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FROM EXTINCTION

Gorilla SAFE Program

Action Plan 2019-2022

18 November 2019

by Program Leaders

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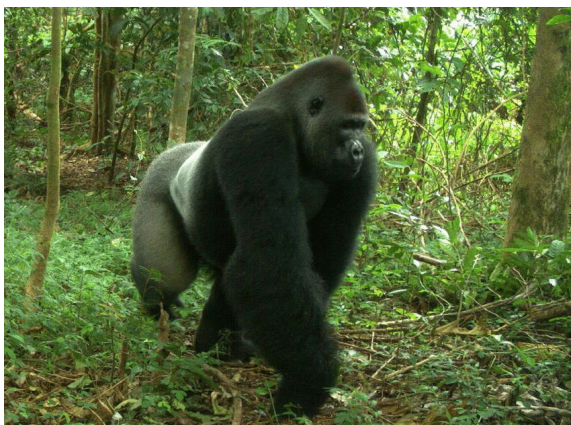
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Cross River gorilla, courtesy of WCS Nigeria



Grauer's gorilla, courtesy of Dian Fossey Gorilla Fund

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Program Goal

The goal of the Gorilla SAFE program is to secure sustainable populations of all gorilla subspecies, with a targeted emphasis on protecting the fragile Cross River gorilla populations in Cameroon and Nigeria and halting the rapid decline of Grauer's gorilla populations in the Democratic Republic of Congo.

Gorilla SAFE supports conservation of wild gorillas through on-the-ground protection of gorillas, research and monitoring, and targeted stakeholder engagement and education. Priority subspecies for this plan are Cross River gorillas (*Gorilla gorilla diehli*) and Grauer's gorillas (*Gorilla berengei graueri*) in recognition of the high likelihood of imminent extinction facing both subspecies. Cross River gorillas are the smallest population of great ape at fewer than 300 individuals and Grauer's gorilla populations have declined by nearly 80% over the past two decades.

In recognition of the threats facing the other subspecies of gorilla, this plan includes ongoing work by AZA zoos that may fall outside the identified high priority conservation objectives. However, the Gorilla SAFE program recommends that any new support for gorilla conservation be directed toward achieving the high priority conservation objectives for Cross River and Grauer's gorillas outlined herein. All actions recommended in this plan are drawn from existing multi-stakeholder action plans developed by the individuals and organizations working in the field to conserve these taxa.

We are asking zoos to consider supporting high priority projects at a minimum \$5,000/year but strongly encourage higher commitments and welcome commitments of any level that support our high priority conservation goals. Zoos contributing at the \$5,000/year level (direct or in-kind) and above to Gorilla SAFE priority conservation objectives will be recognized as **Program Partners**. Zoos supporting high priority conservation objectives at a lower level – or supporting other activities outlined in the Action Plan – will be recognized as **Program Supporters**. With 50% of gorilla facilities currently supporting conservation, we aim to demonstrate measurable positive impacts of zoos accredited by the Association of Zoos and Aquariums (AZA) on the conservation of gorillas and increase the number of AZA zoos that support field conservation over the next three years. To ensure stability for conservation programming, long-term commitments will be encouraged. Ideally, the efforts of the Gorilla SAFE program will also engage the world-wide zoo community and increase overall support for gorilla conservation.

The Gorilla SAFE program invites and welcomes all interested AZA zoos to become program partners.

Program Operational Structure

Gorilla SAFE primary conservation targets are Grauer's Gorillas (GG) and Cross River Gorillas (CRG).

Gorilla SAFE additional includes existing long-term program support for Mountain Gorilla (MG) and Western Lowland Gorilla (WLG) conservation.

ZOO/ORG	REPRESENTATIVE(S)	CONTACT INFORMATION	Primary		Other	
			GG	CRG	MG	WLG
Program Chair						
Cleveland Metroparks Zoo	Kristen Lukas, Ph.D. Director of Conservation & Science	kel@clevelandmetroparks.com 216-632-2523	X	X	X	X
Program Vice Chair						
Wildlife Conservation Society/ Bronx Zoo	Colleen McCann, Ph.D. Curator of Mammals	cmccann@wcs.org 718-220-7112	X	X	X	X
Program Partners – Steering Committee						
Disney’s Animal Kingdom	Katherine Leighty, Ph.D. Animal Care Director	katherine.leighty@disney.com 407-938-2661	X			
North Carolina Zoo	Richard Bergl, Ph.D. Director of Conservation, Education and Science Gorilla SSP Conservation Advisor: Western Gorillas	richard.bergl@nczoo.org 336-879-7602		X		
Dian Fossey Gorilla Fund	Tara Stoinski, Ph.D. President and CEO/Chief Scientific Officer Ape TAG Chair Gorilla SSP Conservation Advisor: Eastern Gorillas	tstoinski@gorillafund.org 404-624-5826	X		X	
Dallas Zoo	Benjamin Jones Senior Director of Conservation	ben.jones@dallaszoo.com 469-554-7265				
Program Partners (\$5,000+ annual contributors to Action Plan Priority Conservation Objectives)						
Coming soon...						
Program Supporters						
Coming soon...						
Wildlife Conservation Committee Liaison						
North Carolina Zoo	Richard Bergl, Ph.D. Director of Conservation, Education and Science	richard.bergl@nczoo.org 336-879-7602				

Conservation Targets

The primary conservation targets of this plan are populations of *Gorilla berengei graueri* in the Democratic Republic of Congo and populations of *Gorilla gorilla diehli* in Nigeria and Cameroon.

Status of Taxa within the AZA Community

The Western Lowland Gorilla (*Gorilla gorilla gorilla*) AZA Species Survival Plan (SSP®) is a Green Program. More than 350 western lowland gorillas live in approximately 50 AZA institutions. Gorillas are by far the most popular of the ape species among zoological institutions; to provide perspective, a population of 155 individuals would be genetically sustainable but the SSP holds more than twice that amount because of demand. Visitors to AZA institutions love to see gorillas and zoos view them as institution builders. Nearly one-fourth of AZA accredited zoos house gorillas and the Gorilla SSP has a large and diverse management group supported by a wide range of experts who serve as active advisors. Gorillas are symbolic for the conservation of African forests and the Congo basin, which is the 2nd largest remaining forest on the planet.

AZA Conservation Activities

Data from the AZA Annual Report on Conservation and Science (AZA, 2019) reveal that AZA zoos reported investing nearly \$8 million dollars to support or conduct gorilla conservation initiatives between 2013-2018:

Year	# Reporting Institutions	Amount Spent
2013	47	\$1,018,455.38
2014	51	\$1,804,825.53
2015	51	\$1,696,815.19
2016	47	\$1,697,012.15
2017	48	\$1,758,511.76
Total:		\$7,975,620.01

AZA zoos support a range of gorilla conservation projects including those that provide direct protection and monitoring of populations, address threats, and engage local communities. Lukas & Stoinski (2018) reported that at least 12 AZA zoos have already made long-term commitments to gorilla conservation projects, which means approximately 25% of the 49 AZA zoos that care for gorillas are already devoted to ensuring a future for gorilla populations. This is a great start and the Gorilla SAFE Action Plan recognizes current support for gorilla conservation as important, relevant, and foundational to leveraging the collective impact of the AZA community to increasing field conservation initiatives for the highest priority Grauer's and Cross River gorilla populations through this Action Plan.

The Gorilla SAFE Action Plan is laser-focused on protecting vulnerable populations of Cross River and Grauer's gorillas and is therefore **highlighting and targeting support to two primary field partners for this first three-year period: Wildlife Conservation Society (WCS) for Cross River gorillas and Dian Fossey Gorilla Fund (DFGF) for Grauer's gorillas.**

WCS and Cross River Gorillas

WCS is the lead non-governmental agency involved with Cross River gorilla conservation. WCS has supported Cross River gorilla research and conservation efforts in Nigeria since 1996, working in collaboration with the government and local communities. Support for Cross River gorilla conservation has four key components: law enforcement and protected area management, community conservation, conservation education and awareness raising, and alternative livelihoods. WCS was instrumental in the creation of protected areas for Cross River gorillas, including Afi Mountain Wildlife Sanctuary (2000) in Nigeria, and Takamanda National Park (2008) and Kagwene Gorilla Sanctuary (2008) in Cameroon. WCS also played a major role in organizing local communities around the Mbe Mountains, an unprotected Cross River gorilla site, to improve forest governance and protection of gorillas. Providing support to strengthen the management of these areas is the main focus of WCS in Nigeria with the goals of improving law enforcement within protected areas, and reducing levels of hunting, logging, livestock grazing and encroachment. WCS fully recognizes that it is essential to involve local people in conservation efforts to save Cross River gorillas. In the Mbe Mountains WCS is working with nine local communities to secure local land tenure rights, and in Afi Mountain Wildlife sanctuary WCS is working to create a network of gorilla guardians with the communities bordering the sanctuary. WCS conservation education outreach programs are based around school conservation clubs which includes regular field trips and exchange visits and outreach programs also includes a weekly radio drama show and the use of wildlife film shows to spread conservation messages within the area. Alternative livelihoods are promoted to reduce pressure on endangered species and the remaining forests. WCS provides training to boost local incomes and to reduce levels of dependence on the forest and on hunting. The WCS approach currently focuses on helping make existing cocoa farms more sustainable and reducing rates of forest loss in key corridor areas, as well as bee keeping, and goat husbandry. An important part of WCS's approach involves working with women's groups to improve the value of bush mango.



INAOYOM IMONG, WCS (Nigeria)

A number of other AZA institutions support or partner with WCS to protect Cross River gorillas:

The North Carolina Zoo has worked in the Cross River Landscape with WCS since 2007. NC Zoo has supported the implementation of a SMART-based monitoring system for protection activities across the landscape. This system allows WCS and their partners to readily collect, analyze, and act on data collected by rangers in the field. In collaboration with WCS, NC Zoo is also conducting genetic and epidemiological research on the Cross River gorilla to better understand the status of the population. For several years the Columbus Zoo supported environmental educators' work with local communities to raise awareness and promote conservation of critically endangered gorillas in both Cameroon and Nigeria. Cleveland Zoo and Paignton Zoo have supported work with local communities to protect Cross River gorillas in the Mbe Mountains, through support for improved law enforcement, local capacity building, and raising awareness about the status of the Cross River gorilla and other threatened species. For many years, Berggorilla & Regenwald Direkthilfe supported efforts to improve law enforcement, increase awareness and strengthen community support in the Cross River gorilla landscape including support for the radio program 'My Gorilla My Community' and work with Gorilla Guardians at Afi Mountain Wildlife Sanctuary. Palmyre Zoo and Taronga Zoo have supported Cross River gorilla conservation in Nigeria for a number of years, helping to strengthen law enforcement through ranger training and provision of essential field equipment, build local capacity and raise awareness. More recently, as a result of the current Gorilla SAFE Program, Zoo New England has committed to support the salaries of rangers in Nigeria's Afi Mountain Wildlife Sanctuary over the three years of the plan.

DFGF and Grauer's Gorilla

Since 2012, the Dian Fossey Gorilla Fund (DFGFI) has worked closely with local communities in eastern Democratic Republic of Congo (DRC) to avoid or reduce activities that lead to defaunation and deforestation in the corridor of unprotected forests that lie between Kahuzi Biega and Maiko National Parks. Their model involves employment and community development with landowners/clans who commit to conservation. Starting with seven families who had traditional ownership of 700 km² in 2012, the Nkuba Conservation Area (NCA) now involves 12 families and encompasses 1,300 km² of unique primary forest. The Fossey Fund's activities in the region include: daily monitoring of ~5 gorilla groups and an estimated 100 Grauer's gorillas; scientific research on the gorillas and larger biodiversity of the region, training the next generation of Congolese conservationists and improving the well-being of communities living around the NCA through food security, livelihood and educational programs. To protect this forest in the long term, the Fossey Fund is working with the local community to establish three Community Forest Concessions (legal recognition expected in early 2020). As a result of this long-term presence and interventions, there has been comparatively little deforestation in NCA during recent years (< 0.01% of land surface between 2010-17) and a complete halt in the killing of gorillas.



ESCOBAR BINYINYI, DFGF (Democratic Republic of Congo)

A number of other AZA institutions support or partner with DFGF to protect Grauer's gorillas: WCS first started to focus on Grauer's gorillas in the late 1950s with the pioneering early surveys by Dr. George Schaller. WCS, with the Democratic Republic of Congo government and other partners, led a series of surveys in Kahuzi Biega and neighboring forests from 1991 onwards, including the major survey published in 2016 showing the dramatic declines of the species -- 80% decline overall in 20 years due to civil unrest and hunting by illegal miners (Plumptre et al., 2016). Representatives from DFGF, WCS, and Disney's Animal Kingdom participated in the development and publication of the Conservation Action Plan for Great Apes in Eastern Democratic Republic of the Congo —Revised version – March-July 2015 (see Appendix 2). A number of AZA zoos support GRACE, a sanctuary for orphaned Grauer's gorillas which also works to support local communities living near gorilla habitat, and Gorilla Doctors, whose mission is the conservation of gorillas through veterinary medicine (see Other Activities section below).

AZA Public Engagement Activities



Zoo interest in gorilla conservation is also evident in the enthusiastic support for public engagement opportunities made available through such initiatives as World Gorilla Day. First celebrated in 2017, World Gorilla Day is celebrated annually on September 24th, commemorating the date on which Dian Fossey established Karisoke Research Center in 1967. The logos from many AZA zoos are listed on the World Gorilla Day website (worldgorilladay.org), demonstrating wide support within AZA for public engagement activities surrounding gorillas.



GORILLAS ON THE LINE

Gorillas on the Line campaign increases public awareness of threats to gorillas and empower zoos to engage local audiences in taking action for gorilla conservation. In 2019, 20 zoos hosted a campaign with the goal of reaching 10,000 people and recycling 10,000 small electronic devices. In total, the message reached more than 260,000 people and 56 groups across the country participated to collect and recycle more than 12,000 old mobile phones.

A new initiative was launched in 2018-2019 to encourage zoos to serve as centers of conservation action for gorillas through the Gorillas on the Line cell phone recycling campaign. The sharp decline of Grauer's gorillas over the past 20 years is partly due to habitat loss caused by the mining of coltan, which is used in many of our small electronic devices like cell phones. The



As gorillas move through the forest, they play an important role in seed distribution by delivering fertilized seed packets through their feces.



Conservation Status of Taxa

- Cross River gorilla (*Gorilla gorilla diehli*)
 - United States Conservation Status (www.fws.gov): Endangered
 - IUCN Conservation Status (www.iucnredlist.org): Critically endangered
- Grauer's gorilla (*Gorilla berengei graueri*)
 - United States Conservation Status (www.fws.gov): N/A
 - IUCN Conservation Status (www.iucnredlist.org): Critically endangered
- Western lowland gorilla (*Gorilla gorilla gorilla*)
 - United States Conservation Status (www.fws.gov): Endangered
 - IUCN Conservation Status (www.iucnredlist.org): Critically endangered
- Mountain gorilla (*Gorilla berengei berengei*)
 - United States Conservation Status (www.fws.gov): N/A
 - IUCN Conservation Status (www.iucnredlist.org): Endangered

Estimated population size for each subspecies of gorilla:

Species	Subspecies Common name	Subspecies Scientific name	2017 est. Population Size
Western gorillas	Cross River Gorilla	<i>Gorilla gorilla diehli</i>	<300
	Western Lowland Gorilla	<i>Gorilla gorilla gorilla</i>	~340,000
Eastern gorillas	Mountain gorilla	<i>Gorilla berengei berengei</i>	~1000
	Grauer's gorilla	<i>Gorilla berengei graueri</i>	~3,800

Recovery Plans

Relevant Conservation Action Plans (see attachments):

Subspecies	Name	Organization	Appendix
<i>G. g. diehli</i>	Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019) https://portals.iucn.org/library/node/44661	IUCN SSC Primate Specialist Group	1
<i>G. b. graueri</i>	Conservation Action Plan for Great Apes in Eastern Democratic Republic of the Congo https://portals.iucn.org/library/node/10347 —Revised version (March-July 2015)	ICCN (Institut Congolais pour la Conservation de la Nature); The Disney Conservation Fund; Arcus Foundation; Jane Goodall Institute	2
<i>G. g. gorilla</i>	Regional Action Plan for the Conservation of Western Lowland Gorillas and Central Chimpanzees (2015–2025) https://portals.iucn.org/library/node/45060	IUCN SSC Primate Specialist Group	3
<i>G. b. berengei</i>	N/A	N/A	N/A

Threats to Gorillas

Cross River gorillas: Inhabiting the rugged highlands on the Nigeria-Cameroon border, the Cross River gorilla is the most critically endangered of all the African apes and one of the most endangered primates in the world. Only about 300 Cross River gorillas remain in an area scattered across 12,000 square kilometers of habitat. The survival of these gorillas is threatened by hunting but also by habitat loss, habitat fragmentation, and disease. Due to these pressures, Cross River gorillas are found only in very remote and mountainous forests where hunters are reluctant to go and where steep slopes prevent farming. Rarely seen, video camera trap footage of the elusive Cross River gorilla (made possible by the Wildlife Conservation Society) made international news in 2012.

Grauer's gorillas: Grauer's gorillas are the only gorilla subspecies endemic to a single country—Democratic Republic of Congo (DRC). Within the past 20 years, this region contained the front lines of two major civil wars. These conflicts had a significant effect on the Grauer's gorilla population as conservation efforts were curtailed and the demand for bushmeat exploded. Today poaching and the bushmeat trade are the greatest threat to Grauer's gorilla survival, followed by habitat destruction due to population growth (slash and burn agriculture), industrial-scale agriculture, and extractive industries such as mining. The population has experienced a 75% decline in the last two decades and may face extinction through much of its range in the next decade if conservation activities are not enhanced. Conditions in DRC including extreme poverty, weak governance, non-existent infrastructure, political turmoil, and lack of education/alternative livelihoods - hinder conservation efforts.

Western lowland gorillas: High levels of hunting, habitat loss, and outbreaks of Ebola threaten this subspecies, found across six west African countries: Angola, (Cabinda enclave), Cameroon, Central African Republic, Equatorial Guinea, Gabon, and the Republic of Congo. The 2015-2025 Regional Action Plan identified 18 priority landscapes (six exceptional areas, ten important areas, one 'Ebola recovery priority', and one 'survey priority'), valuable not only for conservation of western lowland gorillas and chimpanzees, but for biodiversity in general. These areas total over 325,000 km² of priority habitat for the protection of gorillas in western equatorial Africa.

Mountain gorillas: Mountain gorillas are found in two small, non-contiguous populations in Rwanda, DRC, and Uganda. Their total population is just over 1000 individuals (2nd smallest of all the great apes); 604 live in the Virunga massif area of DRC, Rwanda and Uganda and the other 400 live in Bwindi Impenetrable Park in Uganda. After reaching a population low in the 1970s, both populations have been steadily increasing, showing that the intensive conservation efforts in this region are working (mountain gorillas were down-listed to Endangered in 2018). However, the subspecies faces many threats including habitat loss, disease, overcrowding, and poaching. The area where they live has one of the highest human population densities in Africa. More than 70% of the Virunga population and 50% of the Bwindi population is habituated to human presence, which makes them especially vulnerable to poaching. Thus, concerted conservation efforts of the last four decades must be continued.

Work Plan

Action Plan Strategy: Increase the protection of Cross River gorillas and Grauer's gorillas by engaging more AZA zoos in gorilla conservation support.

CROSS RIVER GORILLAS

High Priority Conservation Objectives: *Gorilla gorilla diehli*

Objective	Recovery Plan Relevance
1. Increase patrolling efforts for all Cross River gorilla subpopulations to enhance current protection measures.	Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019); Strategic Priority: Strengthen law enforcement at all sites
2. Use research and monitoring to assess threats and measure effectiveness of conservation interventions.	Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019); Strategic Priorities: Implement threat monitoring framework; Conduct gorilla distribution and abundance surveys; continue long term research;
3. Reduce national and international trade in wildlife by combating illegal wildlife trade in Nigeria.	Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019); Strategic Priority: Wildlife trade focused program established in Nigeria

High Priority Public/Stakeholder (*In situ*) Engagement Objective: *G. g. diehli*

Objective	Recovery Plan Relevance
1. Conduct community/public awareness-raising activities.	Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019); Strategic Priority: Further develop and expand conservation education and outreach programs

GRAUER'S GORILLAS

High Priority Conservation Objectives: *Gorilla berengei graueri*

Objective	Recovery Plan Relevance
1. Ensure viable populations of Grauer's gorillas living in community forests through direct protection.	Conservation Action Plan for Great Apes in Eastern Democratic Republic of Congo (July 2015); Strategy 2: Identify, assess, and monitor priority populations to ensure their protection.
2. Identify, assess, and monitor priority populations to ensure their protection.	Conservation Action Plan for Great Apes in Eastern Democratic Republic of Congo (July 2015); Strategy 2: Identify, assess, and monitor priority populations to ensure their protection.

High Priority Public/Stakeholder (*In situ*) Engagement Objective: *G. b. graueri*

Objective	Recovery Plan Relevance
1. Decrease market demand for bushmeat through increasing food security in human populations living in Grauer's gorilla habitat.	Conservation Action Plan for Great Apes in Eastern Democratic Republic of Congo (July 2015); Strategy 3, Obj 3: Raise awareness and involve the population in conservation; decrease of consumption of bushmeat by target population.
2. Assess/implement community-level sustainable livelihood choices to benefit gorillas.	Conservation Action Plan for Great Apes in Eastern Democratic Republic of Congo (July 2015); Strategy 3, Obj 3: Raise awareness and involve the population in conservation; decrease of consumption of bushmeat by target population.

GORILLAS OVERALL

Public Awareness and Communication (*Ex situ*) Objectives

Objective
1. Increase by 25% the number of AZA zoos and aquariums that participate in World Gorilla Day by 1 Sep 2022.
2. Increase to 100% the number of AZA zoos housing gorillas that incorporate gorilla conservation messaging digitally, on grounds, or in programming by 1 Sep 2022.
3. Develop and maintain a website on Cross River gorillas in English and French.
4. Develop educational materials specific to Cross River and Grauer's gorillas.

Funding Objectives

Objective
1. Increase by 25% the amount of funds directed to Grauer's and Cross River gorilla conservation.
2. Maintain current levels of AZA support for other CRG, WLG, GG, and MG field conservation activities.

Gorilla SAFE Member-Sponsored Species Program 3 Year Strategy (2018-2021)

High Priority Conservation Objectives: Cross River Gorillas (*Gorilla gorilla diehli*)

Cross River Gorillas (<i>Gorilla gorilla diehli</i>)					
Strategic Objective 1. Secure all Cross River gorilla subpopulations by fully funding enhanced protection measures at three sites over three years.					
Rationale: While many Cross River gorilla subpopulations occur within protected areas, law enforcement within these is weak due to inadequate training and support to rangers to carry out anti-poaching patrols. As a result, threats such as hunting and habitat destruction remain high. By providing training and field equipment and supplies to support ranger patrols, and improving patrol planning, monitoring, and effectiveness through the use of SMART we will improve the protection of Cross River gorillas and secure their habitat.					
Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Provide increased and consistent funding for patrols (i.e., operational costs) at all Cross River gorilla sites (3 sites) in Nigeria.	i) Four patrols completed per month per site. ii) Hunting pressure (measured as encounter rate of signs such as wire snares and expended shotgun cartridges) decreased across the landscape. iii) Stable or increasing wildlife populations iv) sustained or increased measures of patrol effort (time and distance)	Yr 1-3	NC Zoo	WCS	\$432,000 (\$48,000/site/yr)
1.2 Provide consistent salary support for rangers at Nigeria's Afi Mountain Wildlife Sanctuary.	i) Salaries paid to rangers.	Yr 1-3	ZNE	WCS, Afi Mountain Community Rangers	\$44,850 (\$14,850/yr)
1.3 Provide training for rangers in effective conservation law enforcement techniques.	i) Training workshops conducted ii) Improved law enforcement activities (increased arrests, detection/interdiction of illegal activities)	Yr 1-3 One workshop conducted per year		WCS	\$30,000 per week-long training
1.4 Support SMART-based law enforcement monitoring through the provision of mobile devices, computers, and other IT equipment.	i) Field hardware replaced at regular intervals/staff provided with requisite equipment ii) Monitoring data reliably collected for all patrols	Yr 1-3 Annual provision of new equipment	NC Zoo	WCS, Nigerian National Park Service,	\$7,000 annually (\$21,000)

	iii) Ranger-collected data analyzed and reported on			Conservation Association of the Mbe Mountains, Afi Mountain Community Rangers	
1.5 Provide basic equipment for rangers, such as boots, tents, backpacks, uniforms, etc.	i) Basic field equipment such as boots, tents, backpacks, and uniforms purchased to support law enforcement patrols. ii) Teams are always equipped with required gear	Yr 1&3		WCS	\$43,500 (21,759/yr)
Strategic Objective 2. Use research and monitoring to assess threats and measure effectiveness of conservation interventions by conducting surveys at three sites over three years. Rationale: <i>Understanding the abundance and distribution of gorillas and other wildlife as well as human threats will help guide conservation planning and future evaluation of the effectiveness of conservation interventions.</i>					
Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
2.1 Conduct landscape-wide reconnaissance survey of threat, gorilla distribution and wildlife abundance.	i) Survey plans in place for each site ii) Surveys conducted at each site	Yr 1: Plan surveys Yr 2: Conduct surveys Yr 3: Conduct surveys		WCS	\$30,000 per site
2.2 Monitor habitat loss, particularly in corridors	i) Analysis of satellite land cover data conducted at the end of the project to assess forest cover change in corridor areas compared to baseline. ii) Land cover change analysis report produced and circulated.	Yr 3			\$10,000
2.3 Establish long-term veterinary health monitoring for Cross River gorillas across the landscape	i) Support ongoing analysis of gorilla fecal samples to assess Cross River gorilla health risk. ii) Support development of health monitoring protocol based results of analysis.	Yr 1-3	NC Zoo		\$10,000
Strategic Objective 3. Ensure conservation strategies for Cross River Gorillas are up to date by publishing a new Action Plan by 2021. Rationale: <i>Produced in 2014, the current Action Plan for the conservation of the Cross River gorilla expires in 2019. An up to date plan is needed to guide conservation efforts in the landscape.</i>					

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
3.1 Conduct workshop to revise and update IUCN Action Plan for Cross River gorillas	i) action plan published and disseminated	Yr 1: Action plan meeting conducted Yr 2: Action plan published	NC Zoo	WCS	\$50,000 (action plan workshop) \$7,000 (publication of plan)

High Priority Public/Stakeholder (*In situ*) Engagement Objective: *G. g. diehli*

Cross River gorillas (<i>Gorilla gorilla diehli</i>)					
Strategic Objective 1. Conduct community/public awareness-raising activities across the landscape over three years. Rationale: <i>A landscape-wide education strategy will allow better coordination and targeting of outreach programs in the landscape to raise public awareness and strengthen local support for Cross River gorilla conservation.</i>					
Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
3.1 Work with WCS-Nigeria country program team to develop landscape-wide strategy for community/public awareness raising.	i) Expert identified and supported to assist development of strategy. ii) Workshop organized to develop a landscape-wide education and awareness strategy.	Yr 1-2		WCS	\$8,500
3.2 Support existing awareness raising activities and implement activities from landscape-wide strategy (3.1).	i) Two field trips for school children organized per quarter per site Support provided for film shows in communities around Cross River gorilla sites iii) Four exchange visits between conservation clubs organized per year iv) One teachers' training workshop organized per year	Year 1-3 Annually		WCS	\$51,000 (\$17,000/yr)
3.3 Produce educational materials for use in community/public awareness programs.	i) 4,000 customized notebooks, posters and T-shirts produced and distributed	Year 1-3 Annually		WCS	\$27,000 (\$9,000/yr)

High Priority Conservation Objectives: Grauer's Gorillas (*Gorilla berengei graueri*)

Grauer's Gorillas (*Gorilla berengei graueri*)

Strategic Objective 1. Ensure viable populations of Grauer's gorillas living in the Nkuba Conservation Area by expanding direct protection and monitoring teams over the next three years.

Rationale: *The majority of Grauer's gorillas live outside of protected areas. By working with local communities to protect these forests, we both conserve Grauer's gorillas and their habitat but also help maintain a corridor between two national parks. Exchanges between national park and community conservationists builds capacity but also trust between people working within different models of conservation.*

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Provide increased and consistent support for protection and monitoring teams in community forest, specifically Nkuba Conservation Area	i) Consistent funding for protection and monitoring teams in the Nkuba Conservation Area (currently 6 teams) ii) New funding to add 7 th protection team iii) teams on patrol 85% of days monitoring ~5 gorilla families of ~75-100 individuals	Yr 1: Add 2 zoos Yr 2: Add 3 zoos Yr 3: Add 2 zoos	Cleveland M Zoo	DFGFI	\$20k per team/year
1.2 Provide basic equipment for field staff, such as boots, tents, backpacks, uniforms, etc. and food for while on patrols	i) Consistent funding for protection and monitoring teams in the Nkuba Conservation Area (currently 6 teams) ii) New funding to add 7 th protection team iii) teams on patrol 85% of days monitoring ~5 gorilla families of ~75-100 individuals	Yr 1: Add 2 zoos Yr 2: Add 3 zoos Yr 3: Add 2 zoos		DFGFI	\$7.5k per team
1.3 Provide opportunities for cross training through staff exchanges between National Parks and community conservation areas	i) Support one training each year for three years	Yr 1: Add 1 zoo Yr 2: Add 1 zoo Yr 3: Add 1 zoo		DFGFI	\$7.5k per training

Strategic Objective 2. Identify, assess, and monitor priority populations to ensure their protection.

Rationale: *Need to know where healthy Grauer's populations are located within the landscape so that protection efforts can be implemented.*

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
2.1 Conduct surveys in new areas to identify viable Grauer's gorilla populations in priority spots	i) Support small scale field surveys in both national parks as well as community forests	Yr 1: Add 1 zoo Yr 2: Add 1 zoo Yr 3: Add 1 zoo		DFGFI/WCS	\$10-\$25k per survey (depends on size of area being surveyed)

High Priority Public/Stakeholder (*In situ*) Engagement Objective: *G. b. graueri*

Grauer's gorillas (*Gorilla berengei graueri*)

Strategic Objective 1. Decrease market demand for bushmeat through increasing food security in human populations living in Grauer's gorilla habitat by supporting and expanding existing Fossey Fund food security programs in three years.

Rationale: Data collected by the Fossey Fund show that 70% of families in the Nkuba region rely on bushmeat for protein. These projects aim at providing alternative sources of meat as well as increased plant protein to decrease hunting pressure.

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Support food security by developing fish farming programs	i) expand from 25 to 55 families ii) % of families purchasing bushmeat at markets declines by 25% annually; eliminate primates/great apes for sale as bushmeat iii) improvement in Human Well-Being Index	Yr 1: +10 families Yr 2: +10 families Yr 3: +10 families		DFGF	Year 1: \$10k Year 2: \$12.5k Year 3: \$15k Total: 37.5k
1.2 Support food security by promoting and training small animal husbandry programs	i) Increase from 30 to 60 families ii) % of families purchasing bushmeat at markets declines by 25% annually; eliminate primates/great apes for sale as bushmeat iii) improvement in Human Well-Being Index	Yr 1: +10 families Yr 2: +10 families Yr 3: +10 families		DFGF	Year 1: \$7.5k Year 2: \$10k Year 3: \$12.5k Total: \$30k
1.3 Support food security by developing small scale agricultural programs	i) Increase from 30 to 75 families ii) % of families purchasing bushmeat at markets declines by 25% annually iii) improvement in Human Well-Being Index	Yr 1: +15 families Yr 2: +15 families Yr 3: +15 families		DFGF	Year 1: \$5k Year 2: \$7.5k Year 3: \$10k Total: \$22.5k
1.3 Gather relevant species-specific biological data and develop a hunting calendar for non-endangered species based on biological parameters (e.g. reproductive schedule, sustainable offtake levels)	i) Decreased by 50% presence of antelope seen in bushmeat markets outside of hunting period by end of 3-year period	By 2022		DFGF	\$20k

Strategic Objective 2. Assess/implement community-level sustainable livelihood choices to benefit gorillas by supporting and expanding DFGF community initiatives over three years.

Rationale: Congo has the second highest level of people living in extreme poverty—77% live on less than \$1.90 per day. Livelihood initiatives will aim to improve overall standard of living for people who are involved in conservation and also decrease reliance on hunting as a source of income.

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
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1.1 Support micro-credit programs for women's cooperatives.	i) include 150 women	Yr 1: +50 women Yr 2: +50 women Yr 3: +50 women		DFGFI	\$10k.
1.2 Scale up established fish farming and small animal husbandry programs so that they move beyond subsistence food support and become income producing	i) include 50 families	Yr 1: Yr 2: Yr 3: 50 families		DFGFI	\$25k in year 3

GORILLAS (Overall)

Public Awareness and Communication (<i>Ex situ</i>) Objectives					
Strategic Objective 1. Increase by 25% the number of AZA zoos and aquariums that participate in World Gorilla Day by 1 Sep 2022. <i>Rationale: Increasing public awareness of gorilla conservation issues in the USA will improve fundraising capacity and help build capacity for sustained conservation efforts.</i>					
Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Celebrate World Gorilla Day annually	i) Gorilla conservation efforts by AZA zoos promoted through World Gorilla Day ii) Track number of AZA institutions celebrating World Gorilla Day annually and increase number of participating zoos by 25% by 2021	Yrs 1-3. Annually	All 49 Gorilla SSP zoos, Other AZA zoos	All	In-kind support from AZA partners
1.2 Implement campaign to increase recycling of small electronics	i) At least 50% of zoos holding gorillas will participate in the campaign ii) 10,000 small electronic devices will be recycled on an annual basis	Yrs 1-3. Annually	50% Gorilla SSP zoos, other AZA zoos and aquariums	N/A	In-kind support from AZA partners
Strategic Objective 2. Increase to 100% the number of AZA zoos housing gorillas that incorporate gorilla conservation messaging digitally, on grounds, or in programming by 1 Sep 2022. <i>Rationale: Increasing public awareness of gorilla conservation issues in the USA will improve fundraising capacity and help build capacity for sustained conservation efforts.</i>					
Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Connect zoo visitors with gorilla conservation issues year-round	i) Messaging for zoo exhibits developed and updated with gorilla conservation information ii) Based on institution, add gorilla conservation messaging to gift shops iii) Continue to develop concepts to connect zoo guests to gorilla conservation	Yr 1-3. Annually: provide list of conservation messaging materials to SAFE partner programs	All 49 Gorilla SSP zoos, Other AZA zoos	All	In-kind support from AZA partners
1.2 Develop key messages for zoos	i) Complete key messages document ii) Post on Gorilla SSP website and AZA/Gorilla SAFE website	Year 1	CMZ Dallas Zoo Shedd Aq Zoo Atlanta	N/A	In-kind support from AZA partners
Strategic Objective 3. Develop and maintain a website on Cross River gorillas in English and French					

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Create a website on Cross River gorillas in English and French for use by the public and conservation partners	i) Messaging for zoo exhibits developed and updated with gorilla conservation information ii) Based on institution, add gorilla conservation messaging to gift shops iii) Continue to develop concepts to connect zoo guests to gorilla conservation	Yr 1-3. Annually: provide list of conservation messaging sample materials to Gorilla SAFE partner programs		WCS and NCZ	In-kind support from AZA partners

Strategic Objective 4. Develop educational materials specific to Cross River and Grauer's gorillas by 1 Sep 2022.

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Develop key messages and strategies for communicating CRG and GG	i) Key messages will be finalized and shared with all AZA zoos ii) Implementation strategies will be developed and shared	Yr 1-3. Annually: provide list of conservation messaging sample materials to Gorilla SAFE partner programs		WCS and NCZ	In-kind support from AZA partners

Funding

Funding Objective 1. Increase by 25% the amount of funds directed to Grauer's gorilla and Cross River gorilla conservation by 1 Sep 2022.

Rationale: Increase funding support for gorilla conservation in the USA will increase in-country conservation impact.

Action	Metrics	Timeframe	AZA Zoos	Field Partners	Budget
1.1 Attract six new Gorilla SAFE partner zoos by 2022	i) At least six additional AZA institutions will sign and submit Program Partner Statements of Institutional Support to participate in Gorilla SAFE	Yr 1: 2 new zoos Yr 2: 2 new zoos Yr 3: 2 new zoos	TBD	n/a	n/a
1.2 Increase annual AZA funding support for gorilla conservation	i) Track Annual Report on Conservation and Science (ARCS) of AZA contributions to gorilla conservation, with goal of increasing both funding to gorilla conservation and number of zoos supporting gorilla conservation	Yr 1-3. Annually	TBD	n/a	n/a
1.3 Create a fundraising mechanism surrounding rangers (protection) for use on WoGoDay and World Ranger Day	i) New mechanism in place and used successfully to raise funds	By 2022	TBD	n/a	In-kind support from AZA partners

OTHER ACTIVITIES:

A secondary goal for the Gorilla SAFE program is to maintain existing long-term AZA zoo support for gorilla conservation programming for all four sub-species. Activities included here may not directly address the Gorilla SAFE conservation action plan goals outlined above but all must meet the AZA definition of field conservation and tier up to the relevant recovery plan.

WESTERN GORILLAS			
Sub-species	Project	AZA zoos	Field Partners
Cross River gorilla	WCS Cross River gorilla programs: Core and/or project support for activities not listed in Gorilla SAFE Action Plan	WCS	WCS
Western lowland gorilla	WCS Western lowland gorilla programs: Core and/or project support	WCS	WCS
Western lowland gorilla	Goulougo Triangle Ape Project: Core and/or project support	Columbus Zoo & Aquarium Indianapolis Zoo Lincoln Park Zoo	GTAP
Western lowland gorilla	Mbeli Bai Project: Core and/or project support	Cincinnati Zoo & Botanical Garden Columbus Zoo & Aquarium Wildlife Conservation Society Woodland Park Zoo	Mbeli Bai Project in the Nouabale-Ndoki National Park
Western lowland gorilla	Limbe Wildlife Center: Core and/or project support	Columbus Zoo San Diego Zoo	LWC
Western lowland gorilla	Ape Action Africa: Core and/or project support	Toronto Zoo	AAA
EASTERN GORILLAS			
Sub-species	Project	AZA zoos	Field Partners
Grauer's gorilla	Gorilla Rehabilitation and Conservation Education Center (GRACE): Core support and/or project support	Dallas Zoo Detroit Zoo Disney's Animal Kingdom Houston Zoo Los Angeles Zoo Nashville Zoo	GRACE
Grauer's gorilla	"Reverse the Decline, Increase the Time" initiative for great apes; funding for Grauer's gorilla conservation action planning	Disney's Animal Kingdom	AWF, DFGF, FFI, JGI, WCS

Grauer's gorilla	WCS Grauer's gorilla programs: Core and/or project support for activities not listed in Gorilla SAFE Action Plan	WCS	WCS
Grauer's gorilla	Strong Roots: Core and/or project support	Columbus Zoo & Aquarium	Strong Roots
Mountain gorilla & Grauer's gorilla	Gorilla Doctors: Core and/or project support	Buffalo Zoo Columbus Zoo & Aquarium Detroit Zoo Houston Zoo Maryland Zoo	Gorilla Doctors
Mountain gorilla	Dian Fossey Gorilla Fund (DFGF): Core and/or project support	Birmingham Zoo Cleveland Metroparks Zoo Columbus Zoo & Aquarium Dallas Zoo Disney's Animal Kingdom Houston Zoo Indianapolis Zoo Louisville Zoo Oklahoma City Zoo San Diego Zoo Zoo Atlanta	DFGF
Mountain gorilla & Grauer's gorilla	International Gorilla Conservation Programme: Core and/or project support	Columbus Zoo & Aquarium	IGCP
Mountain gorilla	Bwindi Apes Conservation Education Project: Community outreach in conservation education	Cleveland Metroparks Zoo North Carolina Zoo	Max Planck
Mountain gorilla	Conservation Heritage – Turambe: Core and/or project support	Houston Zoo	CHT
Mountain gorilla	WCS Mountain gorilla program: Core and/or project support	WCS	WCS

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List of Appendices

- Appendix 1. Revised Regional Action Plan for the conservation of the Cross River gorilla (2014-2019)
- Appendix 2. Conservation Action Plan for Great Apes in Eastern Democratic Republic of the Congo —Revised version (March-July 2015)
- Appendix 3. Regional Action Plan for the Conservation of Western Lowland Gorillas and Central Chimpanzees (2015–2025)