected areas and timber concessions, including capacity building, monitoring systems, and promotion of wildlife protection laws in logging concessions.
- Standardize protocols for training and implementation of bio-monitoring programs for great ape populations.
- Develop and promote national and transboundary structures for gorilla ecotourism in the Nouabalé-Ndoki, Dzanga and Lobéké National Parks.

- Campo Maan- Rio Campo Conservation Complex, with Equatorial Guinea

- Implement law enforcement and disease surveillance program; including recruitment and training of 50 ecoguards.
- Establish and maintain basic management infrastructure in Rio Campo.
- Establish and maintain a bio-monitoring program for gorillas.
- Explore ecotourism potential — conduct a feasibility study with gorillas viewing options.
- Develop and sustain platform for collaboration between stakeholders about logging issues.

C. Central African Republic

The economic situation of CAR has deteriorated in recent years due to severe political disturbances. The country is at the north-eastern edge of the range of the western lowland gorilla. Gorillas are restricted to the forests of the southwest of the country: they occur in both the Dzanga and Ndoki sectors of the Dzanga-Ndoki NP (2.333km²), in the Dzanga-Sangha Dense Forest Special reserve (3.359km²), and in the Ngotto forest, a proposed NP.

1. Legislation

National

The Ministry of the Environment, Waters, Forests, Hunting and Fishing is responsible for wildlife conservation and the use of natural resources in CAR. These are governed by Ordinance n°84.045 (1984) and Law n°90.003 (1990).

Great apes are listed in Category A as “completely protected”.

There are three principal categories of PA in CAR:

- Strict nature reserve (1)
- National Parks (5)
- Faunal Reserves (8)
- There is also one Special Reserve, and one Private Reserve

International:

- CBD, 1995
- CITES, 1980
- ACCNNR, 1969
- WHC, 1980

2. Conservation action

- Protected areas of importance to the Western lowland Gorilla:

Gorillas occur in:

- The Dzanga-Ndoki NP, in both Dzanga and Ndoki sectors, and in adjoining Dzanga-Sangha Dense Forest Special reserve,
- The Ngotto forest, the proposed Mbaéré-Bodingué NP.

- Current projects/activities with direct or potential implications for Gorillas conservation:

1. Several international NGOs have been supporting conservation projects in Dzanga-Ndoki and Dzanga-Sangha SR, including WWF, WCS, as well as international organisations such as the World Bank and GTZ.

2. ECOFAC, EU funded conservation program, has supported the administration of the Ngotto forest until 2003.

- Existing international initiatives with direct or potential implications for Gorillas conservation:

CAR collaborates with Cameroon and Congo in managing a three-way transfrontier reserve “la Trinationale de la Sangha”(TNS), in which the Dzanga-Ndoki NP of CAR is contiguous with the Lac Lobéké NP of Cameroon and with the Nouabalé-Ndoki NP of Congo. The agreement signed in 2000 resulted in joint ranger patrols and successful exchange of information.

3. Priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

The most important threats facing Gorillas in CAR are hunting for the bushmeat trade, and the threat from Ebola virus epidemics.

Immediate priorities for gorillas conservation are:

Nationally:

- Increase law enforcement: Control hunting and bushmeat trade
- International research on Ebola virus nationally and internationally

Further needs include:

- Real need for political commitment and long term sustainable funding mechanisms
- Capacity building
- Improved information on gorillas populations size and distribution
- Large scale information and education campaigns.
- Mbaéré-Bodingué area, in Ngotto forest, to receive National Park status
- A corridor connecting Mbaéré-Bodingué and Dzanga-Ndoki must be negotiated with logging companies

Several sites of exceptional priority for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the following (A summary of the actions needed, partners and funding needed identified at the Brazza workshop can be found in annex):

- La Trinationale de la Sangha, in which in which the Dzanga-Ndoki NP and the Dzanga-Sangha SR of CAR are part (see International transborder actions)

Several sites of priority importance for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the following (A summary of the actions needed, partners and funding needed identified at the Brazza 2006 workshop can be found in annex):

Internationally/transborder cooperation:

Real need for regional collaboration on important transborder Gorillas sites;
Further reinforce existing transborder agreements and initiatives, in particular:

- La Trinationale de la Sangha

The Sangha Trinational is not only a regionally and globally important area for wildlife, it holds great potential for assessing and enhancing the effectiveness of transboundary and collaborative approaches to conservation in western equatorial Africa.

- Develop an epidemiological surveillance system and rapid response structure for the emergence of diseases, specifically Ebola.
- Improve judicial and law enforcement structures in protected areas and timber concessions, including capacity building, monitoring systems, and promotion of wildlife protection laws in logging concessions.
- Standardize protocols for training and implementation of bio-monitoring programs for great ape populations.
- Develop and promote national and transboundary structures for gorilla ecotourism in the Nouabalé-Ndoki, Dzanga and Lobéké National Parks.

D. Congo

Congo is one of Africa's main petroleum producers, with significant potentials for further offshore development. Petroleum and timber represent 80% of GDP. It is one of the most densely forested countries on the African continent.

The Congo river and the Oubangui river form the eastern edge of the range of the western lowland gorilla. The Oubangui river is thought to be the most easterly limit to the range of the species, unless the populations in southwest RDC are not extinct, as believed.

A large proportion of the western lowland gorillas are thought to live in Congo, mostly in the densely forested northern region, but also, to a lesser extent, in the central and south-western parts of the country.

But this large population of gorillas is at risk from logging and associated poaching, and, since the late 1990s, from the major threat represented by the Ebola virus. Bushmeat consumption is traditional among certain ethnic groups, in the north, but there has been an increased demand for bushmeat in towns and cities in Congo and neighbouring countries with the increase of urban incomes.

1. Legislation

National:

The main laws dealing with wildlife preservation and use are Law 48/83, Law 49/83 and Decree 85/879.

The Ministry of Forest Economy and the Environment (MFEE) is responsible for wildlife conservation and regulated use, including the management of protected areas.

There are three main categories of protected areas:

- national parks (4)
- faunal reserves (6)
- hunting reserves (4)

There are also 4 faunal sanctuaries and a number of other reserves.

International:

- CMS, 2000
- CBD, 1993
- WHO, 1987
- CITES, 1983
- ACCNNR, 1981

Two Biosphere Reserves: Ozala-Koukoua NP and Dimonoka (Mayombe mountains) and part of the Congo Basin Forest Partnership

2. Conservation action

- Protected areas of importance to the Western lowland Gorilla:

- Ozala-Koukoua NP (13.456 km²):

Ozala has the highest recorded densities of western lowland gorillas in Central Africa (mean 5.4/km², and up to 11.3/km² in the Marantaceae forests), administered between 1992-2005 by ECOFAC. It is one of the most important strongholds for elephant and gorilla conservation in Central Africa and arguably one of the most spectacular wilderness areas in the world. The area incorporates mixed and Marantaceae forest types and an abundance of forest clearings supporting exceptional densities of a number of charismatic large mammals, including western gorillas.

- Nouabalé-Ndoki NP (4.193 km²), now managed by MFEE/WCS.
- Conkouati-Douli NP (5.045 km²), on the Atlantic coast in south-western Congo.
- Lossi Gorilla sanctuary, a small reserve created by the local communities
- Lac Télé/Likouala-aux –Herbes Community reserve

- Current projects/activities with direct or potential implications for Gorillas conservation:

1. ECOFAC (EU) funded conservation program, has been very active in the management of Ozala-Koukoua NP since 1992.

2. WCS involved Nouabalé-Ndoki NP. Involved, with a logging company, in a program developing guidelines for hunting, including a ban on ape and other endangered species hunting and the export of meat from the concession. As a result, commercial bushmeat hunting was reduced.

3. The Congo Government now requires all logging companies operating northern Congo to pay for “ecoguards” and wildlife management on their concessions.

4. Ecotourism and gorilla watching is developed at several sites, including Odzal-Koukoua NP and Nouabalé-Ndoki NP.

5. Sanctuaries:

- the John Aspinall gorilla orphanage was started in Brazzaville zoo in 1994.
- Lefini-Louna sanctuary

- Existing international initiatives with direct or potential implications for Gorillas conservation:

1. Congo is a partner in the Trinationale de la Sangha (TNS), a 7.300km² transborder conservation zone, which comprises the Nouabalé-Ndoki NP of Congo, as well as Lac Lobéké NP of Cameroon and Dzanga-Ndoki NP of CAR. All three sectors of TNS support important populations of gorillas.

2. A proposal for a Mayombe transboundary area exists, between Congo, Angola and DRC, but not yet approved by governments.

3. Priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

Immediate priorities for gorillas conservation are:
(as stated in NGASP Congo)

Nationally:

- Increase law enforcement, antipoaching brigades in forest concessions
- Increase effective surveillance of PA
- Develop a monitoring system for illegal activities concerning gorillas
- Undertake more research into the status, distribution and biology of gorillas
- Better coordinated research and monitoring on gorillas distributions and populations, and diseases (particularly Ebola virus) epidemiology throughout Congo.
- Increase research on vaccines and ways to vaccinate people and wild apes against the Ebola virus.

- Develop a national policy on tourism, and promote local ecotourism
- Develop alternative sources of income for rural communities
- Create an autonomous wildlife and PA management agency.
- Undertake large scale information and education campaigns needed to inform Cameroonians of the endangered status of gorillas and attract their attention to the wildlife protection laws.

Several sites of exceptional priority for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the following (A summary of the actions needed, partners and funding needed identified at the Brazza workshop can be found in annex):

- Odzala-Lossi-Pikounda-Ngombe-Ntokou Complex:

- Establish a quick response structure and systematic epidemiological surveillance system for Ebola, both before, after and during epidemics.
- Implement biomonitoring of ape populations in zones both affected and unaffected by Ebola, in order to evaluate impact.
- Increase capacity in biological sampling techniques and bio-monitoring through targeted training programs.
- Establish early-warning system and community awareness campaign for Ebola in local community.
- Implement effective protection for remaining ape populations through anti-poaching patrols.

- Lac Tele-Likouala Complex:

- Support government agents and local communities in promoting and implementing great ape protection efforts in and around the Lac Tele Community Reserve.
- Conduct baseline ape surveys in the Likouala and Baille swamps to the southeast and west of Lac Tele Community Reserve to assess great ape populations.
- Standardize protocols for training and implementation of bio-monitoring program for great ape populations.
- Establish systematic surveillance systems for the emergence of zoonotic diseases in great ape populations.

Several sites of priority importance for *Gorilla g.gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the

following (A summary of the actions needed, partners and funding needed identified at the Brazza 2006 workshop can be found in annex):

- Conkouati-Mayumba Complex, Republic of Congo and Gabon (see sites of international importance)

- Internationally/transborder cooperation:

Promote transborder management of gorillas.

Further reinforce existing transborder agreements and initiatives, in particular:

- La Trinationale de la Sangha

The Sangha Trinationale, which comprises the Nouabalé-Ndoki NP of Congo, as well as Lac Lobéké NP of Cameroon and Dzanga-Ndoki NP of CAR, is not only a regionally and globally important area for wildlife, it holds great potential for assessing and enhancing the effectiveness of transboundary and collaborative approaches to conservation in western equatorial Africa.

- Develop an epidemiological surveillance system and rapid response structure for the emergence of diseases, specifically Ebola.
- Improve judicial and law enforcement structures in protected areas and timber concessions, including capacity building, monitoring systems, and promotion of wildlife protection laws in logging concessions.
- Standardize protocols for training and implementation of bio-monitoring programs for great ape populations.
- Develop and promote national and transboundary structures for gorilla ecotourism in the Nouabalé-Ndoki, Dzanga and Lobéké National Parks.

- Conkouati-Mayumba Complex, Republic of Congo and Gabon

- Develop capacity and structures for effective law enforcement and judiciary process in the Conkouati-Douli National Park and surrounding buffer zones, including training of park guards and transboundary protection efforts and policies.
- Build a great ape research and training station within the CDNP, to conduct effective and timely bio-monitoring and provide effective deterrent to poaching.
- Conduct baseline surveys of ape populations and other large mammals in CDNP and Mayumba NP buffer zone.
- Establish systematic surveillance systems for the emergence of zoonotic diseases.
- Implement conservation education awareness and outreach programs in local communities, with specific emphasis on great apes.

- Maiombe Forest, Republic of Congo, Angola (Cabinda Province), Democratic Republic of Congo

- Strengthen the initiatives and transboundary agreements, for the Maiombe Forest situated between the Republic of Congo, Angola (Cabinda Province), and Democratic Republic of Congo.
- Establish a concerted preservation system between Angola, The Republic of Congo and DRC in order to ensure the survival of Western low altitude gorillas that reached non viable figures in DRC.
- Develop the transboundary collaboration and data exchange between the three states on the Western Lowlands Gorilla status.
- Develop a new transboundary preservation initiative, in response to the fauna and wood smuggling. A proposal have been developped by the PNUD, and should carry on. This proposal suggests in particular to:
 - Conduct ape population surveys in the Maoimbe Forest in Cabinda, DRC, and Congo Republic, to include ape counts, habitat status and collection of genetic material.
 - Provide training for local community participants and research personnel in ape census, methodology and community-based law enforcement.
 - Conduct socio-economic surveys on bushmeat market trade, hunting pressure and local attitudes to conservation in the Maoimbe Forest.

E. Gabon

Located between the Congo Basin and the Gulf of Guinea, Gabon is surrounded by Cameroon, Equatorial Guinea and Congo. Decades of political stability, a relatively small human population (although growing rapidly now) and abundant natural resources including oil and forestry, explain the country prosperity.

The western lowland gorilla occurs throughout the country; in the 1980s-1990s, the global gorillas population of Gabon was estimated to be around 35.000 animals. However, they are signs now that many populations may have been reduced to such a low density in areas affected by hunting and Ebola that their viability is threatened.

1. Legislation

International:

- CBD, 1997
- WHC, 1986 (A World Heritage site: La Lopé NP, an MAB UNESCO site, the Ipassa Makokou reserve)
- ACCNNR, 1988
- CITIES, 1989

2. Conservation action

- Protected areas of importance to the Western lowland Gorilla:

- La Lopé NP
- Minkébé NP
- Waka NP
- Birougou NP
- Makokou Biosphere Reserve
- Monts de Cristal
- Mwagne
- Mayumba
- Gamba complex (Loango NP and Moukalaba Doudou NP)
- Wonga Wongué

- Current projects/activities with direct or potential implications for Gorillas conservation:

- ECOFAC, EU funded conservation program, has been active in Gabon since 1992, and has supported the management and development in particular for the Lopé NP.
- WWF
- Global Forest Watch
- WCS involved in Gabon since 1985, currently runs a major country program that includes activities in all national parks, institutional support to CNPN, nationwide monitoring of the bushmeat trade, new PA planning, and reduced impact logging..

3. Priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

Immediate priorities for gorillas conservation are:

Nationally:

- Develop professional management capacity in all new 13 National Parks created in 2002;
- Legislative enforcement
- Development of a national strategy for the use of wildlife resources
- Large scale information and education campaigns needed to inform citizens of the decline and endangered status of gorillas and attract their attention to the wildlife protection laws.

- Further populations surveys.

Several sites of exceptional priority for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the following (A summary of the actions needed, partners and funding needed identified at the Brazza workshop can be found in annex):

- Loango-Moukalaba-Doudou Gamba Complex

- Reinforce anti-poaching measures throughout the site especially on logging concessions in the buffer zones.
- Introduce measures to minimize risks of disease transmission and establish health-monitoring system for apes, rules for all people using the site, education for villagers and tourists and analysis of ape faecal samples.
- Develop and promote responsible great ape tourism within the broader ecotourism strategy for this site.
- Strengthen research capacity to respond to threats to apes, integrate research into site management, provide support in training, data collection and analysis and applied protocols.
- Maintain ape bio-monitoring program, including training in monitoring methods for research personnel.

- Lopé-Waka Complex

- Extend existing programs of health education and ape health monitoring to minimize risks of disease transmission between humans and apes.
- Support research & training programs and improve capacity for adaptive management, through focused research protocols and systems to evaluate the effectiveness of management for the protection of apes.
- Standardize protocols for training and implementation of monitoring programs for great ape populations.
- Improve judicial and law enforcement capacity in protected areas and logging concessions, including mobile anti-poaching brigade, specialized training for local authorities, gendarmes & magistrates.
- Develop and promote responsible great ape tourism, of already habituated gorilla groups and within the broader ecotourism strategy for this site.

Several sites of priority importance for *Gorilla g. gorilla* have been identified at the 2006 Brazzaville workshop; for each sites, actions needed to be taken, potential partners, timeframe and funding needed were identified. The sites identified are the

following (A summary of the actions needed, partners and funding needed identified at the Brazza 2006 workshop can be found in annex):

- Ivindo Complex

- Extend existing programs of health education and ape health monitoring to minimize risks of disease transmission between humans and apes.
- Develop and promote responsible great ape ecotourism at Langoué Bai from viewing platforms, and other appropriate areas within the broad ecotourism strategy for Gabon's National Park network.
- Develop on-site research capacity on great ape ecology, behavior and health, through support to the IRET research station.
- Sustain partnerships with logging companies in the buffer zone to reinforce the protection of apes and increase capacity to monitor population trends.
- Maintain ape biomonitoring program, including training in monitoring methods for research personnel.

- Belinga-Djoua Complex

- Conduct surveys of ape distribution and density throughout the site, including training in monitoring methods for research personnel.
- Implement measures to prevent fragmentation of ape habitat block, through prevention of new human settlements and deforestation along the Zadie-Belinga road.
- Raise awareness of the need for ape conservation among local actors and organization with anti-poaching missions.
- Create a great ape sanctuary within the TRIDOM landscape, based on survey results.
- Conduct applied epidemiological research on Ebola, collect fecal samples and perform autopsies of cadavers to assess impact of past Ebola epidemics and current health status of ape populations.

Internationally/transborder cooperation:

- Favour a transboundary gorillas population gestion.
- Further reinforce existing transborder agreements and initiatives, in particular:

- The Conkouati-Mayumba, Republic of Congo and Gabon.

- Develop the abilities and necessary structures to an efficient establishment of the laws and judicial process in the Conkouati-Douli national park and nearby buffer zones, including teaching park caretakers and efforts concerning transboundary preservation and policies.

- Build a research and training station on the great apes in the Conkouati Douli NP, in order to be able to lead an effective bio-watch and provide an effective deterrent power against poaching.
- Conduct basic inventories on the great apes populations and other great mammals in the Conkouati Douli NP and the buffer zone of the Mayumba NP.
- Establish constant watching systems helping to detect the appearance of zoonotic diseases.
- Establish programmes of local communities consciousness-raising, stressing particularly on the gorillas.

F. Equatorial Guinea

One of the smallest countries in Africa, the Republic of Equatorial Guinea is made of two parts: the island of Bioko, and the continental Rio Muni, bordering the Bight of Biafra between Cameroon and Gabon.

Now the third greatest oil producer in Africa, Equatorial Guinea is currently the world' fastest growing economy.

The western lowland gorilla is present in continental Rio Muni.

1. Legislation

National

The Law on Protected Areas of EG was passed in 2000, and the numbers PA increased to 13 in total, out of which 10 are located in Rio Muni:

- 2 NP (Monte Allen and Los Altos de Nsork), 5 Natural Reserves, one scientific reserve and 2 natural monuments.

Preservation issues are administered by the Instituto Nacional de Desarrollo Forestal y Gestion del Sistema de Areas Protegidas (INDEFOR), within the Ministry of Infrastructure and Forests.

International:

- CBD, 1994
- CITES, 2002

2. Conservation action

- Protected areas of importance to the Western lowland Gorilla:

- Monte Allen NP, a 2000 km² Park consisting largely of dense tropical secondary forest (selectively logged in the past), is the most effectively protected PA in the country.

- Current projects/activities with direct or potential implications for Gorillas conservation:

ECOFAC, EU funded conservation program, has been active in Equatorial Guinea since 1992. ECOFAC has supported the management of Monte Allen NP.

ZSL and Imperial College London started in 2002 a project on the sustainability of bushmeat hunting in Rio Muni, in conjunction with ECOFAC, INDEFOR, and CI.

The Durrell Wildlife Conservation Trust, Jersey and the Wildlife Research Unit of Oxford also carried out a bushmeat study in 2003-2004.

- Existing international initiatives with direct or potential implications for Gorillas conservation:

3. Priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005)

Immediate priorities for gorillas conservation are:

Nationally:

- Increase law enforcement within and around PA.
- Timber extraction must be made compatible with biodiversity conservation.
- Habitat restoration may be needed in buffer zones around the PA.
- Capacity building of PA staff is essential.
- Long term research and monitoring on gorillas distributions and populations throughout Rio Muni is necessary to reassess the situation;
- Large scale information and education campaigns needed to inform the people of the endangered status of gorillas and attract their attention to the wildlife protection law.

Internationally/transborder cooperation:

- Favour a transboundary management of gorillas populations.
- Further reinforce existing transborder agreements and initiatives, in particular:

-Campo Maan- Rio Campo preservation complex, shared with Cameroon

- Undertake a programme of application of the law and watching diseases including hiring and teaching 50 ecoguards.
- Establish and maintain the basic infrastructure for the management of Rio Campo.
- Establish and maintain a programme of gorillas bio watching.

- Explore the ecotourism capacity, conduct a feasibility study taking into account the capacity of gorillas observation.
- Develop and support a collaboration platform between the various users in what concerns the logging.

G. Democratic Republic of Congo

The western lowland Gorilla is probably extinct in its former range in the extreme west of DRC, north of the Congo River. It is thought to have become extinct prior to 1980.

The Maiombe forest, shared between the Congo, Angola and RDC, forms the southwest margin of the margin of the Congo Basin's tropical rainforest and the geographical limits of several forest-dwelling species, including western gorillas. A transfrontier initiative for the conservation of the Maiombe Forest focuses on its southern sector, between DRC, Angola, and Republic of Congo. This zone incorporates the Dimoneka and Luki Biosphere Reserves in Republic of Congo and DRC, respectively. In spite of little or no protection efforts in these reserves, coupled with high human populations, illegal exploitation activities and decades of, as yet unresolved, political and economic instability, local reports suggest that significant ape populations, particularly chimpanzees, may remain. Community-based conservation measures have been seeking to build support for a 2,000 km² zone of the Maiombe Forest in Cabinda, Angola. Information on ape status in the Maiombe Forest is scarce, and much-needed survey efforts have been hampered by civil unrest.

Ape surveys in this transfrontier region would also confirm the presence and status of western gorillas in DRC and build political support for transboundary conservation efforts in the three countries.

1 Legislation:

National

The Ministry of Environment and nature preservation and tourism is in charge of the preservation of the nature at the governmental level. The 69.041 order-law on the nature preservation of 1969 determines the national parks. The 82.002 law, 1982, determines faunas reserves, hunting reserves and lists the species that are forbidden to catch and hunt.

There are 4 main classes of protected areas in DRC:

- National Parks (9)
- Hunting reserves (1)
- Forestal reserves (7)
- Faunas reserves (2)

The Congolese Institute for Nature Preservation (ICCN), controls the whole of these areas.

A forestry act have been established in 2003, according to whom the state possesses all the forests and determines the lawful uses for each. The legal mechanisms and the zoning system should come up next. That causes a problem for the rights recognition for the persons in the forest, and there have been few consultation of the civilian community for the formulation of that code (Caldecott and Miles, 2005). The taxes for the forest exploitation are very low- 0.06 US\$/ha- the World Bank estimates that 600.000km² will be taken back as production forests. The wood extraction will be made easier by the promised by the donors, more than 270 million dollar – corresponding to more than 5000km of non-covered roads, or more than 1000km of covered roads.

Internationally:

- CMS, 1990
- CBD, 1994
- WHC, 1974

(5 sites of the World Heritage, all corrected as threatened, due to the human pressures/ conflicts and civil wars: the Garamba NP, the Kahuzi-Biega NP, the Salonga NP, the Okapi fauna Reserve and the Virunga NP. The DRC takes part in the MAB programme of the UNESCO.)

- ACCNNR, 1976
- CITIES, 1976

3 Needs and recommended priority actions:

From: Regional Action Plan for the Conservation of Chimpanzees and Great Apes in Western Equatorial Africa (Brazzaville, 2005), NGASP

The important and immediate priorities for the preservation of gorillas are:

Nationally:

All measures are applied for all Gorilla taxons in DRC .

International/Transboundary cooperation :

Favour a transboundary management of gorillas populations.

- Strengthen the initiatives and existing transboundaries agreements, for the Maiombe forest, between the Republic of Congo, Angola (Cabinda province), and the Democratic Republic of Congo.
- Establish a concerted system of preservation between Angola, Congo Republic and the DRC in order to ensure the survival of the western low altitudes gorillas, that have reached non viable figures in DRC.

- Develop the collaboration and transboundary information exchange between the three countries on the western lowlands gorilla.
- Common planification for the transboundary preservation actions between Dimonika, Concouati, and the Reserves and corridors still to create on the Bas Fleuve.
- Common integrated management for the transboundary preservation between Dimonika, Concouati and the reserves and corridors still to create on the Bas Fleuve.
- Develop a new initiative of transboundary preservation in response to the fauna and wood smuggling. A proposition has been developed by the PNUD, and should be carried on. This proposition suggests especially:
 - Conduct inventories on the gorillas populations in the Maiombe forest in Cabinda, in the DRC, and in the Republic of Cong, so as to gather counting data of gorillas, habitat status as well as collecting the genetic material.
 - Train the local communities participant and the research staff for the census methodologies and for the establishment of laws by the communities.
 - Conduct socio-economical surveys on the bush meat market and trade, the hunting pressure and local behaving toward Maiombe forest preservation.

Action plan *Gorilla gorilla diehli*

Version of 07 July 2007

Two countries are directly concerned by the action plan for the *Gorilla gorilla diehli*:

- Nigeria**
- Republic of Cameroon**

The gorillas living in the mountainous landscape between Nigeria and Cameroon at the headwaters of the Cross River were recently recognized as a distinct taxon, *Gorilla g. diehli*. The global population is estimated between 250-280 individuals, distributed across more than 10 fragmented highland sites. Those gorillas have managed to persist in a region with a dense human population, mostly because of the relative inaccessibility of their forested refuges. As the human-development activities increase, these small groups of gorillas are now dependant on conservation action (Caldecott and Miles, 2005).

The Cross River gorillas are the most northern and western of all gorilla populations. In Nigeria, they occur in the Mbe Mountains Community Forest, the Afi Mountain Wildlife Sanctuary, and the Okwangwo Division of the Cross River National Park. In Cameroon, they occur in the Takamanda Forest Reserve (contiguous with Okwangwo), the Mone Forest Reserve, and the Mbulu Hills Community Reserve.

Despite new conservation efforts, the Cross River gorilla habitat continues to regress. Given their small and highly fragmented population, and continuous threat to their survival, the subspecies has been listed as critically endangered by IUCN.

A. Nigeria

The Federal Republic of Nigeria, the most populous country in Africa, is also the leading African oil producer.

The Cross River gorilla occurs in the Mbe Mountains Community Forest, the Afi Mountain Wildlife Sanctuary, and the Okwangwo Division of the Cross River

National Park. There are probably three distinct subpopulations of Cross River gorillas in Nigeria, plus a fourth subpopulation shared with Cameroon.

There are around 80-100 gorillas remaining in Nigeria.

Large areas of potential gorilla habitats remain in southwest of the country, where gorillas still occur: these habitats provide connectivity between many of the subpopulations. To maintain these forest corridors, new PA need to be created, and local law enforcement need to be strengthened.

1. Legislation

National

All wildlife in national parks is protected by law. The Endangered Species Act of 1985 is the text through which treaties are enforceable.

International

- CMS, 1987
- CBD, 1996
- WHC, 1974
- ACCNNR, 1968
- CITES, 1973

2. Conservation action

- Protected areas of importance to the Cross-River Gorilla:

- The Mbe Mountains Community Forest,
- The Afi Mountain Wildlife Sanctuary,
- The Cross River National Park,
- The Okwangwo Division of the Cross River NP.

- Current projects/activities with direct or potential implications for Gorillas conservation:

- WCS is working on both sides of Nigeria and Cameroon borders, in collaboration with states and national government agencies, to improve conservation of gorillas. WCS runs a biodiversity research program with the Nigerian Conservation Foundation: the gorilla research and conservation component is financed by USAID and by the US Fish and Wildlife Service.

- WWF/EU project in Okwangwo Division of the Cross River NP until 1998: a gorilla census was carried out, as well as rural developments activities, education and conservation efforts.
- FFI is assisting the Cross River State Forestry Commission to develop better management practices at Afi Mountain.

- Existing international initiatives with direct or potential implications for Gorillas conservation:

- Agreement between Nigeria and Cameroon to protect the Cross River Gorilla. A collaborative partnership has been formed between the relevant government departments, WCS, FFI, GTZ and the Nigerian Conservation Foundation (NCF).

3. Priority actions:

Immediate priorities for gorillas conservation are:

Nationally:

From : Regional action plan for the conservation of the cross river gorilla (Calabar, 2006)

Strengthening of legislation

- Designate new PA with a view to maintain forest corridors between subpopulations of gorillas, including a network of protected areas and corridors and a plan for the conservation of Afi-Mbe-Okwangwo area, and including also a review of the management status for the Mbe Mountains;
- Strengthen protection and law enforcement measures for all Cross River gorilla populations;
- Maintain and expand basic research into the ecology, distribution and population biology of the gorillas;
- Coordinate research and monitoring on gorillas distributions and populations throughout Nigeria;
- Strengthen and expand conservation education and awareness programmes at all levels; large scale information and education campaigns needed to inform Nigerians of the endangered status of gorillas and attract their attention to the wildlife protection laws.
- Build up the capacity of relevant institutions in Nigeria and Cameroon (including Government departments, universities, NGOs),

- Incorporate local community needs into the development of management strategies, including the study of alternative livelihoods options,
- Reinforce collaboration amongst all stakeholders,
- Delegate a working group to formulate more detailed recommendations based on the deliberations of the 2003 Limbe Botanic Garden workshop

Research

- Maintain and increase fundamental research on ecology, gorillas populations distribution and biology.
- Coordinate the research and monitoring on the distribution and numbers of gorillas in whole Nigeria.
- Keep researchin at the genetical level of the populations.

Education and awareness

- Improve and strengthen educational programs and awareness for the preservation at all levels; information and education campaigns on a large scale should inform nigerians of the endangered species status which is of the gorilla, and draw their attention on the laws protecting the fauna. Produce a local movie, to show in schools and villages. Draw posters, circulate a punctual information.
- Increase the ability of the concerned institutions in Nigeria (including governmental departments, universities, NGO)

Communal development

- Incorporate local communities needs for gestion strategies development, including alternate incomes options studies.
- Sensitize the local communities to the benefits of the natural ressources conservation (protection of the slove basins, checking of the soil's erosion, etc)
- Reinforcement of the local abilities, in order to allow the local comunities to share responsibilities as regards ecotourism and participation to the application of the law.
- Enclosed territories: anthropogene activities limited to actual borders, through land use plannings, support emigration out of the protected areas.
- Promote a land use planning, improved agricultural practices, and identification of principles of use of shared forest resources in the adjacent areas of protected areas, in order to delimit buffer zones.

- Improve collaboration between all users.

Internationally/transborder cooperation:

Further reinforce existing transborder agreements and initiatives, in particular:

- Establish a trans-boundary protected area for the Takamanda-Okwangwo complex, in particular by upgrading the protection status of the Takamanda Forest Reserve
- Establish Cross River gorilla management committees in Cameroon and Nigeria, in order to improve communication between administrators, elaborate common strategies and improve information exchange.
- Encourage and initiate common activities between the administrators of protected areas, in order to develop cooperative preservation strategies (exchange visits, common patrols, integrated inventories).
- Develop a SIG, as a common tool for preservation.
- Seeking for further international support (UNESCO's world heritage, etc)

Actions to take in the level of areas of *G.g. dielhi* in Nigeria

1. Sanctuary of the Afi mounts (AMWS)

- Organise a workshop to solve illegal agriculture problems.
- Improve the infrastructures: watchrooms, central buildings, connection network, paths, etc
- Application of the laws, anti poaching patrols.
- Train guards for gorilla populations follow-up.
- Inventorization, cartography and securisation of habitat corridors between Afi-Mbe and AMWS-ARFR.
- Develop land use planning for the buffer zones and corridors, within the framework of communal development.
- Complete the feasibility study for a "vision tourism".
- Develop a gestion plan for the sanctuary.
- Arrange a workshop to determine a plan for fire protection.

2. The Mbe mounts

- Strengthen the Association for the preservation of the Mbe mounts (CAMM)
- Search the lasting financing options of the site.
- Develop a research station.
- Help to put in place a monitoring patrol system based on local communities.
- Arrange a workshop to determine a protection plan against fire.
- Inventorization, cartography and securisation of habitat corridors between Mbe and the Cross River National Park.
- Complete the legal demarcation and designation of the site.
- Develop a gestion plan.
- Develop land use plannings for the buffer zones and corridors, within the framework of a communal development.

3. Cross River National Park: Okwangwo Division

- Anti poaching measures improvement.
- Train the CRNP staff for the anti poaching struggle, and for gorilla populations follow-up.
- Review the relocalisation plans and its financing.
- Finalizing the Park's plan of operations.
- Review of the external landmarks of the park.
- Strengthening of the watchrooms, including the equipment.
- Planning the vision tourism, in cooperation with the Cross River State Tourism Bureau.

B. Republic of Cameroon

Compare with the other countries in the region, Cameroon has experienced relative stability in the last decades (apart from a border dispute with Nigeria over the Bakassi Peninsula, ongoing since 1992), allowing the steady development of infrastructure, agriculture and the oil and timber industries.

Cameroon is host to both the Cross-River Gorilla, *Gorilla g. dielhi*, and the Western lowland Gorilla, *Gorilla g. gorilla*.

The Diehli gorilla can be seen in the Takamanda forest that contains 4 underpopulations (3 in the national forest, that shared with Nigeria (Okwango-Takamanda), Takamanda east, Takamanda North, and out, Takamanda South), in the Mone's national forest (Mone North), in the Mbulu hills communal reserve (Upper Mbulu) as well as in the proposed sanctuary of the Kagwene and Bechati mounts.

The latest researches indicates that there might be up to 180 Dielhi gorillas surviving in the wild in Cameroon and that they are maybe more than we previously thought. Even if the discovery of new groups is encouraging, some of these groups are very isolated, and then set a big deal of preservation.

1. Legislation

National

Law n° 94/01 (1994) sets out the country's forestry, wildlife, and fishery regulations, and lists gorillas as Category A species, which are fully protected against hunting, capture, or sale, in whole or in part.

National Parks and wildlife reserves may be established under the auspices of the Direction de la Faune et des Aires Protégées (DFAP), of the Ministry of Environment and Forestry (MINEF), which is also responsible for the country's biodiversity in general.

International:

- CMS 1983
- CBD 1994
- WHC 1982
- ACCNNR 1968
- CITES 1981

2. Conservation action

- Protected areas of importance to the Cross-River Gorilla:

- Takamanda Forest Reserve
- Mone Forest River
- Kagwene Mountain Cross River Gorilla Sanctuary

- Important non-protected areas for the Cross River gorilla:

- Mbulu forest
- Bechati Fossimondi Besali forest

- Current projects/activities with direct or potential implications for Gorillas conservation:

1. WCS involved in Cameroon since 1998. Involved in program to control the illegal transportation of bushmeat.
2. Global Witness on the issue of illegal logging
3. A number of international organisations involved with research and education activities, Living Earth, Bristol Zoo, FFI, WWF...
4. Bushmeat Project, involving hunters in fauna protection in eastern Cameroon.
5. A number of awareness programs are run by national and international NGOs, and public education is a component of most current conservation and development projects.
6. The Limbé wildlife centre is a rehabilitation centre for great apes and other species.

- Existing international initiatives with direct or potential implications for Gorillas conservation:

- Agreement between Cameroon and Nigeria to protect the Cross River Gorilla. A collaborative partnership has been formed between the relevant government departments, WCS, FFI, GTZ and the Nigerian Conservation Foundation (NCF).

3. Priority actions:

Immediate priorities for gorillas conservation are:

Nationally:

From : Regional action plan for the conservation of the cross river gorilla (Calabar, 2006)

Strengthening of legislation

- Develop land-use plans for the Takamanda-Mone-Mbulu area;
- Maintain and expand basic research into the ecology, distribution and population biology of the gorillas;

- Strengthen and expand conservation education and awareness programmes at all levels; large scale information and education campaigns needed to inform Cameroonians of the endangered status of gorillas and attract their attention to the wildlife protection laws;
- Build up the capacity of relevant institutions in Cameroon (including Government departments, universities, NGOs);
- Incorporate local community needs into the development of management strategies, including the study of alternative livelihoods options,
- Reinforce collaboration amongst all stakeholders,
- Delegate a working group to formulate more detailed recommendations based on the deliberations of the workshop

Research

- Maintain and increase fundamental research on ecology, gorillas populations distribution and biology.
- Coordinate the research and monitoring on the distribution and numbers of gorillas in whole Cameroon.
- Keep researchin at the genetical level of the populations.

Education and awareness

- Improve and strengthen educational programs and awareness for the preservation at all levels; information and education campaigns on a large scale should inform cameroonians of the endengered species status which is of the gorilla, and draw their attention on the laws protecting the fauna. Produce a local movie, to show in schools and villages. Draw posters, circulate a punctual information.
- Increase the ability of the concerned institutions in Cameroon (including governmental departments, universities, NGO)

Communal Development

- Incorporate local communities needs for gestion strategies development, including alternate incomes options studies.
- Sensitize the local communities to the benefits of the natural ressources conservation (protection of the slove basins, checking of the soil's erosion, etc)

- Develop alternative sources of income in order to reduce the pressure on forests (generating-income activities, microbusinesses, lasting methods of forestial products use)
- Reinforcement of the local abilities, in order to allow the local communities to share responsibilities as regards ecotourism and participation to the application of the law.
- Enclosed territories: anthropogene activities limited to actual borders, through land use plannings, support emigration out of the protected areas.
- Promote a land use planning, improved agricultural practices, and identification of principles of use of shared forest resources in the adjacent areas of protected areas, in order to delimit buffer zones.
- Improve collaboration between all users.

Internationally/transborder cooperation:

Further reinforce existing transborder agreements and initiatives, in particular:

- Establish a trans-boundary protected area for the Takamanda-Okwangwo complex, in particular by upgrading the protection status of the Takamanda Forest Reserve
- Establish Cross River gorilla management committees in Cameroon and Nigeria
- Establish a protected transboundary area around the Takamanda-Okwangwo complex, particularly by improving the Takamanda national forest status.
- Establish committees for the gestion of the Cross-River Gorilla in Cameroon and Nigeria so as to improve communication between administrators, develop common strategies and improve information exchange.
- Support and initiate common activities between protected areas administrators, in order to develop cooperative preservation strategies (exchange visits, common patrols, integrated inventories)
- Develop a GIS, as a tool for the common conservation.
- Seeking for further international support (UNESCO's world heritage, etc)

Actions to be taken at the level of *G.g.dielhi* areas in Cameroon

1 Takamanda Forest Reserve (Suggested National Park)

- Complete the appointment of the Takamanda Forest Reserve, on the same way as the Cross River National Park.
- Complete a gestion strategy.

- Mark down the boundaries of the suggested Park.
- Strengthen the application of the law, recruit eco-guards.
- Establish a transboundary gestion committee.

2 Mone River Forest Reserve

- See again the conservation status of the Mone River Forest Reserve, on the basis of new biological and socio-economical data still to acquire.
- Elaborate a conservation strategie for the area.
- Feature again Mone River Forest Reserve boundaries.
- Strengthen the application of the law, recruit eco-guards, strengthen watching patrols.

3 Mbulu Forest

- On the basis of new biologicalal and socio-economical data still to acquire, develop a protected areas and corridors network.
- Complete the designation procedure of the both intending protected areas (Upper Mbulu and Atolo)
- Mark the boundaries of the areas and elaborate gestion strategies for the new protected areas.
- Strengthen the application of the law, recruit eco-guards, strengthen watching patrols, contract curators for the new protected areas.

4 Kagwene Mountain (Suggested Gorilla Sanctuary)

- Complete the appointment of the Kagwene Gorilla Sanctuary, and complete the area's limit.
- Elaborate a conservation strategy for the sanctuary, including measures of salvage.
- Strengthen the application of the law, recruit eco-guards, strengthen the watching patrols.
- Recruit a MINIF OF curator.
- Relocate the cattle at present in the sanctuary.

5 Bechati Fossimondi Besali Forest

- Acquire new biological and socio-economical data permitting to develop a protected areas and corridors network between Bechati and the Mone River Forest Reserve.
- Produce a land use map, review and formalize the Bechati Fossimondi Besali Forest status.
- Elaborate a preservation strategy for the area, in collaboration with the local association (Forest Community Association) and the villager's forests gestion committees, including the demarcation of the conservation area.
- Strengthen the application of the law, recruit eco-guards, strengthen the watching patrols and develop communal mechanisms of application of the law.
- Develop alternate sources of income in order to minimize the consequences of the creation of the protected area.
- Arrange workshops on the consequences of the illegal agriculture on the Gorilla's habitats.

Action plan *Gorilla beringei graueri*

Version of July 2007

The actions plan for *Gorilla beringei graueri* only concerns the Democratic Republic of Congo

Democratic Republic of Congo

One of the three largest, and one of the two most forested countries in Africa, the Democratic Republic of Congo (DRC) has had to endure several decades of poor economic policies, bad governance, and wars. It appears that the right policies are now being put in place to pave the way for a restoration of economic growth (Akitoby, B., Cinyabuguma, M., 2004).

The Eastern lowland gorilla, *Gorilla beringei graueri*, is an endemic to DRC. It has a discontinuous distribution east of the Lualaba River and west of the Albertine Rift, and from the northwest corner of Lake Edward in the north to the northwest corner of Lake Tanganyika in the South.

The rate of habitat loss for the eastern lowland gorilla is probably the highest of any of the gorilla subspecies (The Rainforest Foundation, 2004). Its range went down from 21.000km² in 1959-1960, to 15.000km² in the 1990s. In 1998, the global population was estimated around 16.900 individuals. Most gorillas lived in Kahuzi-Biega NP, where gorilla populations suffered a severe decline in the late 1990s, and are now down to only a few thousands according to some sources (Caldecott and Miles, 2005).

Although no firm figures are available, the eastern lowland gorilla seems to have been very badly affected towards the end of the 20th century.

Before the 1996-2002 conflict, eastern DRC already had some of the highest human densities in Central Africa. About a million refugees entered DRC from Rwanda in 1994, and settled in the vicinity of Virunga NP and near Kahuzi-Biega NP. Large areas of forest were cleared and the huge demand for fuelwood and food led to incursions into both PA (Caldecott and Miles, 2005). Following this, in 1996, civil war broke out in DRC. Soon after, all eastern PA were within rebel territory.

Many eastern lowland gorillas in both Kahuzi-Biega and Maiko NP were slaughtered by fighters or refugees. The high price given for coltan (columbium and tantalum) in 1998-2000 led to an increased invasion of Kahuzi-Biega NP and the Okapi Faunal Reserve by an estimated 10.000 people (Caldecott and Miles). Professional hunters

accompanied these minors and their families. Coltan was sold by warlords and rebel leaders in order to raise funds for their operations.

Following these troubled times, it is difficult to know how many eastern lowland gorilla remain. Population surveys have only been carried out in a few sites. It is certain that by 1999, the highland sector of Kahuzi-Biega NP had lost 50% of its gorilla population, including 88% of the gorillas habituated for tourism, particularly easy to shoot.

The rate of habitat loss for the eastern lowland gorilla is frighteningly high. It has already lost more than 87% of its range, and the global population is now highly fragmented. The small Masisi (28 individuals in 1998) and Mt Tshiberimu (16 individuals in 1998) populations are particularly vulnerable. Extensive agricultural encroachment took place on the boundary of Mt Tshiberimu during the refugee crisis (Butynski and Sarimento, 1995).

The country's poor infrastructure has limited so far extensive logging operations, which has effectively protected much of DRC forests. It is estimated that 5.320km² of forests is cleared each year (FAO, 2003).

1. Legislation

National

The Ministry of Environment, Nature Conservation and Tourism is the government body in charge of nature conservation. The Nature Conservation Act Ordinance-Law 69.041, 1969 defines national parks. Law 82.002, 1982, defines faunal and game reserves and lists species for which hunting and trapping are prohibited.

There are 4 main categories of PA in DRC:

- National parks (9)
- Game reserves (1)
- Forest reserves (7)
- Faunal reserves (2)

There are also areas set aside for hunting purposes, for scientific purposes. All these are managed by the Institut Congolais pour la Conservation de la Nature (ICCN). A Forest Code was established in 2003, under which the state owns all forests and defines legitimate uses for them. Legal mechanisms and zoning system are to follow. There is concern as to the fact that forest people's rights are recognised, and there has been little civil society involvement in the formulation of this code.

Forest exploitation taxes are very low, 0.06 US\$/ha; WBank estimate that 600.000km² will be zoned as production forests. Timber extraction will be facilitated by more than 270 millions dollars promised donors funds, equivalent to more than 5000km unpaved roads, or more than 1000km paved roads.

International:

- CMS, 1990
- CBD, 1994
- WHC, 1974
- ACCNNR, 1976
- CITES, 1976

There are 5 World Heritage Sites, all five listed as WHS in Danger, due to human pressure: Garamba NP, Kahuzi-Biega NP, Salonga NP, Okapi Faunal Reserve, Virunga NP. DRC participates in UNESCO's MAB Programme.

2. Conservation action

- Protected Areas of importance to Gorillas conservation:

- Kahuzi-Biega NP
- Maiko NP
- Tayna Gorilla Reserve (700km²) was set up between the Maiko and Virunga NPs by two local communities (the Batangi and Bamate Nations), recognised officially in 2002 by DRC as a "private reserve". Preliminary surveys suggest that between of 225-360 eastern lowland gorillas occur in the reserve.

- Current projects/activities with direct or potentials implications for Gorillas conservation:

- Ecotourism, and eastern lowland gorilla viewing has generated important revenues between 1986 and 1991 in Kahuzi-Biega NP (2000 visitors, 200.000 dollars). For the last decade, wars have considerably slowed things down, and the slaughter of habituated gorilla group in the park is a major setback (Caldecott and Miles, 2005).
- The Dian Fossey Gorilla Fund International supports the Tayna Gorilla Reserve community project, and is working with other local communities on seven other proposed reserves in the vicinity (Bakumbule Reserve, Usala Reserve, Bakano Reserve, Ngira'Yitu Reserve, Punia Reserve): there might be between 700 and 1400 gorillas in Tayna and these adjacent areas (Caldecott and Miles). The eight communities have formed the Union of Associations for Gorilla Conservation and Community Development in Eastern DRC (UGADEC).
- Initiative Locale pour la Sauvegarde de la Nature (ILSN) is active over the Masisi territory;
- Action Communautaire pour la Protection de la Nature Itombwe Mwenga (ACPN-IM) is involved in the Itombwe area (prior to 1998, Itombwe forest gorilla population was estimated around 1150 individuals, with a moderate hunting pressure at the time). Two nature reserves are proposed, the Monts Itombwe NR and the Mont Kabobol NR, as well as a forest reserve (Maniema) and a game reserve (Luama).

- Several research projects continued to work throughout the civil war, in particular WCS, the Max Planck Institute, and in Kahuzi-Biega NP a project on sympatric gorillas and chimpanzees, with Kyoto University.
- National organisations active in ape conservation are focusing on community projects and alternative livelihoods (POPOF, AFECOD, PAIDEK).
- WCS is currently undertaking a series of rapid assessment surveys, to try to evaluate the current status of the population.

3. Needs and recommended priority actions:

Overwhelming and immediate priorities for gorillas conservation are:

Nationally:

From: Grasp report (2002) Kinshasa, NGASP, Trilatéral DRC/Uganda/Rwanda Agreement (January 2004)

Policy and legislation

- Crisis management, damage assessment and limitation
- Reclaim parts of Kahuzi-Biega NP still outside rangers control
- Survey the KB park to estimate surviving gorilla population
- Focus on lowland sector of KB park and Kasese region
- Maintain corridor between lowland and montane populations
- Support the Itombwe forest gorillas conservation initiative
- Develop community conservation initiatives
- Rehabilitate neglected Maiko NP
- Strengthen existing laws to protect gorillas
- Improve awareness among law enforcement agencies and the courts

Designation / strengthen of AP

- Strengthen the application of the existing legislation.

- Create and keep a Reserve at Itombwe, covering Mwenga, Fizi, Walungu areas for the eastern lowland gorilla.
- Create and keep a Reserve at Walikale for the preservation of the eastern lowlands gorilla and create a corridor between Maïko and Kahuzi Biega National Parks.
- Keep a Reserve at Tayna for the preservation of the eastern lowland gorilla.
- Create and keep a Constellation of Communal Reserves for the preservation of the eastern lowlands gorilla and support for the creation of a corridor between Maïko and Kahuzi Biega.
- Create and keep a Reserve at Sarambwe for the preservation of the eastern lowland gorilla.

Education and awareness

- Develop communal projects for preservation and sustainable projects for gorillas' habitats use.
- Support cooperation agencies and developed countries to encourage preservation and awareness initiatives for the local communities for the preservation of the eastern lowlands gorilla.

Communal development

- Contribution of preservation measures for the eastern lowland gorilla to the concerned regions economical development. Reducing poverty of the riparian populations around the reserves, cooperating with the private sector and the bilateral and multilateral partners. Communal development projects will be supported, in particular road planning and development, the development of schools, health centres, waterworks, et the supply to alternate activities generating incomes.
- Promote the participation of riparian communities in the reserves' management with the supply of the private mining and forest sector and of the partners to the internal and external development.
- Re-develop progressively a respectful "Gorillas" vision tourism.
- Analyses and promotion of the cultural customs and traditions beneficial for the gorillas preservation.
- Translate the gorillas preservation's lawful wordings into the local language (swahili).

Long-term financing

- Analyse and put a long term financing system in place allowing the involved national and local NGOs in western lowlands gorillas habitat and preservation

Action plan *Gorilla beringei beringei*

July 2007 Version

The action plan for the mountain Gorilla, *Gorilla beringei beringei*, affects three countries:

- The Democratic Republic of Congo (DRC)**
- Rwanda**
- Uganda**

The mountain gorilla, *Gorilla beringei beringei*, occurs in two known populations within three countries, the Democratic Republic of Congo, Rwanda and Uganda. These two populations live almost entirely within national parks. One of them is spread around the extinct volcanoes of the Virunga Massif (375km²), which constitute a single contiguous area of mountain gorilla habitat over the three borders. These gorillas are protected officially within Virunga NP in DRC, in Volcanoes NP in Rwanda and Mgahinga Gorilla NP in Uganda. The second population is found mainly in southwest Uganda, in Bwindi Impenetrable NP (215km²), on the border with DRC (Butynski, T.M., 2001). The two areas are separated by 25 km of farmland (Sarmiento, E.E., Butynski, T.M., Kalina, J. 1996).

The three Virungas NP contain most of the surviving forests in the region. These rainforests range in elevation from 2000m to 4500m, covering a large spectrum of different natural habitats, including various montane rainforest types, bamboo stands, as well as areas with little tree cover and abundant herbaceous vegetation (McNeilage, A. 2001). The mountain gorilla in the Virungas occur at altitudes from 2000m to 3600m, with occasional excursions as high as 4100m, while those at Bwindi live between 1160m and 2600m (McNeilage, A., 2001; Butynski, T.M., 2001).

The population of mountain gorillas of the Virungas has been studied for more than 40 years, and monitored since the 1970s, making it one the best monitored of all great apes population. Fewer data are available on the Bwindi mountain gorilla's status and trends.

Data show a decline through the 70s and the 80s, with most reduction occurring in the DRC section (Weber, A.W., Vedder, A. 1983). A population estimate in 2000 suggested that the Virunga population of the mountain gorilla was between 359-395 (Kalpers, J. Williamson, E.A., Robbins, M.M. et al., 2003). The most recent census of the Virunga gorillas recorded 380 individuals (IGCP, ICCN, ORTPN, UWA, DFGFI, ITFC, WCS, DFGFE, BRD, MGVP, MPEVAN, 2004)

Between 12 and 17 Virunga mountain gorillas (5% of the population) were killed as a direct result of the military activity between 1992 and 2000 (Kalpers, J. Williamson,

E.A., Robbins, M.M. et al., 2003). Even with the declared end of the hostilities, the forests of DRC are still used as hiding places for rebel forces, leading to continuing hunting. The lowlands of the park are still inaccessible to parks staff, and the status of the gorilla is unclear (Plumptre, A.J., McNeilage, A., Hall, J.S., Williamson, E.A., 2002). Two mountain gorillas were killed in January 2007 (December 2006???)

Mountain gorillas, independently of threats originating from recent armed conflicts, are severely threatened by grazing and forest conversion to agriculture, a consequence of the explosive growth of human populations in the region over the last half century. However, despite the low numbers of gorillas and the severe threats they face overall population numbers would appear to be stable and possibly slowly increasing.

A. Democratic Republic of Congo

One of the three largest, and one of the two most forested countries in Africa, the Democratic Republic of Congo (DRC) has had to endure several decades of poor economic policies, bad governance, and wars. It appears that the right policies are now being put in place to pave the way for a restoration of economic growth (Akitoby, B., Cinyabuguma, M., 2004).

The mountain gorilla population is restricted to the southern section of the Virunga NP. It is part of the larger “Virunga population”, which include the gorillas of Volcanoes NP in Rwanda, of the Mgahinga Gorilla NP in Uganda, and of the Virunga NP of DRC. In 2001, an estimated 183 mountain gorillas were resident in DRC, about half of the global Virunga mountain gorilla population (Caldecott and Miles, 2005).

The range of the distinctive Bwindi population of mountain gorillas, which is largely restricted to Uganda is Bwindi Impenetrable Forest NP, also includes part of DRC (Butynski, T.M., 2001).

1. Legislation

National

The Ministry of Environment, Nature Conservation and Tourism is the government body in charge of nature conservation. The Nature Conservation Act Ordinance-Law 69.041, 1969 defines national parks. Law 82.002, 1982, defines faunal and game reserves and lists species for which hunting and trapping are prohibited.

There are 4 main categories of PA in DRC:

- National parks (9)
- Game reserves (1)
- Forest reserves (7)
- Faunal reserves (2)

There are also areas set aside for hunting purposes, for scientific purposes. All these are managed by the Institut Congolais pour la Conservation de la Nature (ICCN). A Forest Code was established in 2003, under which the state owns all forests and defines legitimate uses for them. Legal mechanisms and zoning system are to follow. There is concern as to the fact that forest people's rights are recognised, and there has been little civil society involvement in the formulation of this code (Caldecott and Miles, 2005). Forest exploitation taxes are very low, 0.06 US\$/ha; WBank estimate that 600.000km² will be zoned as production forests. Timber extraction will be facilitated by more than 270 millions dollars promised donors funds, equivalent to more than 5000km unpaved roads, or more than 1000km paved roads.

International:

- CMS, 1990
- CBD, 1994
- WHC, 1974
- ACCNNR, 1976
- WHC, 1974

There are 5 World Heritage Sites, all five listed as WHS in Danger, due to human pressure: Virunga NP, Garamba NP, Kahuzi-Biega NP, Salonga NP, Okapi Faunal Reserve. DRC participates in UNESCO's MAB Programme.

2. Conservation action

- Protected Areas of importance to Mountain Gorilla conservation:

- The Virunga NP (7900k²), ranges in altitude from 800m to over 5100m, and therefore contain non-forested habitats at lower and higher elevations. The NP is administered in 4 sectors, and gorillas occur only in the southern sector. The park contains several types of forested and non-forested habitats, the most widespread being the *Hagenia abyssinica* forest and *Hypericum revolutum* woodland, with a dense herbaceous and sometime grassy understory (Watts, D.P. (1998).

- Current projects/activities with direct or potentials implications for Gorillas conservation:

A large number of international, national and local Non Governmental Organisations (NGOs), Inter Governmental Organisations (IGOs) as well as national authorities have been involved in various gorilla and ape action plans, conservation initiatives and programmes, which deal with a range of issues. Some of the main activities are described below but there are countless others.

- The International Gorilla Conservation Programme was formed in 1991, by three international conservation organisations and three protected area authorities: the African Wildlife Foundation (AWF), Fauna and Flora International (FFI) and the World Wide Fund for Nature (WWF); the Institut Congolais pour la Conservation de

la Nature (ICCN), the Office Rwandais de Tourisme et des Parcs Nationaux (ORTPN) and the Uganda Wildlife Authority (UWA). Its goal is the sustainable conservation of mountain gorillas and their habitats. It aims to strengthen conservation of mountain gorillas in the Democratic Republic of the Congo, Uganda, and Rwanda, to develop a regional approach to mountain gorilla conservation, and to increase cooperation between the protected area authorities of the three mountain gorilla range states. This project has been successful in protecting mountain gorillas in the Virunga range, despite civil unrest and other setbacks. The IGCP has run a number of projects and is involved in population censuses. It works with national institutions and agencies to support conservation efforts, strengthen resources and build capacity. For example, it helps the Institut Zaïrois pour la Conservation de la Nature (IZCN) develop contacts with donor countries (Kemf and Wilson, 1997).

- The Great Apes Survival Project (GRASP) is an ambitious project of UNEP and UNESCO in collaboration with a whole range of partners which aims to lift the threat of imminent extinction faced by gorillas, chimpanzees, bonobos, *Pan paniscus*, and orangutans, *Pongo spp.* (GRASP, 2003). GRASP will develop Great Ape Survival Plans (GASPs), raise funds to implement plans and develop a global strategy to coordinate efforts. In addition, an Atlas of Great Apes is being produced to provide up-to-date information on the distribution status and conservation of the great apes, including the mountain gorilla.

- ‘Open Initiative’ has been established by UNESCO and all International Space agencies, to assist developing countries in the monitoring of world heritage sites through satellite images. A pilot project will use satellite images to provide a land cover change assessment during the last ten years – “Surveillance of Gorilla Habitat” project will focus on four existing or proposed World Heritage sites in the Albertine Rift covering border areas of DRC, Rwanda and Uganda - simple but accurate maps should be the main output of this project (UNEP, 2002).

- Other projects include that of a computer simulation of the Virungas Mountains as a virtual reserve, which is being developed for the Diane Fossey Gorilla Fund International. It aims to plot the gorillas’ movements through the virtual reserve, to show habitat preferences, to deduce the carrying capacity of the reserve and assist in the management of the national parks for the conservation of the mountain gorilla (Whitfield, 2002). It will also help keep track of human activities such as poaching and farming (Whitfield, 2002).

- In Virunga National Park, an ‘integral conservation policy’ has been in operation for over 50 years whereby savanna fires, which maintain the fire-climax vegetation, are managed by the park authorities (UNEP-WCMC, 2003b). WWF is operating a Virunga Environmental Programme to raise awareness among communities of the value of conservation (WWF, 2002). Although its activities have been disrupted on several occasions due to civil unrest, more than a million tree seedlings were planted in 1996 with the help of the United Nations High Commission for refugees (UNEP-WCMC and WWF, 2001). The International Gorilla Conservation Programme in conjunction with the Congolese park authorities have undertaken a Ranger-based Monitoring Programme (RBM) which acts as a tool for the rangers to collect information, which in turn helps to inform park management decisions.

- Ecotourism, and mountain gorilla viewing has generated important revenues: 2800 tourists visited the Virunga NP between 1986 and 1990, who between them spent US\$ 250.000 (Wilkie, D.S., Carpenter, J.F.1999). However, for the last decade, wars have considerably slowed things down, and the slaughter of habituated gorilla group in the park is a major setback (Caldecott and Miles, 2005).

- Research

The mountain gorillas have been well studied, and research is ongoing, despite a number of setbacks due to armed conflict. A number of the programmes and initiatives described in the previous section have or will have research components as an integral part of conservation actions and efforts. However, a number of other research activities are also ongoing. In addition, studies such as research into gorilla taxonomy, which are ongoing, may have serious implications for gorilla conservation, particularly in the light that the Bwindi gorilla may be genetically distinct from the mountain gorilla of the Virungas, as suggested by Sarmiento *et al.*, (1996).

- Virunga National Park was set up primarily for scientific research during Belgian colonial rule and much detailed work was carried out on specific taxa, from insects to mammals, particularly in the 1930s and 1950s (UNEP-WCMC, 2003b). IUCN/WWF Project 1941 aims to carry out a survey of the status of the gorilla and provide necessary data for their improved preservation and protection of their habitat.

3. Needs and recommended priority actions:

Overwhelming and immediate priorities for gorillas conservation are:

Nationally:

From: GRASP 2002 Kinshasa workshop, and NGASP, Trilatéral RDC/Uganda/Rwanda Agreement (January 2004).

Policy and legislation

- The mountain gorilla is a protected species in all its Range States, and so enforcement of existing legislation and provision of adequate staff and resources is essential, particularly in the face of lack of funds and inaccessibility. Enforcement of existing legislation needs to be strengthened.
- Improvement of the already existing legislation and of its enforcement.
- Tourism must be adequately regulated to ensure it is sustainable, and that disturbance and threats to the gorillas are minimal.
- Ensure that moneys generated from gorilla tourism are invested in local communities and in gorilla conservation.

- Policies to ensure the sustainable use of all natural resources should be developed which should minimise damage to gorilla habitat.
- Standards should be developed which minimise the opportunities for disease transmission from humans to gorillas, which could include a health education programme for local residents, good hygiene and waste disposal practice by researchers, tourists and officials in contact with gorillas.
- Complementary policy and legislation in range states should be developed and transboundary agreements made and implemented.
- All range States should be encouraged to participate in intergovernmental agreements such as the CBD, and with FAO.

Species and habitat protection

Even though almost all mountain gorillas live within protected areas, there are a number of areas that need consideration to ensure adequate protection of *Gorilla gorilla beringei* and its habitat. These include:

- Ensure that there is no further encroachment of agriculture into national parks.
- The effectiveness of protected areas should be strengthened and any ongoing illegal activities should be stopped.
- Rebuild and mitigate damage caused in gorilla habitat as a result of conflict and war.
- Species legislation in each country should be reviewed to ensure that adequate protection is provided to the mountain gorillas.
- Sufficient staff should be employed to ensure adequate protection from poaching and hunting, to regulate tourism and manage gorilla habitat.
- Gorilla Action Survival Plans should be developed by all national authorities.

Monitoring and research

There are a number of areas that need further research in order to ensure effective and appropriate conservation management. These include:

- The taxonomy of the mountain gorilla needs to be clarified to ensure effective conservation and management of the species and subspecies.
- The impact of selective logging, resource harvesting and agricultural encroachment in gorilla habitat should be assessed.
- Continued monitoring of the population numbers and status should be ensured.

- The impacts of tourism, including the risk of transfer of parasites and disease from humans to gorillas should be assessed.
- The setting up of a programme for the eradication of the invading species of plants in the natural habitat of the mountain gorillas.
- A continuous follow-up of the PNVA populations application of appropriate correcting measures.

Public awareness and training

- Community conservation projects and sustainable use projects in the management of gorilla habitat and gorilla tourism should be developed.
- Developed countries and aid agencies should be encouraged to support conservation initiatives for the mountain gorilla.

Communal development

- Contribution of the measures of mountain gorillas preservation in the economic development of the country by reducing riparian population's poverty near the sanctuaries and reserves in cooperation with the private sector and bilateral, multilateral partners. Communal development projects will be promoted, especially, the road plannings, schools expansion, health and waterworks centers, and the support to alternate activities generating money.
- Encourage the riparian communities in taking part in the management of the reserves and sanctuaries with the support of the private forester and mining sectors and of the internal and external development partners.
- Develop progressively a "Gorilla"-vision tourism respecting their own health security and tranquillity.
- Setting up a protection of the health and a warning-and-quick response system to counter the epidemic, mores specifically Ebola type.
- Analysis and promotion of the cultural customs and traditions beneficials for the the preservation of gorillas.
- Translate the lawful wordings for the preservation of gorillas into the local language (Swahili).

Long-term financing

- Consider and put a long-term financing system allowing to support the national and local NGOs involved in the preservation of the mountain gorillas and their habitats in place.

B. Rwanda

The mountain gorilla occurs in the Volcanoes NP, in the northwestern part of the country. It is part of the larger “Virunga population”, which include the gorillas of Volcanoes NP in Rwanda, of the Mgahinga Gorilla NP in Uganda, and of the Virunga NP of DRC.

1. Legislation

National

Gorillas are fully protected by law. The Ministry of Lands, Environment, Forestry, Water and Natural Resources (MINITERE), and in particular the Department of the Environment (DoE) is responsible for biodiversity conservation. Ordinance 18/6/73, modified by Law Decree 26/4/1973 and Law 34/2000, established the Office of tourism and National Parks (ORTPN), and governs the creation and management of PA. Forestry matters are governed by Law 47/1988.

International:

- CMS, 2005
- CBD, 1996
- WHC, 2000
- ACCNNR, 1979
- CITES, 1980

Rwanda participates in UNESCO’s MAB Programme, and has one Biosphere Reserve, the Volcanoes National Park.

2. Conservation action

- Protected Areas of importance to Gorillas conservation:

- Volcanoes NP (160km²) ranges in altitude from 2400m to 4507m. Of the total gorilla Virunga Massif population estimated at 380 in 2003, about a third are estimated to be resident in Rwanda.

- Current projects/activities with direct or potentials implications for Gorillas conservation:

In Rwanda also, a large number of international, national and local Non Governmental Organisations (NGOs), Inter Governmental Organisations (IGOs) as well as national authorities have been involved in various gorilla and ape action plans, conservation initiatives and programmes, which deal with a range of issues. Some of the main activities are described below but there are countless others.

- The Volcanoes National Park has a research zone, a tourism zone and a strict reserve zone but it does not have a buffer zone. A management plan for the park is being developed. The Mountain Gorilla Project has involved habituating four gorilla families to the presence of humans so that visitors can be guaranteed close-up views, and it is jointly financed by the African Wildlife Foundation (AWF), Flora and Fauna International (FFI), Peoples Trust for Endangered Species (PTEF) and WWF who have worked to improve tourism so as to achieve economic independence for the park (UNEP-WCMC, 2003c).
- IGCP, the International Gorilla Conservation Programme was formed in 1991, by three international conservation organisations and three protected area authorities: the African Wildlife Foundation (AWF), Fauna and Flora International (FFI) and the World Wide Fund for Nature (WWF); the Institut Congolais pour la Conservation de la Nature (ICCN), the Office Rwandais de Tourisme et des Parcs Nationaux (ORTPN) and the Uganda Wildlife Authority (UWA). Its goal is the sustainable conservation of mountain gorillas and their habitats. It aims to strengthen conservation of mountain gorillas in the Democratic Republic of the Congo, Uganda, and Rwanda, to develop a regional approach to mountain gorilla conservation, and to increase cooperation between the protected area authorities of the three mountain gorilla range states. This project has been successful in protecting mountain gorillas in the Virunga range, despite civil unrest and other setbacks. The IGCP has run a number of projects and is involved in population censuses. It works with national institutions and agencies to support conservation efforts, strengthen resources and build capacity. For example, it helps the Institut Zaïrois pour la Conservation de la Nature (IZCN) develop contacts with donor countries (Kemf and Wilson, 1997).
- The Great Apes Survival Project (GRASP) is an ambitious project of UNEP and UNESCO in collaboration with a whole range of partners which aims to lift the threat of imminent extinction faced by gorillas, chimpanzees, bonobos, Pan paniscus, and orangutans, Pongo spp. (GRASP, 2003). GRASP will develop Great Ape Survival Plans (GASPs), raise funds to implement plans and develop a global strategy to co-ordinate efforts. In addition, an Atlas of Great Apes is being produced to provide up to-date information on the distribution status and conservation of the great apes, including the mountain gorilla.
- Gorilla based tourism has been very successful, and has generated very substantial revenues to the country. It is seen as a key tool in protecting forest conservation areas in Rwanda. Tourism in the Volcanoes NP provided Rwanda around US\$ 0.5-1.0 million in 1990. Tourism was disrupted as a result of the conflict in the area, but is now increasing again. Fees were increased in 2004 to US\$ 350 per tourist per hour

contact time with gorillas. The income is spent on protecting the park, and in local development projects (Jonkman, J.,2004).

- Research

- The extensive work and research that has been conducted in and from Karisoke Research Centre has contributed vast amounts of knowledge to assist gorilla conservation. The Karisoke Research Centre has a resident director, research scientists, about 15 trackers, and camp staff. In addition, in 1978, a Veterinary Centre was established in the Virungas to monitor the health of the gorillas, in particular in response to habituation and increasing contact with humans. However, the work of both these institutions has been severely disrupted as a result of the conflict in the area. Intensive research on the mountain gorilla and its habitat has been carried out for the past 15 years, including a census in 1980 funded by WWF and New York Zoological Society. Populations have been monitored from the Karisoke Research Centre in the Virunga Volcano region of northwestern Rwanda and eastern DRC since 1967. This research has involved the collection of valuable population data and long and short term census studies (e.g. Robbins, 1995), studies on social structures (e.g. Robbins, 1996), group dynamics (e.g. Sicotte, 1995), feeding behaviour and habitat use (e.g. Byrne and Byrne, 1993; Watts, 1998) and reproduction (Robbins, 1999).

3. Needs and recommended priority actions:

Overwhelming and immediate priorities for gorillas conservation are:

Nationally:

From: GRASP 2002 Kinshasa workshop, NGASP, Trilatéral RDC/Uganda/Rwanda Agreement (January 2004).

Policy and legislation

The mountain gorilla is a protected species in all its three Range States, and so enforcement of existing legislation and provision of adequate staff and resources is essential, particularly in the face of lack of funds and inaccessibility.

- Enforcement of existing legislation needs to be strengthened.
- Improvement of the already existing legislation and of its enforcement.
- Tourism must be adequately regulated to ensure it is sustainable, and that disturbance and threats to the gorillas are minimal.
- Ensure that moneys generated from gorilla tourism are invested in local communities and in gorilla conservation.

- Policies to ensure the sustainable use of all natural resources should be developed which should minimise damage to gorilla habitat.
- Standards should be developed which minimise the opportunities for disease transmission from humans to gorillas, which could include a health education programme for local residents, good hygiene and waste disposal practice by researchers, tourists and officials in contact with gorillas.
- Complementary policy and legislation in range states should be developed and transboundary agreements made and implemented.
- Rwanda should be encouraged to become a Party to CMS and all range States should be encouraged to participate in intergovernmental agreements such as the CBD, and with FAO.

Species and habitat protection

Even though most mountain gorillas live within boundaries of protected areas, there are a number of areas that need consideration to ensure adequate protection of Gorilla gorilla beringei and its habitat. These include:

- Ensure that there is no further encroachment of agriculture into national parks.
- The effectiveness of protected areas should be strengthened and any ongoing illegal activities should be stopped.
- Rebuild and mitigate damage caused in gorilla habitat as a result of conflict and war.
- Species legislation in each country should be reviewed to ensure that adequate protection is provided to the mountain gorillas.
- Sufficient staff should be employed to ensure adequate protection from poaching and hunting, to regulate tourism and manage gorilla habitat.
- Gorilla Action Survival Plans should be developed by all national authorities.
- Improve transboundary collaboration.
- Create buffer zones around the Volcanoes National Park.
- Elaborate a viable financing plan for the Volcanoes National Park.
- Improve the effectiveness and the coordination of the anti-poaching patrols (International and regional level)
- Develop the Volcanoes NP plan of operations.

Monitoring and research

There are a number of areas that need further research in order to ensure effective and appropriate conservation management. These include:

- The taxonomy of the mountain gorilla needs to be clarified to ensure effective conservation and management of the species and subspecies.
- The impact of selective logging, resource harvesting and agricultural encroachment in gorilla habitat should be assessed.
- Continued monitoring of the population numbers and status should be ensured.
- The impacts of tourism, including the risk of transfer of parasites and disease from humans to gorillas should be assessed.
- Estimation of the gorilla's habitats carrying capacity, and the influence of climatic changes on it.

Public awareness and training

- Community conservation projects and sustainable use projects in the management of gorilla habitat and gorilla tourism should be developed.
- Developed countries and aid agencies should be encouraged to support conservation initiatives for the mountain gorilla.
- Environment education programs and public awareness should be improved.
- Make films/documentaries on the preservation.
- Organise meetings and debates in order to collaborate with the political and military authorities.
- Create tombola for social tourism promotion (allowing visiting gorillas at an affordable price)
- Create a promotional season for gorillas.

Communal development

- Contribution of the measures of mountain gorillas preservation in the economic development of the country by reducing riparian population's poverty near the sanctuaries and reserves in cooperation with the private sector and bilateral, multilateral partners. Communal development projects will be promoted, especially, the road plannings, schools expansion, health and waterworks centers, and the support to alternate activities generating money.

- Establish a micro-credit system allowing to promote in particular, efficient energy stoves, developing agroforestry, promoting local craftsmans work, promoting modern ways of beekeeping.
- Volcanoes National Park environmental economy survey.
- Encourage the riparian communities in taking part at reserves and sanctuaries management with the support of the private forest and mining sectors and of the partners of the internal and external development.
- Progressively develop a “Gorillas” vision tourism, respecting their own health and quietude.
- Put a sanitary protection system in place, and a quick response warning system to counter epidemics, and more especially the Ebola kind.
- Create a health insurance fund for the populations of the Volcanoes National Park surroundings.
- Veterinary care support for the farms around the VNP, intensive animal husbandry system support.
- Garbage collection inside the park.
- Analysis and promotions of cultural customs and traditions helping the gorilla’s preservation.
- Translate the lawful wordings for the preservation of gorillas into the local language (Kinyarwanda).

Long-term financing

- Consider and put a long-term financing system allowing to support the national and local NGOs involved in the preservation of the mountain gorillas and their habitats in place.

C. Uganda

The Republic of Uganda lies on the Equator, between the Rift Valley and the northern and western shores of Lake Victoria. Mountain gorillas occur in two localities, in Mgahinga Gorilla National park, in the Virunga Massif, at the southeast extreme of the country, on the border with DRC and Rwanda, and in Bwindi Impenetrable NP, only about 25km further north.

1. Legislation

International:

- CMS, 2000
- CBD, 1993
- WHC, 1987
- ACCNNR, 1977
- CITES, 1991

Two World Heritage sites have been listed, Ruwenzori Mountains NP and Bwindi Impenetrable NP. Uganda participates in UNESCO's MAB Programme, and Queen Elizabeth NP has been designated as a Biosphere Reserve.

2. Conservation action

- Protected Areas of importance to Mountain Gorillas conservation:

- The Mgahinga Gorilla NP is Uganda's smallest NP, with 33.7 km². It ranges in altitude from around 2400m to 4127m, and is located in the southwest of the country, on the border with DRC and Rwanda. The park was established specifically for the conservation of the mountain gorilla in 1991. Before that, it was a designated but unprotected reserve. The major threat facing the NP has been habitat loss due to human population growth. The open woodland, once a favoured gorilla habitat, has been completely settled prior to 1991. Settlers were evicted, and the habitats are regenerating.

- The Bwindi Impenetrable National Park, where the second mountain gorilla population occurs, covers an area of 331 km², and is located in the Kigezi Highlands of southwest Uganda, on the edge of the Albertine Rift Valley, and bordering DRC to the west. Some of these gorillas occur across the border in DRC as well. The park ranges in altitude from 1160m to 2607m. Bwindi gorillas live at lower elevations and are more arboreal than gorillas of the Virungas. There is a greater density of fruit-bearing trees in the gorilla habitats of Bwindi NP than in the Virungas.

- Current projects/activities with direct or potential implications for Gorillas conservation:

Prominent gorilla conservation projects have been established in selected areas in an attempt to reverse the trend of declining population sizes. These programs have pioneered the development of ecotourism, in which tourists pay to visit areas with interesting natural and cultural features. Conservationists also work with local communities to educate people about the value of the wildlife in the area, to eliminate illegal hunting, and to assist communities in developing farming and logging methods that are habitat and gorilla friendly.

- According to the Uganda Wildlife Division (2002a), Uganda has undertaken the rationalisation of wildlife Protected Areas System Plan through the 1996 to 1998 Scientific Study, and administered special enforcement programmes in the Species Range Protected Areas (Mgahinga and Bwindi Impenetrable National Parks). In addition, Site Action Programmes have been undertaken by the Government, Regional Action Plans are being developed through the International Gorilla Conservation Programme, and a National Action Plan for conservation and monitoring of the population is being initiated through the Great Apes Survival Project, funded by UNDP.

- Hamilton et al., (2000) and Tamale (1996) described schemes that have been established in Bwindi-Impenetrable National Park to try to mitigate the loss and resentment felt by local people by the establishment of the Park and the concern at the loss of access to local resources. This includes agreements which allow controlled harvest of the park's resources, receipt of some of the tourism revenue and a trust fund to be used partially for community development (Hamilton et al., 2000). Bwindi-Impenetrable National Park opened for mountain gorilla tourism in 1993 (IUCN, 1996) and since 1991 about 3,600 tourists have been visiting the park per year generating approximately US \$1 million per year (UNEP-WCMC, 2003a). An overall management plan was prepared jointly by the Institute of Tropical Forest Conservation, CARE Development through Conservation (DTC), and Uganda National Parks although a tourism-specific plan has been in use since the beginning of 1993 (UNEP-WCMC, 2003a). A management plan for Bwindi National Park has been developed, and actions for tourism development, biological inventories etc are now in place (IUCN, 1996).

- A gorilla conservation project was started in Mgahinga in 1992, which included ecological surveys, training of rangers, cessation of illegal activities and the development of tourism (IUCN, 1996).

- Gorilla based tourism has been very successful, and there are programs to share tourism revenues with local communities. There are, however, been conflicts over revenue-sharing arrangements (Report to CBD, Gov. of Uganda, 1998).

- Research

- In 1986, the Impenetrable Forest Conservation Project (IFCP) was set up at Ruhija and the site now contains a library, laboratory equipment, and accommodation and facilities for up to 60 people. It has now have been developed into the Institute of Tropical Forest Conservation to act as a field station for the Mbarara University of Science (UNEP-WCMC, 2003a). The main aims of the Institute are to systematically inventory the fauna and flora, initiate conservation programmes, and assess the population, distribution and particular requirements of the mountain gorillas (UNEP-WCMC, 2003a).

- Following the establishment of Impenetrable Forest Conservation Project in 1986, the main achievements to date are law-enforcement and also in the areas of inventory and monitoring, research, staff training, and demarcation and securing of park boundaries. In combating the threat of agricultural encroachment from the densely

populated areas surrounding the Park, the Uganda Wildlife Authority is assisted by the CARE Development Through Conservation (DTC) and MBIFCT project, which is promoting good relations with the local community via a large-scale agro-forestry programme. In addition to its out-forest work, DTC has also studied in-forest resource use and zoning strategy (UNEP-WCMC, 2003a).

- The Bwindi-Impenetrable Great Ape Project was established in 1996 and aims to achieve a better understanding of the ecological relationship between the Mountain gorillas and chimpanzees (*Pan troglodytes schweinfurthii*) that both occur in the forest. It involves the study of the behaviour, ecology and habitat of both species. A research station, Camp Kashasha, was built in 1998 (Stanford, 1999).

- In collaboration with Uganda Wildlife Authority, Makerere University runs the Makerere University Biological Field Station in Kibale National Park and Mbarara University runs the Institute of Tropical Forest Conservation in Bwindi Impenetrable National Park (Uganda Wildlife Authority, 2002b).

3. Needs and recommended priority actions:

Overwhelming and immediate priorities for mountain gorilla conservation are:

Nationally:

From: GRASP 2002 Kinshasa workshop, Trilatéral RDC/Uganda/Rwanda Agreement (January 2004).

Policy and legislation

The mountain gorilla is a protected species in all its Range States, and so enforcement of existing legislation and provision of adequate staff and resources is essential, particularly in the face of lack of funds and inaccessibility.

- Enforcement of existing legislation needs to be strengthened.
- Strengthen the application of the already existing law.
- Tourism must be adequately regulated to ensure it is sustainable, and that disturbance and threats to the gorillas are minimal.
- Ensure that moneys generated from gorilla tourism are invested in local communities and in gorilla conservation.
- Policies to ensure the sustainable use of all natural resources should be developed which should minimise damage to gorilla habitat.
- Standards should be developed which minimise the opportunities for disease transmission from humans to gorillas, which could include a health education

programme for local residents, good hygiene and waste disposal practice by researchers, tourists and officials in contact with gorillas.

- Complementary policy and legislation in range states should be developed and transboundary agreements made and implemented.
- Rwanda should be encouraged to become a Party to CMS and all range States should be encouraged to participate in intergovernment agreements such as the CBD, and with FAO.
- Continue to develop and apply transboundary agreements concerning the mountain gorillas preservation.

Species and habitat protection

Even though most mountain gorillas live within boundaries of protected areas, there are a number of areas that need consideration to ensure adequate protection of Gorilla gorilla beringei and its habitat. These include:

- Ensure that there is no further encroachment of agriculture into national parks.
- The effectiveness of protected areas should be strengthened and any ongoing illegal activities should be stopped.
- Rebuild and mitigate damage caused in gorilla habitat as a result of conflict and war.
- Species legislation in each country should be reviewed to ensure that adequate protection is provided to the mountain gorillas.
- Sufficient staff should be employed to ensure adequate protection from poaching and hunting, to regulate tourism and manage gorilla habitat.
- Gorilla Action Survival Plans should be developed by all national authorities.

Monitoring and research

There are a number of areas that need further research in order to ensure effective and appropriate conservation management. These include:

- The taxonomy of the mountain gorilla needs to be clarified to ensure effective conservation and management of the species and subspecies.
- The impact of selective logging, resource harvesting and agricultural encroachment in gorilla habitat should be assessed.
- Continued monitoring of the population numbers and status should be ensured.

- The impacts of tourism, including the risk of transfer of parasites and disease from humans to gorillas should be assessed.

Public awareness and training

- Community conservation projects and sustainable use projects in the management of gorilla habitat and gorilla tourism should be developed.
- Developed countries and aid agencies should be encouraged to support conservation initiatives for the mountain gorilla.

Communal development

- Contribution of the measures of mountain gorillas preservation in the economic development of the country by reducing riparian population's poverty near the sanctuaries and reserves in cooperation with the private sector and bilateral, multilateral partners. Communal development projects will be promoted, especially, the road plannings, schools expansion, health and waterworks centres, and the support to alternate activities generating money.
- Establish a micro-credit system allowing to promote in particular, efficient energy stoves, developing agroforestry, promoting local craftsmans work, promoting modern ways of beekeeping.
- National Park environmental economy survey.
- Encourage the riparian communities in taking part at reserves and sanctuaries management with the support of the private forest and mining sectors and of the partners of the internal and external development.
- Progressively develop a "Gorillas" vision tourism, respecting their own health and quietude.
- Put a sanitary protection system in place, and a quick response warning system to counter epidemics, and more especially the Ebola kind.
- Create a health insurance fund for the populations of the Maghina and Bwindi National Parks surroundings.
- Veterinary care support for the farms around the Maghina and Bwindi National Parks, intensive animal husbandry system support.
- Analysis and promotions of cultural customs and traditions helping the gorilla's preservation.
- Translate the lawful wordings for the preservation of gorillas into the local language (Swahili).

Long-term financing

- Consider and put a long-term financing system allowing to support the national and local NGOs involved in the preservation of the mountain gorillas and their habitats in place.