

MALAWI Giraffe Conservation Action Plan

2024-2028



Recommended citation DNPW. 2023. Malawi Giraffe Conservation Action Plan 2024-2028. Department of National Parks and Wildlife, Lilongwe, Malawi. Copyright © 2023 Department of National Parks and Wildlife Matamando House, Convention Drive City Centre PO Box 30131 Lilongwe 3 Malawi

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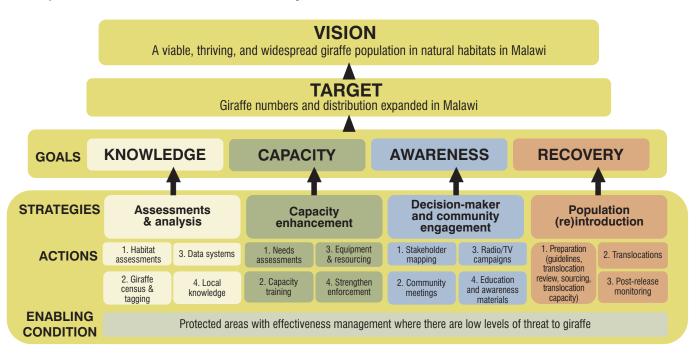
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EXECUTIVE SUMMARY

The giraffe population in Malawi is critically small, with an estimated 34 individuals, and has low genetic diversity. These giraffe live in four enclosed protected areas in the southern part of Malawi. These (re)introduced populations are geographically isolated from one another, and with limited habitat available, there is no chance for giraffe to naturally recover. Reintroductions are a powerful strategy for species restoration but require a clear understanding of the ecology and threats to the species, and highly skilled personnel to conduct the translocations, monitoring and management of those species. However, such knowledge and capacity does currently not exist in Malawi. Positively, there is a network of large and effectively managed protected areas in the country, creating an opportunity for giraffe restoration. These areas have managed threats that extirpated giraffe in Malawi historically. Consequently, there is a high degree of optimism within the Department of National Parks and Wildlife (DNPW) for the giraffe population to be actively recovered in the country. While protected areas operate through general management plans, it is important to develop targeted action plans for those species with high value or of an endangered status. Consequently, it is critical timing to develop an action plan for giraffe in Malawi.

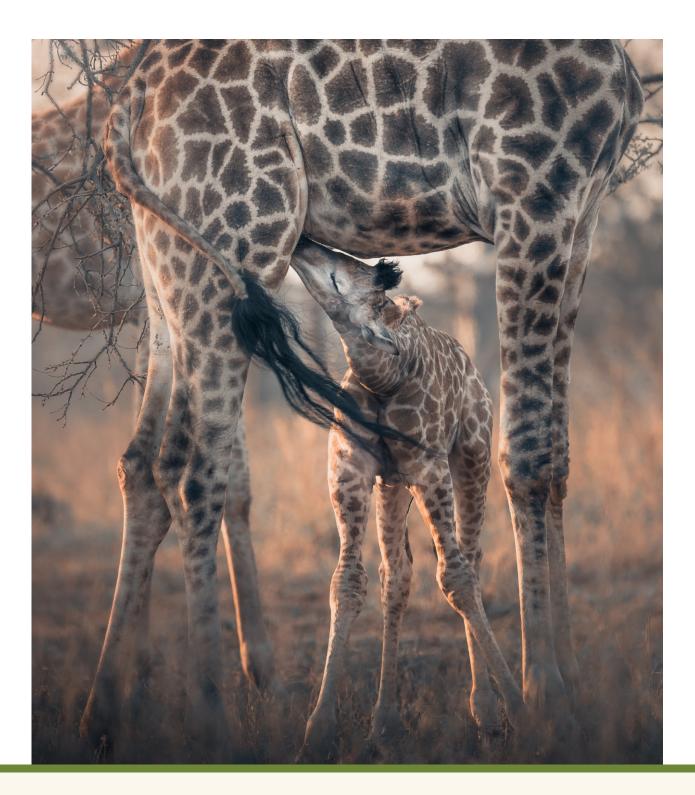
This document is the first-ever Malawi Giraffe Conservation Action Plan 2024-2028. This plan provides a sound framework for achieving long-lasting, wide-ranging, and high impact for giraffe in the country. This impact is detailed in the optimistic vision of "a viable, thriving, and widespread giraffe population in natural habitats in Malawi", where the plan has a target to "expand giraffe numbers and distribution in the country. Four clear goals and four strategic objectives will be foundational in realising this vision, achieving the targets, and overcoming threats to giraffe. These goals and objectives centre around filling critical knowledge gaps relating to giraffe, while developing and enhancing capacity for giraffe management. The goals also target raising awareness with decision-makers and communities to unlock the opportunities for giraffe reintroduction efforts while enhancing wide-ranging support for their conservation. These goals culminate in ensuring there is a coordinated effort to establish sub-populations in identified sites through reintroduction. This plan outlines high-level activities While the overarching threat to giraffe in Malawi is habitat loss and fragmentation, this plan deliberately does not include a strategic objective to alleviate that threat as this is unlikely to be feasible in Malawi. Rather, this plan realises the need to optimise the opportunity to restore giraffe in effectively managed protected areas that have been highly successful in reducing threats to many species. In this way, the giraffe-vacant habitats in these protected areas can be capitalised on to rapidly restore sub-populations. Consequently, a fundamental aspect of this plan is in assessing the feasibility of suitable reintroduction sites that includes criteria on giraffe habitat quality, protected area management effectiveness, threat levels and availability of resources for monitoring giraffe.

This 5-year plan is the first in a long-term vision to establish a viable giraffe population in Malawi, by conducting initial coordinated reintroductions. Subsequent 5-year plans should centre around further expansion and maintenance of the (re-)introduced giraffe population through active metapopulation management.nd indicators for each strategic objective to track implementation and monitor success towards the target.



ACKNOWLEDGEMENTS

The compilation of the Malawi Giraffe Conservation Action Plan 2024-2028 was a collaborative effort, spearheaded by the Department of National Parks and Wildlife (DNPW) with support from the Giraffe Conservation Foundation (GCF), facilitation by Conservation Alpha, and input from other local experts and organisations. The guidance, contributions, and support received during the process are acknowledged and highly appreciated. During the development of this Action Plan, local, regional, and international consultations with stakeholders and partners in wildlife conservation and management were conducted. The DNPW is grateful to all the stakeholders for their input towards the development of this Action Plan.



ACRONYMS AND ABBREVIATIONS

AP	African Parks
BiK-F	Senckenberg Biodiversity and Climate Research Centre
CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
DNPW	Department of National Parks and Wildlife
GCF	Giraffe Conservation Foundation
GP	Game Park
IUCN	International Union for Conservation of Nature
NGO	Non-Governmental Organisation
NP	National Park
PA	Protected Area
PPF	Peace Parks Foundation
SO	Strategic Objective(s)
WR	Wildlife Reserve

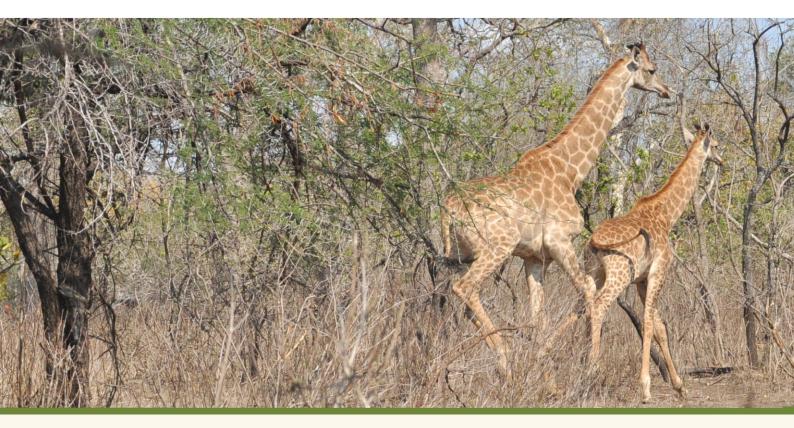
FOREWORD

Malawi is endowed with a rich biodiversity characterized by spectacular landscapes, exceptional natural beauty and the diverse cultural heritage which are very central to the socio-economic development of the country. The vision of the Malawi 2063 long term socio-economic development agenda is to transform the country into a wealthy and self-reliant industrialised upper middle-income country by the year 2063. Environmental sustainability is one of the key enablers to catalyze the attainment of this vision. Biodiversity is an important natural heritage that has potential for ecotourism development and calls for the effective conservation and management of wildlife in protected areas and outside natural habitats. The Giraffe (Giraffa spp.) which is the tallest living land animal and the largest ruminant in the world occurs in Malawi.

The Malawi Giraffe Conservation Action Plan (2024-2028) which is a five-year plan is the first ever national action plan for giraffe conservation in the country. The plan provides a framework for achieving long-lasting viable, thriving, and widespread giraffe population in natural habitats in Malawi which is key for tourism industry development. It is in the national interest of the Government of Malawi to ensure that the country maintains healthy giraffe populations that are increasing in numbers and address the threats facing their survival in protected areas and outside natural habitats.

We are committed to collaborate and work with the private sector, local communities, and other stakeholders in the implementation of this giraffe conservation action plan to conserve this high value animal species, and appeal to all stakeholders to support this noble cause.

Honourable Vera Kamtukule MINISTER OF TOURISM



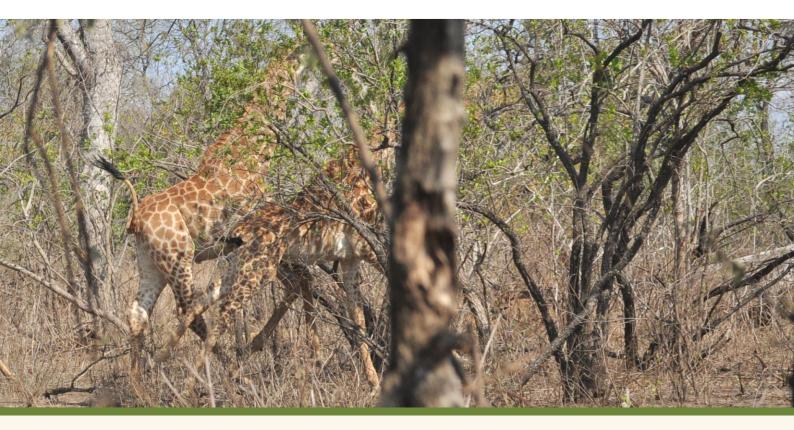
PREFACE

The Giraffe population is one of Malawi's natural assets in the protected areas and private ranches that has to be conserved and managed for the sustainable economic growth of the country. Malawi has made strides in the conservation and management of the giraffe following reintroductions that have been proved to be successful. Giraffe historically occurred in the country before being extirpated, and currently the population is found in four areas namely Majete Wildlfe Reserve, and in the private ranches of Nyala Game Park, Kuti Wildlife Reserve and Game Haven Park. Reintroductions are a powerful strategy for species restoration which require a clear understanding of the ecology and threats to the species, and highly skilled personnel to conduct the translocations, monitoring and management of the species.

The Malawi Giraffe Conservation Action Plan ((2024-2028) provides the framework to guide the implementation of the national activities for the conservation of giraffe in a long-term vision to establish a viable population in the country. The plan sets out four clear goals of knowledge, capacity, awareness and recovery with four strategic objectives that are critical in realising the vision, achieve the targets, and overcome threats to giraffe. The fundamental aspect of this plan is in assessing the feasibility of suitable reintroduction sites that includes criteria on giraffe habitat quality, protected area management effectiveness, threat levels and availability of resources for monitoring giraffe.

The Department of National Parks and Wildlife in the Ministry of Tourism is committed to work with various partners, Government, local and international conservation experts, local communities, scientists, non-governmental organisations, academia, and others to protect and conserve these iconic species for the present and future generations. Finally, I would like to thank the Giraffe Conservation Foundation (GCF) for the financial and technical support that made it possible to develop this action plan. The guidance, contributions, and support received during the various processes are acknowledged and highly appreciated. I welcome all stakeholders to support the implementation of this giraffe conservation plan.

Chauncy Simwaka SECRETARY OF TOURISM



1.INTRODUCTION

1.1. BACKGROUND

Species Action Plans are a key component of species conservation. They outline the conservation actions necessary for minimising the impacts of known threats, improving habitat conditions, or capitalising on habitats already effectively managed, and streamlining efforts to conserve the species. Together with stakeholders, the Department of National Parks and Wildlife (DNPW) has developed targeted Species Action Plans to address the identified species-specific needs. DNPW, as the mandated authority for wildlife conservation in Malawi, will lead the implementation of Species Action Plans, together with its partners, affected communities and other stakeholders. All Species Action Plans have accompanying information, including the state of the species, biological descriptions, technical assistance for conservation practices, strategies to avoid negative impacts, and population trends.

As with all the country's large mammals, the major threats facing Malawi's giraffe today primarily include anthropogenic-related impacts that result in habitat loss, degradation, and fragmentation. Additionally, isolated giraffe populations are vulnerable to local extinction from disease outbreaks, fire, drought, a low gene flow, and climate change-related impacts. To achieve the objectives of this Action Plan, giraffe and their habitats must be maintained through science-driven management and engaged government actors, partners, and local communities. Successful conservation will require effective coordination of all the stakeholders: local communities, regional states, federal agencies, NGOs, academia, and the public. While DNPW takes the lead for the implementation of this Action Plan, various partners have also committed their technical and logistical support for the implementation of key actions.

The preparation of this Action Plan began with the identification of local, regional, and international stakeholders (both at individual and institutional levels) for consultation, which was led by DNPW and supported by the Giraffe Conservation Foundation (GCF). The identified stakeholders include DPNW staff and local and international conservation experts from academic, government, non-governmental and research institutions. The stakeholders worked together to create the first-ever Malawian National Giraffe Conservation Action Plan 2024-2028. A planning workshop, which included representatives from a range of key stakeholders, was held in Lilongwe on 29-30 August 2023 (see Appendix I for a full list of participants). The strategy was written following an iterative process involving key stakeholders before the final draft was presented to DNPW for approval. This Action Plan follows the process used by various African range States to produce their own giraffe (and other species) strategies and plans and, in essence, broadly follows the revised format for Single Species Action Plans approved by the IUCN Species Survival Commission.

1.2. GIRAFFE CONSERVATION STATUS AND DISTRIBUTION IN AFRICA

Giraffe (Giraffa spp.) are the tallest living land animal and the largest ruminant in the world. Giraffe are sexually dimorphic, social animals that live in loose, fission-fusion, non-territorial open herds that range in size from a few individuals to more than 100. Giraffe inhabit a large variety of habitats from semi-arid, subtropical savannah habitats to arid desert environments, and browse on a wide range of trees and shrubs (Muller et al., 2018; Brown et al., 2021). Giraffe play an important ecological role through seed dispersal and stimulating the growth of new forage (GCF, 2023). They are highly mobile, and some subspecies move long distances in pursuit of sufficient forage or mating opportunities, especially in arid landscapes (e.g. Flanagan et al., 2016; Brown et al., 2023).

Historically, giraffe ranged throughout sub-Saharan Africa in open savannahs, shrublands, and dry forests; however, it is estimated their range has reduced by 90% in the last 300 years (Brown et al., 2021). Today, their range across 21 countries remains largely fragmented, found mostly in national parks and reserves, conservancies and private ranches, and surrounding community land. Giraffe range throughout the northern and southern savannah regions and open woodlands, predominantly avoiding dense forest and desert environments, with a distinctive broad strip of moist miombo woodland separating their southern and northern range (Muller et al., 2018; O'Connor et al., 2019; Brown et al., 2021). The home range for individual giraffe varies markedly between habitats, from 13-50 km² in mesic environments of Kenya and Tanzania, to >1,000 km² in arid environments in northwest Namibia and Niger (Brown et al., 2021).



The Africa-wide population estimate for all four species of giraffe is estimated at 117,000 individuals remaining in the wild, a marked decline from > 150,000 in the 1990s (Brown et al., 2021). This decline resulted in the uplisting of giraffe as one species from Least Concern to Vulnerable on the IUCN Red List of Threatened Species in 2018 (Muller et al., 2018). Between 2018 and 2019, all subspecies (excluding the South African giraffe) were assessed for separate IUCN Red List classifications; most of them for the first time (Table 1).

Table 1: The IUCN Red List of Threatened Species status¹ for eight subspecies of giraffe.

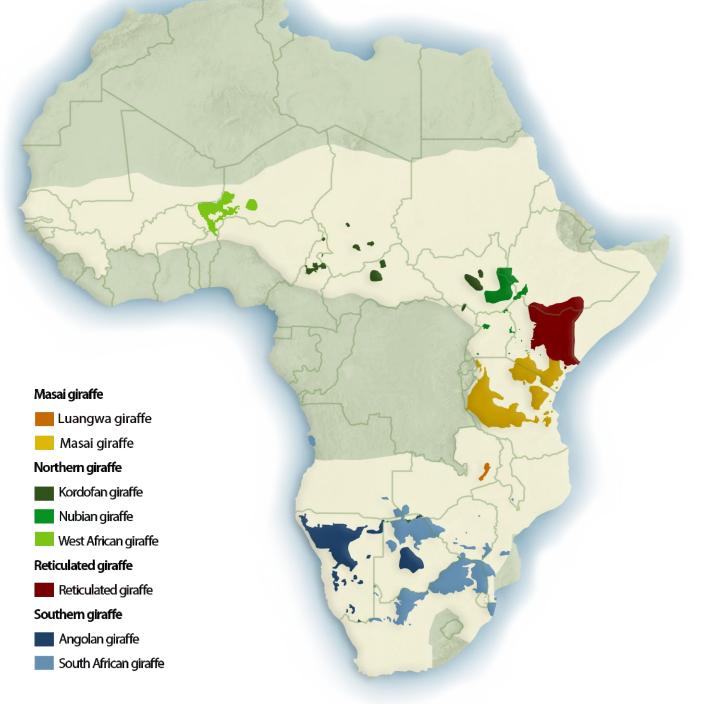
Species	Subspecies (common name)	Subspecies (scientific name) IUCN Red List State	
Masai		Giraffa tippelskirchi	
	Luangwa	G. t. thornicrofti	Vulnerable
	Masai	G. tippelskirchi	Endangered
Northern		Giraffa camelopardalis	
	Kordofan	G. c. antiquorum	Critically Endangered
	Nubian ²	G. c. camelopardalis	Critically Endangered
	West African	G. c. peralta	Vulnerable
Reticulated		Giraffa reticulata	Endangered
Southern		Giraffa giraffa	
	Angolan	G. g. angolensis	Least Concern
	South African	G. g. giraffa	

¹ Accessible here: https://www.iucnredlist.org/species/9194/136266699#taxonomy

² Subsumed into Rothschild's giraffe (G. c. rothschildi) - Critically Endangered

Although not a taxonomic authority, an updated review of the giraffe conservation status by IUCN using the taxonomic classification of four species is overdue (Figure 1 shows the distribution of the species of giraffe in Africa).

Figure 1: Current distribution of giraffe throughout their natural range in Africa (Source: Giraffe Conservation Foundation 2023)



Historical giraffe range (ca. 1700s)

The rapid decline in many giraffe populations and the reduction in the species' geographic range is widely attributed to habitat loss, land degradation, climate change, and illegal hunting (Brown et al., 2021; O'Connor et al., 2019). Consequently, giraffe populations are in critical need of strategic conservation action to ensure they survive and flourish.

1.3. STATUS AND DISTRIBUTION OF GIRAFFE IN MALAWI

1.3.1. Taxonomic Status of Giraffe in Malawi

The following (sub)species of giraffe are found in Malawi, along with their IUCN Red List status:

Southern giraffe (*G. giraffa*)

South African giraffe (*G. g. giraffa*) – Not Assessed (Muller et al., 2018)

Until recently, the taxonomic affiliation of Malawi's giraffe was unclear, given uncertainty of subspecies assignment of giraffe introduced from South Africa and Zimbabwe in the early 1990s (Winter et al. 2019). However, the first detailed population genetic study of giraffe in Malawi led by GCF and the Senckenberg Biodiversity and Climate Research Centre (BiK-F) identified the population as unambiguously South African giraffe (*G. g. giraffa*) with no detectable signal of introgression from other taxa (Winter et al. 2019). It is not known which (sub)species of giraffe was extirpated from Malawi.

1.3.2. Distribution of Giraffe in Malawi

The historical occurrence of giraffe in Malawi is uncertain due to limited records. However, it is assumed that giraffe historically occurred in Malawi despite contrasting views that they possible were only transient (Dagg 1962; East 1999; Briggs 2013; Happold & Happold 2023). A documented historical record exists of giraffe, assumed to have been a Luangwa giraffe, that strayed over the Zambian border into Malawi's Karonga District (Briggs 2013; Happold & Happold 2023).

Giraffe in Malawi currently only occur in four sites in the southern region: Majete Wildlife Reserve (WR), Nyala Game Park (GP), Kuti WR, and Game Haven Park (Figure 2). Since the early 1990s there have been several movements of giraffe outside of and within the country (see GCF Malawi Country Profile³ for details). In 1993, four giraffe (from Imire Park, Zimbabwe) were introduced into Nyala GP. In 2003, four giraffe (from Nyala GP) were introduced into Kuti WR. In 2007, two giraffe (from Nyala GP) were introduced into Game Haven Park. In 2018, 13 giraffe (nine from a private reserve in South Africa and four from Nyala GP in Malawi) were introduced into Majete WR. In 2021, a further nine giraffe (from a private reserve in South Africa) were introduced into Majete WR.

Despite these translocations, the population of giraffe in Malawi has fluctuated (Figure 3). While the causes of mortalities are difficult to ascertain, there are confirmed records for capture myopathy (4 cases), flash flooding (6 cases in Nyala GP), and snake bites (1 case each in Kuti WR and Game Haven Park). It was also suggested that low survival for calves in Nyala GP may have been a result of inbreeding. Currently, the giraffe population in Malawi is estimated at 34 individuals in four enclosed areas⁴:

- 26 giraffe in Majete WR
- 6 giraffe in Nyala GP
- 1 giraffe in Game Haven Park
- 1 giraffe in Kuti WR.

³Accessible here: https://giraffeconservation.org/wp-content/uploads/2023/06/Malawi-Country-Profile_2023.pdf ⁴This estimate was obtained in the 2-day stakeholder workshop held on 29-30 August 2023 in Lilongwe, Malawi.

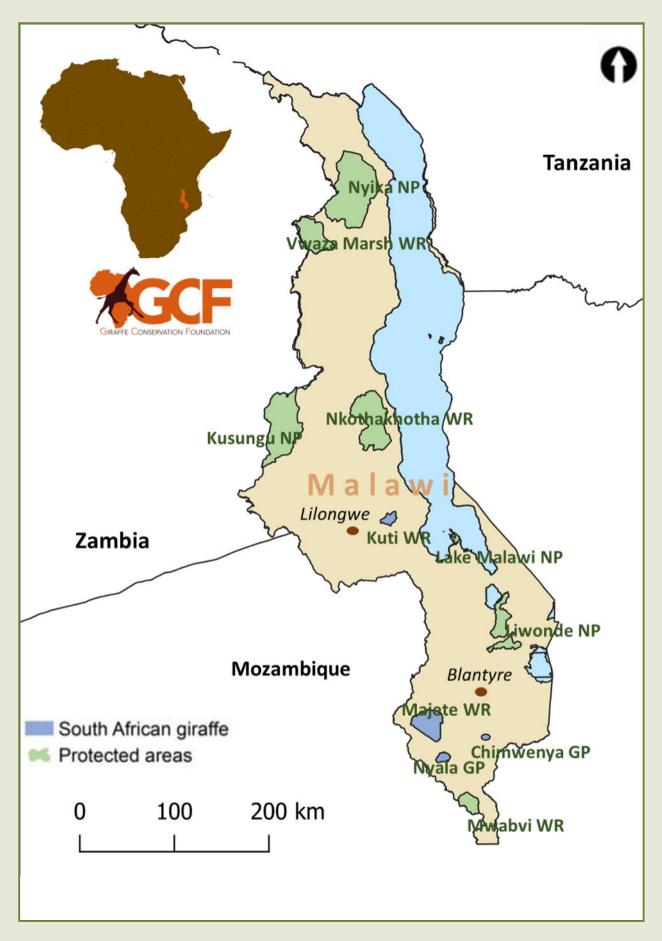


Figure 2: Current distribution of South African giraffe in Malawi (Source: Giraffe Conservation Foundation, 2023).

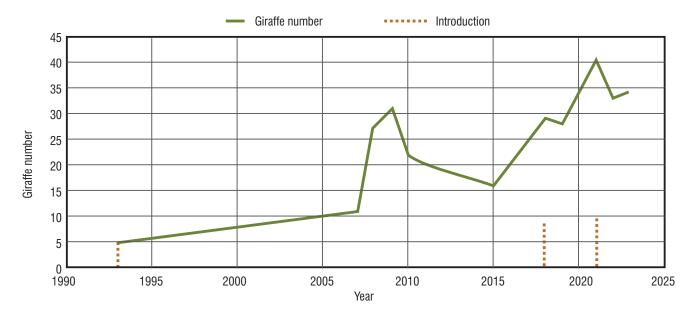


Figure 3: Population trends of the South African giraffe population in Malawi since 1993.

1.3.3. Threats

During the Action Plan workshop, stakeholders identified several key threats which were classified as current or potential threats⁵. Current threats include habitat loss and fragmentation, climate change, inbreeding, and disease based on confirmed mortalities. Potential threats, more likely with an increasing giraffe population in future, were identified as snaring, roadkill, and cultural medicinal use. Using the Conservation Standards threat rating process (Appendix II), the scope, severity, irreversibility, magnitude, and an overall threat rating were assigned to each of the seven threats (Table 2). During this process, habitat loss was ranked as the greatest threat for giraffe in Malawi.

Table 2: The rating of threats impacting giraffe in Malawi identified during the National Giraffe Conservation Action Plan workshop based on the Conservation Standards⁶.

Threat	Scope	Severity	Irreversibility	Magnitude	Overall	Rank
Habitat loss	Very high	Very high	High	Very high	Very high	1
Diseases	High	High	Medium	High	High	2
Snaring	Medium	High	Medium	Medium	Medium	3
Climate change	Very high	Medium	High	Medium	Medium	3
Roadkill	Low	Low	Medium	Low	Low	4
Inbreeding	High	Medium	Low	Medium	Low	4
Cultural medicinal use	Low	Low	High	Low	Low	4

⁵Following the Conservation Standards, potential threats need to be estimated and included in strategic plans so that the plans can be proactive in threat mitigation rather than purely reactive. ⁶https://conservationstandards.org/about/

FOR THE CONSERVATION OF GIRAFFE IN MALAWI

The key policies and acts relating to giraffe conservation in Malawi were reviewed in detail (Appendix III). Here, we provide a summary of the key legislative highlights that are pertinent to giraffe conservation in Malawi:

- Giraffe are listed as a "protected species" in The National Park and Wildlife Act (2017), giving them full protection in Malawi.
- Under the National Wildlife Policy (2018) in Malawi, all wildlife resources require effective conservation and management. While giraffe are not explicitly stated, they are considered a wildlife resource and require specific management and conservation actions.
- Under the National Environmental Policy (2004), biological diversity needs to be managed and conserved to promote development and preserve natural heritage in Malawi. This biological diversity should include giraffe.
- The urgency for biodiversity conservation in Malawi, is outlined in the National Biodiversity Strategy and Action Plan (2026), which aims to restore biodiversity, including habitats and species. This would thus include giraffe as a species to be effectively restored in Malawi.
- There are a number of other supporting acts relating to law enforcement of biological resources and land resource management in Malawi, which can be found in Appendix III.
- Malawi is a signatory to multiple international treaties and agreements, including:
- The Convention on Biological Diversity (CBD) of 1992, which obliges DNPW to establish a system of protected areas that are managed to promote the protection of ecosystems and natural habitats, and the maintenance of viable populations of species. This would naturally include giraffe in Malawi.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), where DNPW is the responsible authority where giraffe are listed in Appendix II of CITES.
- The Convention on the Conservation of Migratory Species of Wild Animals (CMS), which obligates Malawi to conserve
 migratory species of wildlife across their migratory range, which is important in the Nyika and Vwaza Marsh ecosystem
 and how giraffe populations might be connected to the North Luangwa National Park in Zambia.
- Ramsar Convention and other national treaty details can be found in Appendix III.



3. VISION, GOALS, TARGET AND STRATEGIC OBJECTIVES

3.1. VISION

A viable, thriving, and widespread giraffe population in natural habitats in Malawi.

3.2. TARGET

Giraffe numbers and distribution expanded in Malawi.

3.3. GOALS

- G1. To comprehensively fill knowledge gaps on key aspects of giraffe ecology and conservation in Malawi over the next five years.
- G2. To broaden the support for giraffe conservation for key stakeholders in Malawi over the next five years.
- G3. To build the capacity of Malawians to restore and manage their giraffe population.
- G4. To increase the distribution and population trend of giraffe in Malawi over the next five years.

3.4. STRATEGIC OBJECTIVES

The current giraffe population in Malawi is small and likely experiencing a high degree of inbreeding. It was thus identified that there needs to be active management to restore the Malawi giraffe population, with research to improve knowledge and to identify potential restoration sites. Local stakeholders such as permit approval agencies and communities surrounding sites should be engaged to gather appreciation and support for giraffe conservation and to enable efficient legal import of appropriate giraffe species into Malawi. It will be critical to ensure that Malawi can support and manage these processes for the sustainability of the giraffe population. Consequently, building the capacity of Malawians is critical.

While the identified main threat to giraffe in Malawi was habitat loss and fragmentation, well managed protected areas (with suitable habitat) are required to support successful recovery of giraffe. This action plan will focus on identifying such areas that are effectively managed and resourced in order to ensure successful recovery. Hence, a strategic objective on restoring giraffe in suitable areas (relating to habitat and management) is essential. Consequently, there is no need within this plan to develop a strategic objective specifically around threat reduction. Overall, this 5-year Action Plan centres around an active restoration programme for giraffe in Malawi which will be implemented through four strategic objectives (SO):

- S01. Generate knowledge through conservation research to improve understanding of giraffe ecology with an emphasis on assessing the potential for giraffe restoration by 2025.
- S02. Raise awareness, understanding, and support for giraffe conservation through active engagement with key decisionmakers and environmental education to communities in proximity to restoration sites by 2028.
- SO3. Build Malawian institutional capacity in law enforcement, research, monitoring, and management for giraffe conservation and management by 2028.
- So4. Strengthen the giraffe population in Malawi by restocking 50% of the identified habitats with giraffe, while ensuring these restocked populations are maintained by 2028.

With the high level of fragmentation and large geographic distances between potentially suitable restoration sites, even active reintroductions are unlikely to result in viable populations in each reintroduction site. Consequently, this 5-year Action Plan will need to be followed by active metapopulation management of giraffe; where each site is not considered viable by itself, but all relevant sites together, linked through human-mediated movements between sites, are considered viable as a whole in Malawi. This should alleviate inbreeding concerns and ensure in the long-term that the vision is realised.

Strategic Objective 1: Generate knowledge through conservation research to improve understanding of giraffe ecology with an emphasis on assessing the potential for giraffe restoration by 2025.

Goal	Activity	Indicator
1. To comprehensively fill knowledge gaps on aspects of giraffe conservation in Malawi over the next five years.	Conduct a reintroduction assessment for all potential restoration sites, including aspects of habitat (e.g. food availability), threats (e.g. disease), management effectiveness, financial resources, security, and monitoring infrastructure.	Number of sites identified
	Conduct an annual national giraffe population census.	Five surveys over five years
	Establish a national giraffe database for reporting numbers and trends.	Database created
	Gather traditional knowledge on giraffe from across Malawi.	Summary report

Strategic Objective 2: Raise awareness, understanding and support for giraffe conservation through active engagement with key decision-makers and environmental education to communities in proximity to restoration sites by 2028.

Goal	Activity	Indicator
1. To broaden the support for giraffe	Stakeholder mapping to identify key stakeholders.	Stakeholder report
conservation for key stakeholders in Malawi over the next five years.	Host educational stakeholder meetings and/or workshops to improve understanding of giraffe conservation.	Meeting minutes
	Create and broadcast educational radio/tv programmes on giraffe threats and conservation needs.	Number of broadcasts
	Develop educational materials (flyers and posters) on giraffe conservation.	Number of materials produced
	Disseminate educational materials to schools and communities surrounding restoration sites and protected areas.	Number of materials disseminated
	Promote and celebrate World Giraffe Day – 21 June at a national level annually.	Report on celebrations

Strategic Objective 3: Build Malawian institutional capacity in law enforcement, research, monitoring, and management for giraffe conservation and management by 2028.

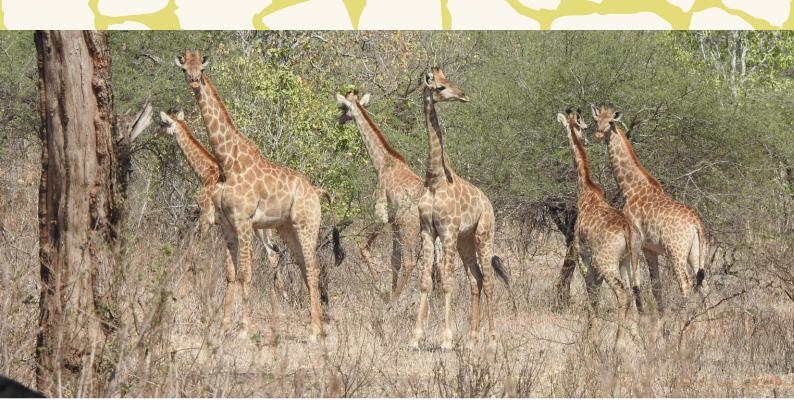
Goal	Activity	Indicator
1. To build the Assess the institutional capacity deficits in conservation research, monitoring, and management of giraffe in Malawi.		Report
restore and manage their giraffe population.	Create learning opportunities for Malawian conservation officials to observe successful examples of metapopulation management from other African countries.	Number of DNPW, AP and PPF personnel
	Create a training plan to support the development of local capacity in giraffe conservation, monitoring, and management.	Training plan developed

Goal	Activity	Indicator
1. To build the capacity of Malawians to restore and manage their giraffe	Train / support training of local veterinarians in wildlife immobilisation and capture.	Number of vets trained
population.	Train / support training of staff in giraffe conservation monitoring.	Number of staff trained
	Train / support training of line staff in giraffe conservation and management.	Number of staff trained
	Train / support training of rangers for law enforcement.	Number of rangers trained
	Resourcing for monitoring and law enforcement tasks in giraffe conservation and management.	Number of equipment procured
	Strengthen security (law enforcement and fences) and staffing in giraffe conservation and management.	Number of rangers deployed / patrols carried out
	Develop a giraffe metapopulation management plan by the end of year five of this action plan.	Giraffe metapopulation management plan

Strategic Objective 4: Strengthen the giraffe population in Malawi by restocking 50% of the identified habitats with giraffe, while ensuring these restocked populations are maintained by 2028.

Goal	Activity	Indicator
1. To increase the distribution and	Conduct a review of Africa-wide historical giraffe translocations to determine best practice for reintroduction success.	Summary report
population trend of giraffe in Malawi over the next five years.	Identify the appropriate giraffe species to be reintroduced across Malawi.	Species identified
youro.	Identify the appropriate population sources from which to translocate giraffe.	Founder sites identified
	Ensure that the infrastructural and capacity resources for each potential restoration site are in place prior to translocation(s).	One holding boma per site constructed
	Develop Giraffe Reintroduction Guidelines for Malawi, approved by DNPW.	Document signed off by DNPW Director
	Translocate and/or augment the appropriate number of giraffe to identified restoration sites.	Number of giraffe translocated
	Conduct post-translocation monitoring to determine post-release survival.	Monitoring plan developed and implemented

4. Implementation of the Malawian Giraffe Conservation Action Plan 2024-2028



The Malawian Giraffe Conservation Action Plan for 2024-2028 is only a tool, and the implementation of activities are key to achieving the strategic objectives and goals. As such, there is a need for a clear structure to oversee its implementation and to review its progress. It is necessary that the Research and Development Unit of DNPW, with support from a core group of key partners, lead the implementation and review of the Action Plan. It is expected that these stakeholders will conduct a mid-term review (year 2-3) and a final review (year 5) to guide its implementation and provide recommendations for the development of the next Action Plan.

Several factors were identified as possible constraints to the implementation of this Action Plan. Primarily, a lack of resources was the foremost potential constraint, which could inhibit all subsequent activities. As such, the need for a primary enabling strategy to secure and mobilise resources was agreed upon, while effectively managed protected areas will be the key sites for recovery as these will have the necessary structures and resources to deal with any threats to giraffe⁷. The 2025 election was also identified as an uncertain potential constraint, as the political support and prioritisation could change mid-way through this Action Plan. This enforces the need for a mid-term review. While natural disasters, such as cyclones or disease/pandemic outbreaks (e.g. covid or cholera) cannot be anticipated, it was noted that potential delays in the implementation and funding should be expected. Other possible barriers to implementation were identified as unmotivated staff, and that not all key stakeholders (i.e. potential implementers and supporters) had been identified.

Several opportunities were identified as supporting factors to the implementation of this Action Plan. The most important opportunity, based on expertise at the Lilongwe workshop, is that Malawi does contain ideal habitat for giraffe throughout the country, thus a reintroduction programme provides an exciting opportunity for restoration. Positively, well-trained staff and good standing relationships with communities surrounding protected areas were identified as supporting planned activities. Moreover, the strong and clear wildlife legislation of Malawi will enable the long-term conservation of giraffe in the country. There are also several opportunities in the country to learn from previous activities undertaken by the private and NGO sector regarding giraffe translocations and management.

The DNPW Research and Development Unit assignee and the core group of key partners will need to optimise these opportunities and limit the constraints.

⁷This precludes the need for a separate strategic objective on specifically dealing with threats to giraffe in Malawi.

5.CONCLUSION

The emphasis of this Malawian Giraffe Conservation Action Plan 2024-2028 is on the implementation of the activities to achieve the four strategic objectives. By achieving these, the four goals should also be achieved by the end of the term of this plan. This will then set this first-ever Action Plan as the foundation for a long-term vision of establishing a viable and thriving population of giraffe that is distributed across Malawi. With this Action Plan developed, it will limit ad hoc activities and provide the opportunity for a targeted and strategic direction for giraffe conservation in Malawi. The implementation of this plan is only possible if it is coordinated and resourced following its endorsement by DNPW. There are key enabling conditions for this plan relating to motivated DNPW staff, supportive communities, and strong wildlife legislation. In conclusion, if implemented effectively, this Action Plan has the ingredients necessary to make a marked and important impact for giraffe conservation in Malawi. The future and survival of giraffe in Malawi is dependent on partners working together with DNPW and local communities backing giraffe conservation of giraffe in the country.



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7. APPENDICES

APPENDIX I: Participants of the Malawian Giraffe Conservation Action Plan Workshop, 29-30 August 2023, Ufulu Gardens Hotel, Lilongwe, Malawi

No.	Name of Participant	Institution	Position
1	Mr. Brighton Kumchedwa	DNPW	Director
2	Mr. Anthony Sunguma	DNPW	Accounts Officer
3	Mr. Davis Kalima	DNPW	Deputy Director WMU
4	Mr. Andrew Kataya	DNPW	Planning Officer
5	Mr. Peter Wadi	DNPW	Division Manager (North)
6	Mr. Edson Sichali	DNPW	Senior Research Officer
7	Mr. Anthony Chikwemba	DNPW	Park Manager
8	Mr. John Stuart	DNPW	PWO
9	Mr. Matthews Mumba	DNPW	Park Manager
10	Mr. Leonard Moyo	DNPW	Division Manager
11	Mr. Kumanga	DNPW	Park Manager
12	Mr. McPhillip Mwithokona	DNPW	Division Manager
13	Mr. Rajab Janah	DNPW	PWO
14	Mr. Walison Fixon	DNPW	PWO
15	Mr. Samson Mkumbwa	DNPW	PWO
16	Mr. Patrick Chinguwo	DNPW	Park Manager
17	Mr. Jones Mwalukomo	Nyala Park, Private Ranch at Illovo	Manager
18	Mr. George Nxumayo	PPF	Project Manager
19	Mr. Henry Miluwaya	AP, Majete Wildlife Reserve	Field Operations Manager
20	Mr. Laurie Webb	Kuti Wildlife Reserve, Private Ranch	Manager
21	Dr. Julian Fennessy	GCF	Director - Conservation
22	Dr. Courtney Marneweck	GCF	Conservation Science Data Coordinator
23	Dr. David Marneweck	Conservation Alpha	Facilitator



APPENDIX II: Explanation of the threat rating process used to rate, rank, and prioritise critical threats, following the conservation standards.

Prioritising the direct and indirect threats that affect the conservation targets of giraffe in Malawi was critical to identify targeted actions in the National Giraffe Conservation Action Plan 2024-2028. Firstly, critical threats – the ones that are most important to address – are identified. One can use several threat rating and ranking tools to help prioritise. Most tools assess the scope of the threat and the severity of its impacts on the conservation targets. Taken together, these two criteria assess overall threat magnitude. Other frequently used criteria include permanence/irreversibility and urgency. Combining the magnitude and irreversibility provides an overall threat rating. During the national workshop, the participants classified each threat's scope, severity and irreversibility as either low, medium, high or very high.

Table A1. Scope, severity and irreversibility criteria for ranking direct threats.

Threat criteria	Definition	Level	Level example
Scope	Proportion of target affected by the threat given the continuation of current circumstances [e.g. percentage of the target's population]	Very high	 Pervasive 71-100% of occurrence or population
		High	 Widespread 31-70% of occurrence or population
		Medium	 Restricted 11-31% of occurrence or population
			 Very narrow 1-10% of occurrence or population
Severity Within the scope, the level of damage to the target from the threat given the continuation of current		Very high	 Destroy or eliminate target Reduce target population by 71-100%
	circumstances and trends [e.g. degree of reduction of the target population within the scope]	High	 Seriously degrade/reduce target Reduce its population by 31-70%
	Medium	 Moderately degrade/reduce target Reduce its population by 11-30% 	
		Low	 Slightly degrade/reduce target Reduce its population by 1-10%

Threat criteria	Definition	Level	Level example
Irreversibility Degree to which the effects of a threat can be reversed, and the target affected by the threat restored to a	Very high	 Cannot be reversed or restored >100 years to achieve 	
	affected by the threat restored [e.g. how long, difficult, and/or costly to restore population]	High	 Reversal or restoration not affordable 21-100 years to achieve
		Medium	 Reversal or restoration reasonable 6-20 years to achieve
	Low	 Easily reversed and restored 0-5 years 	

Table A2. Combining scope severity provides the threat magnitude

		Scope				
		Very High	High	Medium	Low	
Severity	Very High	Very High	High	Medium	Low	
	High	High	High	Medium	Low	
	Medium	Medium	Medium	Medium	Low	
	Low	Low	Low	Low	Low	

Table A3. Combining magnitude and irreversibility provides the overall threat rating.

		Irreversibility				
		Very High	High	Medium	Low	
Magnitude	Very High	Very High	Very High	Very High	High	
	High	Very High	High	High	Medium	
	Medium	High	Medium	Medium	Low	
	Low	Medium	Low	Low	Low	

APPENDIX III: Full legislative review in Malawi, as it relates to giraffe conservation.

National Policies and Acts

The National Parks and Wildlife Act (2017)

The National Park and Wildlife Act (NPWA) (2017) of Malawi is the principal legislation dealing with the protection of wildlife resources in the country. The Act provides full protection for wildlife species and has provisions in section 28 to declare any area of land or water within Malawi as a national park or wildlife reserve.

Giraffe are listed as a "protected species" within the Act and, as such, provided full protection from certain offences related to its illegal killing, possession, import/export, trade, and manufacture. In many ways, the NPWA is a thorough statute offering potentially extensive protection to a number of species and broad authority to the Director of DNPW.

National Wildlife Policy (2018)

The National Wildlife Policy of 2018 goal is to ensure proper conservation and management of wildlife resources. It aims to provide for sustainable utilisation and equitable access to the resources and fair sharing of the benefits from the resources for both present and future generations of Malawi.

Other National Legislation, Policies, Plans, and Strategies

There are several additional National Policies that are of relevance to the conservation of giraffe in Malawi, including:

The **National Environmental Action Plan (1994)** was adopted to set out management activities and projects aimed to protect the natural environment.

The **National Forestry Policy (1997)** was adopted for all citizens to have regulated and monitored access to some forest products and establish incentives that will promote community-based conservation and sustainable use of forest resources as a means of poverty reduction.

The **National Land Resource Management Policy and Strategy (2020)** was adopted to promote the efficient, diversified, and sustainable use of land-based resources both for agriculture and other uses. In addition, the policy seeks to prevent sectoral land use conflicts and enhance sustainable socio-economic growth for the conservation of biodiversity and the management, conservation, and utilisation of natural resources in order to ensure sustainable land and ecosystem productivity.

The **National Environmental Policy (2004)** was adopted to promote sustainable social and economic development through sound management of the environment. It promotes the conservation of biological diversity and seeks to manage, conserve, and utilise biological diversity for the preservation of national heritage. It also deals specifically with wildlife and contains several strategies on the conservation of wildlife inside and outside of Protected Areas.

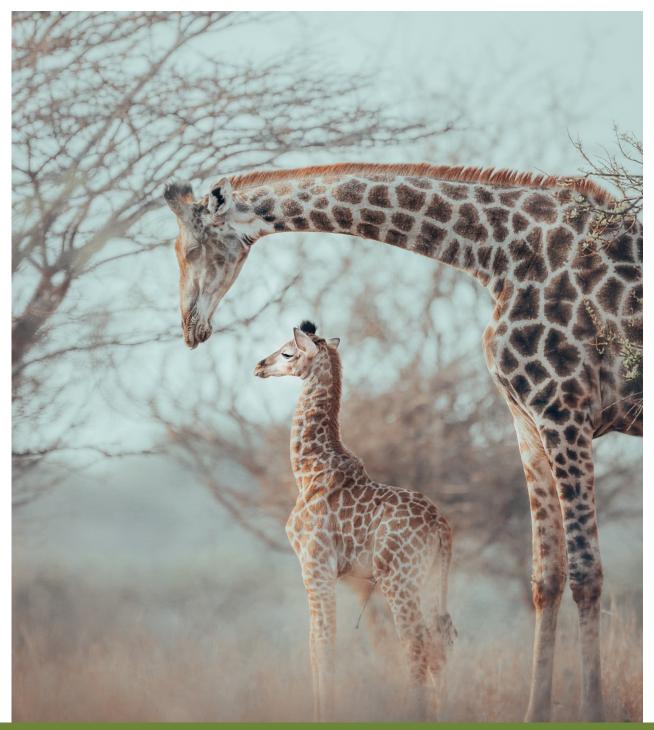
The **National Biodiversity Strategy and Action Plan (2026)** was adopted in response to the National Environmental Action Plan (1994) which identified biodiversity loss as a major environmental concern and outlined Malawi's commitment to protecting conserve, maintain, and restore biodiversity, including habitats and species.

Other Domestic Legislation

There are several additional Malawian Laws that are of relevance to the conservation of giraffe, and include:

- The Malawi Penal Code with particular reference to matters of compensation, theft, with particular reference to the theft of animal parts, killing animals with intent to steal or killing and injuring animals, receiving stolen property, corruption, neglect of office, assembling for the purpose of smuggling, and conspiracy.
- Malawi Firearms Act of 1967 (as amended) with particular reference to matters of unlawful possession of a firearm and unlawful possession of ammunition.
- Malawi Customs and Excise Act of 1969 with particular reference to imports and exports, the liability of agents and the various offences associated with illicit: goods, documentation, contraband concealment and unlawful behaviour of customs officials in addition to the powers of forfeiture, seizure, embargo, and abandonment afforded to the Malawi Revenue Authority.
- Malawi Immigration Act of 1964 with particular reference to prohibited immigrants and their removal, deportation, forgery of documents, aiding and abetting unlawful entry and the prescribed offences under Schedule 3, including those related to firearms, bribery, stealing, embezzlement, and fraud.

- Corrupt Practices Act of 1995 with particular reference to corrupt practices, corrupt use of power and the Anti-Corruption's powers of seizures etc. (Amended in 2004).
- Money Laundering and Proceeds of Serious Crime and Terrorist Financing Act of 2006 with particular reference to
 money laundering offences, the making of false or misleading statements, and the powers of currency seizure and
 additional sanction and confiscation upon conviction of a serious crime.
- Extradition Act of 1974 although wildlife offences are not expressly included in the Act, the theft of a dead body of a
 wild animal or its constituent parts (e.g. ivory) could qualify as an extraditable offence as could the killing or maiming
 an animal if it equates to 'malicious or wilful damage to [State] property'.
- Malawi Forestry Act of 1997 with particular reference to the prohibition of possession or use of weapons, traps, explosives, poisons or hunting animals and other forest related offences, particularly those related to: wildlife, trafficking of forest produce, obstruction of officers, false documentation, and the import and export of forest produce.
- Environmental Management Act 1996 with particular reference to environmental impact assessments, environmental protection areas, and conservation of biological diversity.
- Protection of Animal Act of 1970 with particular reference to the prohibition of animal cruelty, including the unnecessary suffering of wild animals once captured e.g. in snares or traps or during transport.



International Treaties and Agreements

Convention on Biological Diversity (CBD) of 1992

Malawi was one of the first few countries to sign the Convention on Biological Diversity (CBD) at the United Nations Conference on Environment and Development (UNCED) - "The Earth Summit" - in Rio de Janeiro, Brazil in 1992, and it was ratified in 1994. This convention obliges member states to establish a system of protected areas; develop guidelines for the selection, establishment, and management of protected areas; promote the protection of ecosystems and natural habitats, and the maintenance of viable populations of species in natural surroundings; and promote the integration of sustainable utilisation of natural resources in national strategies.

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

This convention of 1973 obligates member states to regulate international trade in endangered species of wild fauna and flora through international cooperation. The DNPW is the responsible management authority of CITES in Malawi, and the country has been a signatory (contracting party) since 1982. The CITES CoP 18 approved the listing of giraffe in Appendix II in August 2019.

Convention on the Conservation of Migratory Species of Wild Animals (CMS)

This convention of 1979 obligates Malawi to conserve migratory species of wildlife across their migratory range. It requires Malawi to cooperate with other states that form part of the migratory range of wildlife resources found or migrating through the country. The country became a signatory (contracting party) in 2019. In October 2017, giraffe were listed on Appendix II of the CMS.

Ramsar Convention

Parties to the Ramsar Convention are expected to demonstrate their commitments to wetland management through three 'pillars' of action: (1) the wise, or sustainable, use of wetlands; (2) the identification of internationally important wetlands for inclusion in the Ramsar List; and (3) international cooperation and the sharing of information and expertise. Malawi has been a signatory (contracting party) to the Ramsar Convention since 1997.

Other International Treaties and Agreements

Malawi is a signatory to the London Declaration on Illegal Wildlife Trade, the Arusha Declaration on Wildlife Crime, and is part of the Clinton Global Initiative. Malawi is also an observer on the Lusaka Agreement Task Force, a member of the Wildlife Enforcement Network for Southern Africa and is part of the SADC Trans-Frontier Conservation Area initiative.

There are several additional International Conventions, Protocols and Agreements which have been ratified by Malawi and are of relevance to the conservation of giraffe, including:

- United Nations Convention against Transnational Organized Crime (UNTOC)
- United Nations Convention against Corruption (UNCAC)
- African Convention on the Conservation of Nature and Natural Resources
- Southern African Development Community (SADC) Legal Protocol on Mutual Legal Assistance in Criminal Matters
- SADC Legal Protocol on Corruption
- SADC Legal Protocol on Extradition
- SADC Legal Protocol on Wildlife Conservation and Law Enforcement
- International Financial Corporation (IFC) Environmental and Social Performance Standards (PS 6).







