THE REPUBLIC OF UGANDA

MINISTRY OF TOURISM, WILDLIFE AND ANTIQUITIES

NATIONAL RHINO CONSERVATION AND MANAGEMENT STRATEGY FOR UGANDA

2018 – 2028

UWA

Conserving for Generations

A Uganda Wildl life Authority Publication

Photo Credits: Rhino Fund Uganda

Sponsors

WWF

UWA
Conserving for Generations

RHINO FUND UGANDA

THE REPUBLIC OF UGANDA
MINISTRY OF TOURISM, WILDLIFE AND ANTIQUITIES

NATIONAL RHINO CONSERVATION AND MANAGEMENT STRATEGY FOR UGANDA 2018 – 2028

Table of Contents

Table of figures

ABBREVIATIONS

AAZA	American Association of Zoos and Aquaria
AfRSG	African Rhino Specialist Group
AWF	African Wildlife Foundation
BoT	Board of Trustees
CITES	Convention on International Trade in Endangered Species
COVAB	College of Veterinary Medicine, Animal Resources and Biosecurity
CSWCT	Chimpanzee Sanctuary and Wildlife Conservation Trust
CWC	Commissioner Wildlife Conservation
DC	Director Conservation
DFA	Director Finance and Administration
DTBS	Director Tourism and Business Services
DNA	Deoxyribonucleic Acid
DDCC	Deputy Director Community Conservation
DDFO	Deputy Director Field Operations
DDP	Deputy Director Planning
EARMG	East Africa Rhino Management Group
EAZA	European Association of Zoos and Aquaria
ED	Executive Director
FFI	Fauna and Flora International
GMP	General Management Plan
GVTC	Greater Virunga Transboundary Collaboration
IUCN	International Union for Conservation of Nature
KWS	Kenya Wildlife Service
KPI	Key Performance Indicators
LATF	Lusaka Agreement Task Force
MAK	Makerere University Kampala
MTWA	Ministry of Tourism, Wildlife and Antiquities
NEMA	National Environment Management Authority
NRC	National Rhino Coordinator
PLA	Private Landowners Association
RDB	Rwanda Development Board
REC	Rhino Executive Committee
RFU	Rhino Fund Uganda
RHoDIS	Rhino DNA database
RRS	Rhino Range States
RSC	Rhino Steering Committee
SADC	Southern African Development Cooperation
SSC	Species Survival Commission
TRAFFIC	Trade Records Analysis on Flora and Fauna in Commerce
UWA	Uganda Wildlife Authority
UWEC	Uganda Wildlife Conservation Education Centre
WWF	Wildlife Fund for Nature

ACKNOWLEDGEMENT

The Government of Uganda through the Ministry of Tourism, Wildlife and Antiquities wishes to acknowledge and thank Uganda Wildlife Authority for coordinating and spearheading the rhino strategy formulation process, WWF-Africa Rhino Program and WWF Uganda County Office for their financial and technical support that enabled the rhino strategy workshop to be held in August 2015 in Kampala, Uganda.

AWF, KWS, RDB, IUCN, FFI and Solio Rhino Sanctuary are thanked for honoring our invitation and attending the rhino strategy planning workshop. The Ugandan stakeholders particularly UWEC, RFU, CSWCT, Makerere University, NEMA, INTERPOL, Tour Operators are equally thanked for their active participation in the planning workshop. The IUCN-SSC-AfRSG Secretariat members, particularly Richard Emslie and Benson Okita-Ouma are thanked for their invaluable input and written comments to this document.

Special thanks go to the technical team comprising Joseph Okori, Richard Emslie, Keryn Adcock, Ben Okita-Ouma, Linus Kariuki, Patrick Atimnedi and Alice Natukunda that put together the August 2015 workshop report.

The following individuals are further acknowledged for their invaluable technical comments into the draft document; Richard Emslie, Markus Hofmayr, Rob Brett, Ben Okita-Ouma, Keryn Adcock, Ed Sayer, Tony Conway, Chansa Chomba, Linus Kariuki, Raoul du Toit, James Lutalo, Andrew Seguya, George Owoyesigire, Charles Tumwesigye, Tom Okello Obong, Adonia Bintoora, John Makombo, Edgar Buhanga, Felix Patton, Angie Genade and Joseph Okori.

The UWA directorate of Conservation and particularly the Veterinary Unit is thanked for organizing the workshop and doing the final write up, the management and staff of Sheraton Kampala Hotel for hosting the workshop at a very significantly discounted rate.

Thank you and we remain indebted to you all.

Plate1: *Participants at the National Rhino Conservation and Management Strategy workshop, Kampala*

APPROVAL

This **Uganda Rhino Conservation And Management Strategy**

was approved for implementation by the

Board of Trustees of Uganda Wildlife Authority

at its sitting of

26th March 2018

Samuel Mwandha
Executive Director

Mr. Ben Otto
Chairman, Board of Trustees

PREFACE

Black and White rhinos were once widespread in northern Uganda and should be part of every Ugandan citizen's heritage. Rhinos became nationally extinct in Uganda due to illegal human activity. The re-introduction of rhinos is therefore fundamental to repairing the damage done to Uganda's wildlife inventory and biodiversity by poaching and civil unrest. Successful conservation of rhinos represents an important opportunity for Uganda to show the international community that the country has returned to long term peace and good governance.

Uganda Government's resolve to conservation stems from the National Constitution of 1995 which, under Objective XIII, vests the ownership and protection of important natural resources including land, water, wetlands, minerals, oil, fauna and flora in the Government of Uganda on behalf of the people of Uganda; while objective XXVII (iv)(a) mandates the state including local governments to create and develop national parks, wildlife reserves and recreation areas and ensure conservation of natural resources.

As envisaged in the Uganda Vision 2040, the tourism sector is set to become the mainstay of the economy contributing the highest foreign exchange earnings, tax and non-tax revenue, employment and overall contribution to GDP as a whole. The Uganda Wildlife Policy 2014 whose vision is to sustainably manage and develop wildlife resources and healthy ecosystems in a transformed Uganda provides a framework for formulation and implementation of species-specific national conservation plans, strategies and programs for rare, threatened, endemic, endangered or extinct species. The Policy specifically highlights Uganda's intention to formulate and implement species-specific national conservation plans, strategies and programs for rare, threatened, endemic, endangered or extinct species. The National Rhino Conservation and Management Strategy is therefore timely and relevant to the policy provisions.

As a flagship species, rhinos will substantially benefit the conservation of all other wildlife in those specific areas bringing with it both ecological and economic benefits.

The successful implementation of this strategy will require, in part, the commitment of international and local donors towards capacity building while sustainability is developed. Endorsing this strategy demonstrates the commitment of the Government of Uganda to its implementation.

FOR GOD AND MY COUNTRY

Prof. Ephraim Kamuntu (MP)

MINISTER OF TOURISM, WILDLIFE AND ANTIQUITIES

FOREWORD

Allow me, on behalf of Uganda Wildlife Authority to present to you the first ever Rhino Conservation and Management Strategy for Uganda.

Uganda Wildlife Authority (UWA) is a body corporate established in 1996 by an Act of Parliament (Uganda Wildlife Act Cap 200 of the laws of Uganda 2000) through the merger of the then Game Department and Uganda National Parks. UWA was created to ensure sustainable management of wildlife and to coordinate, monitor and supervise activities related to wildlife management. Currently, UWA manages 10 National parks, 12 Wildlife Reserves and wildlife outside protected areas and provides guidance on the management of community wildlife areas and wildlife sanctuaries. This is guided by the 2013–2018 UWA Strategic Plan and General Management Plans for all the National Parks and Wildlife Reserves.

Wildlife conservation in Uganda has had its fair share of challenges in the past due to political and socio economic breakdown that resulted into lawlessness in the 1970's and early 1980's. Wildlife protected areas were heavily encroached and became home to marauding militias and rebel elements, infrastructure were destroyed, staff were very poorly remunerated, facilitated and lost morale, wild animals were butchered en-mass leading to extinction of some key species, among them, the then 300 Northern White Rhinos (*Cerathotherium simum cottoni*) and 400 Eastern Black Rhinos (*Diceros biconis michaeli*) that formerly roamed the plains/landscapes of Murchison Falls and Kidepo Valley National Parks respectively (Game Department Annual Reports, 1923–56).

Having restored order and constitutionalism, the government of Uganda rose to the occasion of protecting and conserving wildlife, our major tourist attraction and heritage. The wildlife protected area boundaries were re-opened, marked and encroachers evicted, competent staff were recruited, trained, skilled and their welfare improved, tourism infrastructure renovated and new ones built, poaching greatly minimized and continue to be under check. The local communities and other organs of government such as the security, police, judiciary and customs are now aware of their role and have actively taken up their position in wildlife conservation and continue to immensely support the sector efforts.

The stage has been set to reintroduce species that got nationally extinct back into the country as guided by the Uganda Wildlife Policy 2014. The policy with a vision to sustainably manage and develop wildlife resources and healthy ecosystems in a transformed Uganda specifically provides Uganda's intention to formulate and implement species-specific national conservation plans, strategies and programs for rare, threatened, endemic, endangered or extinct species.

It is against this background that the Government of Uganda developed this ten (10) year National Rhino Conservation and Management Strategy to among others provide guidance and direction for rhino conservation and management, align with the relevant policy and legal frameworks in place and seek support and partnerships locally, regionally and globally for rhino conservation work in the country.

The plan developed through a stakeholder consultative process has very clear long-term vision, goal targets, strategic objectives, indicators to monitor success and activities to achieve the planned objectives and goals. I am confident that together we shall achieve the listed objectives and I look forward to seeing rhino populations back on our beautiful landscapes for years to come.

Conserving for Generations

Samuel Mwandha

EXECUTIVE DIRECTOR/CEO

EXECUTIVE SUMMARY

Increasing changes in former rhino ranges/habitats within Uganda, changing land use patterns, emerging extractive industry, hydro power and other developments and overall changes in operational environment require critical strategic approach to rhino and overall wildlife management. Following the national extinction of rhinos in Uganda in the 1980s due to illegal human activities and the long period it took to introduce/re-introduce rhinos back to Uganda, decision making based on strategic management approach, optimum and efficient use of resources in rhino conservation is the primary purpose of this National Rhino Conservation and Management Strategy for Uganda.

During the next ten (10) years, Uganda will enter a new phase of managing rhinos with a long-term vision of **a viable, secure, growing and locally valuable populations of indigenous rhino species that are ecologically and economically suitable contributing to the overall national development agenda and in line with national plans.** Emphasis will be on the following areas;

Rhino security, protection and law enforcement; the aim is to secure and protect existing and new populations of rhinos in Uganda by implementing effective legislation and law-enforcement. Rhino protection is part of the overall strategy of maintaining and boosting population growth rates by minimising mortalities due to poaching and snaring, addressing transnational organised crime syndicates involved in rhino poaching and securing horn stock piles from leaking into illegal markets.

Monitoring for management emphasises effective monitoring of Uganda rhino populations for informed management decision making. Rhino monitoring information enhances rhino security, guides personnel deployment, ensures informed biological management decisions and assesses progress towards meeting the overall strategic goal. A standardized monitoring system allows for comparison of data overtime and amongst different rhino sites.

Biological management aims at achieving an overall growth rate of at least 5% per annum in Ugandan rhino populations, and to promote long-term genetic viability of Uganda's rhino metapopulation. Rapid population growth rate provides buffer against losses due to poaching, limits excessive inbreeding, addresses sex ratios, habitat carrying capacity, predator dynamics and populations of competing browsers and management of invasive/alien species among others.

Rhino re-introduction and re-establishment, aims at supplementing founder numbers in the existing white rhino population and establish at least one new site with a viable white rhino population and one new site with a viable black rhino population to achieve a metapopulation management strategy. Currently, the small southern white population in Uganda has demonstrated breeding success hence the need to drive the process of developing viable rhino herds in the country. This will ultimately expand rhino range in protected areas and allow for re-introduction of the northern white rhinos back to Uganda. However, with the current precarious global population of the northern white rhinos, the future lies in assisted reproductive techniques.

Capacity; adequate human resource capacity is a critical strength for affective national rhino management program. This requires leadership, dedication, motivation, skills, training, infrastructure and logistical equipment.

Coordination and collaboration is aimed at strengthening national capacity for effective management of rhinos. Implementation of this strategy requires focused coordination and championing. A focal point and center that holds rhino unit together is a critical model in rhino management. Coordination frameworks ensures clear engagement pathways and allows responsibilities to be apportioned at local and regional levels and with development partners.

Communication and education promotes appreciation, understanding and value of rhino conservation. This is achievable through a robust public awareness program to raise the plight and profile of rhinos in Uganda as a species that should contribute to ecological, cultural and economic development of the country.

Funding; Rhino conservation is known to be an expensive undertaking. Securing adequate financial resources for effective implementation of the plan is a requisite in the plan implementation. Significant costs are associated with re-introduction and re-enforcement such as boma construction and maintenance, fencing, roads and other infrastructure, staff training and remuneration, capture, translocations and veterinary interventions, monitoring and protection all require adequate funding. There is therefore need for a demonstrated financial commitment and capacity to sustain the funding in the medium and long term.

The success of this strategy requires Uganda to cooperate regionally, continentally and globally in order to acquire the required founder rhino populations, technical and financial assistance. The establishment of the East African Rhino Management Group (EARMG), to which Uganda is a member is a critical vehicle for regional cooperation in rhino conservation and management in the region. Uganda shares in and is committed to the EARMG Nairobi declaration of May 11, 2009 that states as follows;

"Recognising the efforts and dedication of Eastern African States to effectively conserve rhinos; And realizing that a sustained strategic and cooperative approach to conservation and management of the taxa is necessary for recovery and growth; We, the representatives of the rhino range states, wildlife agencies and stakeholders in the region working under the umbrella of the East African Community on this date 11.5.09; Unanimously commit ourselves to working together to achieve effective rhino conservation in the region; through a shared regional strategy to achieve the overall goals, namely that;

I. A well distributed, growing eastern black rhino population, aiming at establishing 3000 animals collaboratively within 30 years.

II. Support all efforts to re-establish and recover the Northern White rhino within its former Eastern African range States.

III. Cooperatively manage southern white rhinos within the region as a species for community conservation, education and tourism and as a possible surrogate for the near extinct northern white sub-species".

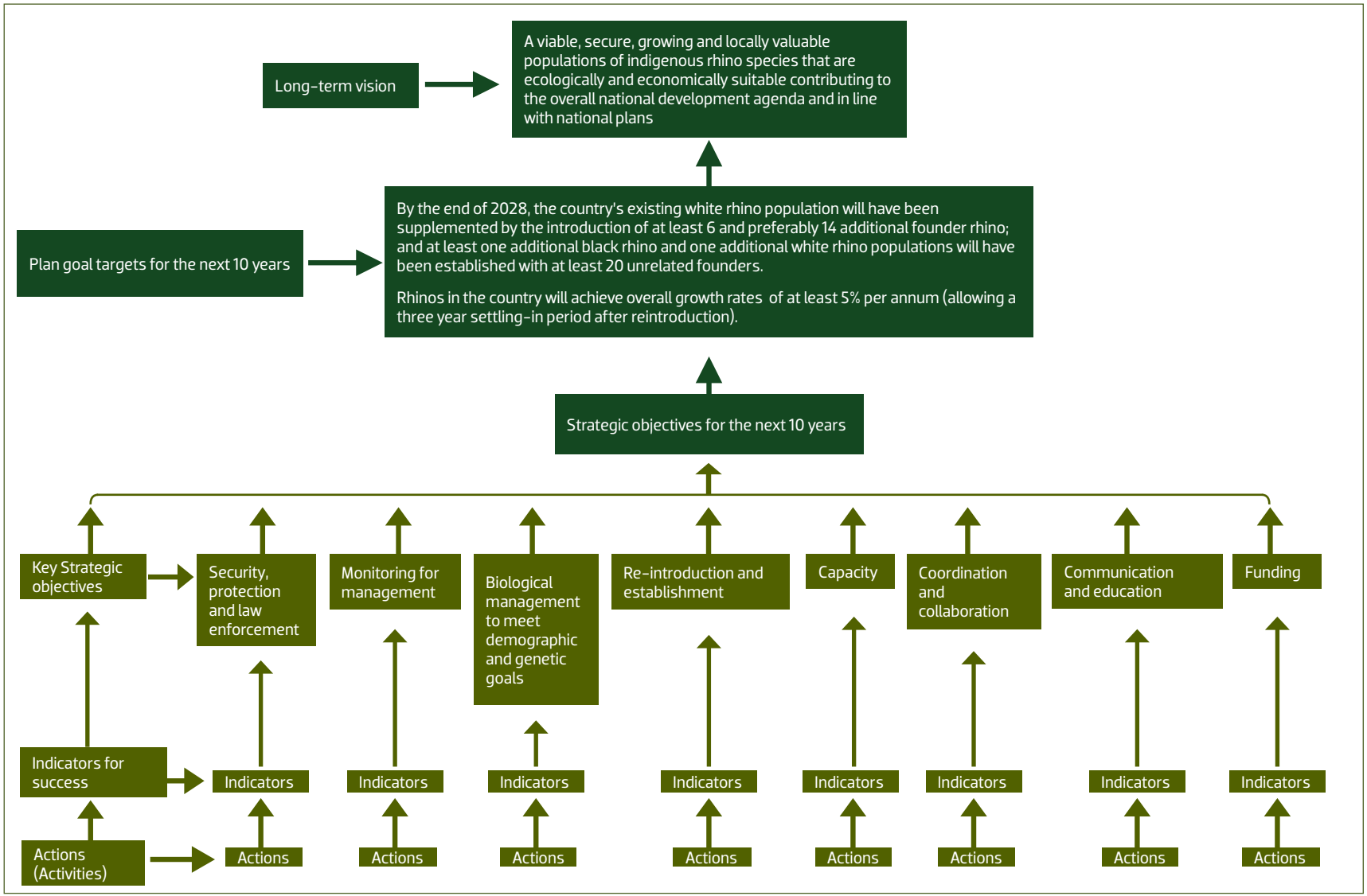
Uganda also draws experience from her recent active participation in the formulation of the draft continental African Rhino Conservation Strategy being spear headed by the Republic of South Africa.

A robust training of staff at all levels across the staff structure from the ranger category to middle and top level managers will be required. This will be achieved through the capacity development component of the UWA Human Resources Manual and the training plan in place.

The re-structuring of the Law enforcement Unit to include intelligence, investigations/canine units in addition to operations (the traditional patrol rangers) will go a step further in combating poaching and other illegal wildlife activities. New technologies and innovations including equipment have been acquired and deployed appropriately in rhino conservation efforts.

UWA's conservation area management model will ensure Chief Wardens and Wardens In-charge of protected areas (PA) assume more responsibilities of their PAs through decentralized authorities which should culminate into strong linkage and cooperation with communities and Local District Administration to ensure safety and appreciation of rhinos in Uganda.

PLAN AT A GLANCE



CHAPTER 1

1.0 Introduction

Up until the early 1970's, Uganda had a particularly rich and valuable wildlife estate, including some of the best managed and well visited National Parks in Africa. Uniquely in East Africa, the country had two species of rhinos living within its protected areas and beyond; the black rhino *Diceros biconis* of the eastern sub-species; *Diceros bicornis michaeli* and the white rhino, *Ceratotherium simum* of the northern sub-species; *Ceratotherium simum cottoni* respectively. By the end of the years of civil war in 1986, there was not a single rhino left. What was left of Uganda's National Parks and its wildlife has been continuing to decline in many areas since then, while recovering in others (Lamprey & Michelmore 1996 a,b), but the rhinos were still missing and are a major loss to both its former biodiversity and its assets for wildlife-based tourism.

Rhino poaching in Africa escalated at a rapid rate since 2008. This coincided with new uses of rhino horn and increasing disposable income in South East Asia. Black market prices and increased demand for rhino horn has soared with many rhinos being poached to satisfy this demand. Over the 7½ years since January 2008 to June 2015, at least 5,170 rhinos have been poached in Africa, with 1,299 rhinos poached in 2014 alone. If rhino poaching continues to increase at the rate it has been doing; projections suggest rhino numbers could start to decline around 2015–2017, before declining rapidly to very low numbers by the end of 2025. Thus unless poaching is brought under control, it threatens to reverse all the gains over the last two decades and push rhinos in Africa close to extinction, IUCN SSC AfRSG, 2016.

The conservation and protection of rhinos require high levels of management, law enforcement and funding to succeed in the face of continuing demand for high-value rhino horn world-wide. Following models of successful rhino projects in eastern and southern Africa, rhinos can be protected and will increase in numbers in relatively small, well-funded conservation areas. The introduction and re-introduction of rhinos to form new populations has been an important part of the recovery of numbers of black and white rhinos in the four countries namely; the Republics of South Africa, Namibia, Kenya and Zimbabwe which still hold significant populations of both species. The first stage in any program to re-introduce and re-establish wild rhino populations in a former range state is to carry out a feasibility study in order to identify the most suitable area (or areas) for conservation of rhinos. The study would in addition identify the best ways of ensuring re-introduction is done with minimal risks and threats and optimising the potential for building viable rhino populations.

The Government of Uganda through the Ministry of Tourism, Wildlife and Antiquities (MTWA) and Uganda Wildlife Authority commenced the program of re-introducing rhinos back to Uganda in 1997 with the launching of the Rhino Fund Uganda (RFU) an NGO whose overall aim was to bring rhinos back to Uganda. This move reflects a general motivation within the country to recover some of its losses of natural resources, including wildlife, suffered during the years of insecurity, and to restore some of the numbers and former variety of large fauna. So far, eight (8) Southern white rhinos; four (4) males and four females were successfully translocated to Uganda since 2001 from Solio, Kenya and Disney Animal Kingdom, Florida, USA respectively. Six (6) of these were put in a secure sanctuary at Ziwa Rhino Sanctuary as founders for the breeding program while the two were put at UWEC for education purposes. A successful breeding program is currently ongoing at Ziwa rhino sanctuary with sixteen (16) deliveries as of 14th February 2018, albeit with very limited founder population and skewed sex ratio. While Uganda can be very proud of its record of not having lost a single rhino since the recent upsurge in rhino poaching began in 2008; the country cannot afford to be complacent, and needs to double her efforts to protect and secure its rhino in the face of the increasing poaching threat.

1.1 Historical distribution of rhinos in Uganda

There are five species of rhinoceros; three of which live in Asia and two in Africa. The African species are the White rhino (*Ceratotherium simum*) and Black rhino (*Diceros bicornis*). The black rhino is predominantly a browser feeding mainly on twigs, stems, branches and leaves with its prehensile upper lip while the White rhino is a grazer preferring more open grassland and savannah habitats.

1.1.1 Eastern black rhino (D. b. michaeli)

Although probably never so numerous or widespread, black rhinos were common in the northern and north-eastern areas of Uganda until the mid-1960's (Figure 2), with an estimated country total of around 400 animals in 1962. Black rhinos ranged in the northern National Parks of Murchison Falls (North of the Nile) and Kidepo Valley up to the early 1970's, after which time devastating civil war, insecurity, and armed poaching accounted for almost all of them by the end of the decade. The last confirmed sighting of a black rhino in Uganda was in the Narus Valley in Kidepo in May 1983 (Olivier 1995b).

Within historical times in Uganda there has been a very distinct separation of the range of black rhino, found only to the North and East of the Victoria Nile and East of the Albert Nile, from that of the northern white rhino, found only to the West of the Albert Nile. In the earlier part of the century the range of the black rhino extended over much of north eastern Uganda, including the former Acholi, Lango and Karamoja districts.

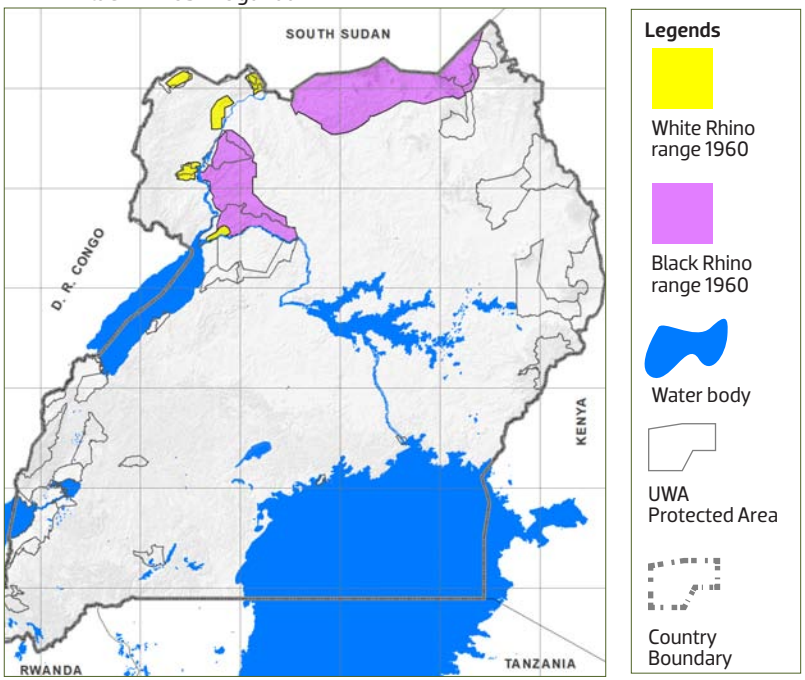
1.1.2 Northern white rhino (C. s. cottoni)

The northern white rhinos were confined originally to the extreme North West of Uganda. There are no records of any white rhinos on the East bank of the Albert Nile (GD 1925–1956). In the West Nile and West Madi districts, numbers were estimated at around 300 animals by 1951 and Capt. R J D Salmon recorded that all white rhinos in the area were 'exceptionally tamed' (GD 1929).

1.1.3 Southern white rhino (C. s. simum)

This is an out of range sub-species in Uganda. With the local extinction of the indigenous northern white sub-species and the impressive recovery of the southern white sub-species over time it was found suitable to introduce southern white rhinos to Uganda. The process that commenced in 2001 saw eight animals; four of each sexes translocated to Uganda from Solio in Kenya and Disney Animal Kingdom, USA respectively. Two of these (male and female) were put at UWEC and have not bred since 2001 while the six were put at Ziwa sanctuary under natural breeding conditions. As a result, the total number of rhinos at Ziwa sanctuary has multiplied from six individuals to in 2001 to the current 22 giving a country total of 24 rhinos in Uganda.

Fig. 2: Historical distribution as of February 2018 of northern white and eastern black rhinos in Uganda



CHAPTER 2

2.0 Legal Mandate

The Uganda government's resolve to conservation stems from the supreme law of the land and other national laws; Objective XIII of the Constitution of the Republic of Uganda, 1995 vests the ownership and protection of important natural resources including land, water, wetlands, minerals, oil, fauna and flora in the Government of Uganda on behalf of her people while objective XXVII (iv)(a) mandates the state including local governments to create and develop national parks, wildlife reserves and recreation areas and ensure conservation of natural resources.

Further, Objective 2 of the Uganda Wildlife Policy 2014 mandates government to manage wildlife populations in and outside wildlife protected areas, formulate and implement species-specific national conservation plans, strategies and programs for rare, threatened, endemic, endangered or extinct species.

Again, article 2(1)(a) of the Uganda Wildlife Act Cap 200 of the Laws of Uganda 2000 emphasises wildlife conservation while article 2(1)(d) targets the protection of rare, endangered and endemic species of wild flora and fauna. These national legal frameworks among others are the cornerstone for biodiversity conservation efforts in Uganda.

In historical times, Uganda had other pieces of legislation that ensured the conservation and management of wildlife. These included the Game Ordinance No. 7 of 1926 that established the Game Department to majorly mitigate against potential depletion of large game species such as rhinos, elephants, lions and hippos. The Game (Preservation and Control) Ordinance of July 1926 assessed and identified areas of high concentration of wildlife that culminated into their gazzettment into wildlife sanctuaries and Game Reserves. The National Parks Ordinance No. 3 of 1952 created the first two National Parks namely Murchison Falls and Queen Elizabeth National Parks and put the management of national parks under a semi-autonomous institution, then called the Uganda National Parks. The Game (Control and Preservation) Act 1964 identified additional areas for wildlife protection, and management of human-wildlife conflict. The rationalisation of the wildlife sector to the current set up was achieved through the enactment of the Uganda Wildlife Statute No. 14 of 1996 (Uganda Wildlife Act, Cap 200 of 2000).

Other ministry and sectoral policy frameworks and laws that govern wildlife conservation in Uganda include; the National Environment Policy 1994 and the National Environment Act, Cap 153 of 2000, Local Government Act, 1997, National Forestry and Tree Planting Act, 2003, Wetlands Policy, 1995, Oil and Gas Policy for Uganda, 2008; Fish Act, Cap 197 of 2000; Animal (Prevention of Cruelty) Act, Cap 220; Cattle Grazing Act, Cap 222 of 2000; Prohibition of Burning Grass Act, Cap 33 of 2000; Animal Diseases Act, Cap 218 of 2000 among others. Uganda is also a signatory to a number of Regional and International Treaties, Agreements and Conventions and continue to abide by the provisions of such laws.

2.1 International and regional obligations

It is a recognized principle of international law that once a state enters into an international treaty with one or more states or international organization or body, it undertakes to honor the obligations under that treaty both legally and morally. Uganda is a party to a number of international and regional treaties, agreements and conventions that relate to the conservation of biological diversity, though some of which needs to be ratified by government, they are being honored. These include among others;

2.1.1 The Convention on Biological Diversity, 1992

The Convention on Biological Diversity requires member states to establish a system of protected areas, develop guidelines for the selection, establishment and management of protected areas, and promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings and integration of sustainable utilisation of natural resources in national strategies.

2.1.2 Convention on International Trade in Endangered Species of wild fauna and flora (CITES) of 1973

This obliges member states to regulate international trade in endangered species of wild fauna and flora through international cooperation. The Ministry responsible for wildlife is the Management Authority of CITES in Uganda.

2.1.3 Convention on Migratory Species (CMS) of 1979

This convention obligates Uganda to conserve migratory species of wildlife across their migratory range. It also requires Uganda to cooperate with other states that form part of the migratory range of wildlife resources found or migrating through Uganda. Other protocols have been formulated under this convention and they include African–Eurasian Water bird Agreement (AEWA) which Uganda is a party to and Gorilla Agreement which Uganda is yet to ratify.

2.1.4 The Ramsar Convention, 1971

Obliges member states, Uganda inclusive to conserve and sustainably use wetlands through local and national actions and cooperate internationally on the management of transboundary wetlands, shared wetland systems and shared species.

2.1.5 The African Convention on the Conservation of Natural Resources, 1968

Is a Pan–African legal instrument for the conservation of the environment in general and biological diversity in particular. The parties to the convention undertake to establish and manage protected (conservation) areas and to protect certain species. Under the convention, parties are obligated to prohibit and regulate trade in specimens and trophies of protected species. States are required to incorporate the conservation and management of the natural environment in their development plans, promote conservation education and related research.

2.1.6 The Lusaka Agreement, 1997

The Lusaka Agreement on Cooperative Enforcement Operations directed at illegal trade in wild fauna and flora was adopted to provide for cooperation in reducing illegal trade in wild fauna and flora, both nationally and internationally. Uganda is a member of the permanent taskforce and Uganda Wildlife Authority in particular is the national bureau as required by this agreement.

2.1.7 East African Community Protocol on Environment and Natural Resources

This protocol obligates Uganda to sustainably conserve wildlife resources in partnership with the local communities. The protocol requires Uganda to cooperate in management of transboundary wildlife resources, promotion of social and economic incentives for conservation and to conclude agreements aimed at conserving transboundary wildlife resources.

2.1.8 Greater Virunga Transboundary Cooperation Treaty, 1991

Is a mechanism of strategic transboundary collaborative management of the Greater Virunga Landscape set up by IUCN, RDB and UWA in 1991. It mandates member countries to improve conservation of species, habitats and ecological services thus contributing to increased socio–economic benefits through effective transboundary collaboration.

CHAPTER 3

3.0 The Strategy Formulation Process

The process of developing the National Rhino Conservation and Management Strategy started with the development of a justifiable concept note by the Veterinary Unit under the sub-directorate of planning within the overall directorate of Conservation. This culminated into a draft working document which was shared internally, refined and presented both at departmental level and in Senior Management Meeting of Uganda Wildlife Authority. Comments were incorporated and a second draft developed and presented to the Ministry of Tourism, Wildlife and Antiquities and conservation partners. The product was a third draft that was shared with a wider conservation partners, rhino range states and IUCN SSC AfRSG. This culminated into the fourth draft that was presented at the international stakeholder's workshop in August 2015.

A small drafting committee comprising Joseph Okori of WWF, Ben Okita of Save the Elephant, Richard Emslie and Keryn Adcock of AfRSG, Linus Kariuki of KWS, Patrick Atimnedi and Alice Natukunda of UWA put together the outcome of the workshop. The fair document was again circulated to the wider conservation partners, range states and conservation NGOs, comments incorporated, the document was then presented to UWA Top Management and the BoT for approval.

CHAPTER 4

4.0 Structure of the Strategy

The Plan-at-a-glance in the summary highlights the logical structure of the National Rhino Conservation and Management Strategy for Uganda. The Vision statement sets out the organisational aspiration for rhino conservation and management in Uganda as a long term goal though the timeframe for the plan is ten (10) years. The ten year rhino strategy emphasises the health, security and viability of rhinos in Uganda that ecologically and economically contributes to the overall national development agenda. It has measurable short term goal targets, strategic objectives and actions. The achievement of these plan goal target ensures the achievement of the overall long-term vision.

4.1 The Strategy identifies eight (8) Key Strategic Objectives namely:

1. Security Protection & Law Enforcement
2. Monitoring for Management
3. Biological Management to meet demographic & genetic goals
4. Reintroduction and establishment
5. Capacity
6. Coordination and collaboration
7. Communication and education
8. Funding plan

A brief Rationale section is provided for each Strategic Objective to explain the significance of each Strategic Objective in meeting the plan goal targets. The Plan also highlights a number of SMART Key Performance Indicators which are measurable steps that describe what needs to be accomplished to achieve each Strategic Objective. Each KPI is also specified with a list of Actions which need to be implemented in order to achieve the particular target.

CHAPTER 5

5.0 Strategic Vision, Goal and Objectives

5.1 Vision

A viable, secure, growing and locally valuable populations[1] of indigenous rhino species[2] that are ecologically and economically sustainable contributing to the overall national development agenda and in line with national plans[3].

5.2 Plan goal targets

By the end of 2028, the country's existing white rhino population will have been supplemented by the introduction of at least 6 and preferably 14 additional founder rhino; and at least one additional black rhino and one additional white rhino population will have been established with at least 20 unrelated founders.

Rhinos in the country will achieve overall growth rates[4] of at least 5% per annum (allowing a three year settling-in period after reintroduction).

1 Managed as a national herd with occasional genetic interchange between populations (i.e. managed as a metapopulation)

2 Black rhino, *Diceros bicornis* and White rhino, *Ceratotherium simum*. The subspecies to be established would be the eastern black rhino, *D. b. michaeli*, and southern white rhino *C.s.simum* (given the unavailability of founder northern white rhino, *C.s.cottoni*). Should Assisted Reproductive Techniques ever succeed in rescuing the northern white rhino from extinction the vision would be for the re-establishment of the northern white rhino in Uganda)

3 Vision 2040, National Development Plan II, Tourism Sector Development Plan, UWA Strategic Plan and Wildlife Policy 2014.

4 Overall growth rates are after poaching, adjusted for translocations and allow an initial settling in period of three years. As an illustrative example supposing all the desired founder animals can be sourced, and are introduced after five years; then by the end of 2027, with 6 to 14 additional founders, numbers in Uganda's existing white rhino population should increase to at least 29-38; with at least 22 in each of the newly established populations. This would give a country total by the end of 2027 of 51-60 white rhino and 22 black rhino.

CHAPTER 6

6.0 Key components and their associated objectives

The Goal and these Targets will be achieved via the following eight Key Plan Components (with their associated Objectives).

I. **Security, Protection & Law Enforcement:** To secure and protect existing and new populations of Rhinos in Uganda by implementing effective legislation and law-enforcement.

II. **Monitoring for Management:** Effectively monitor the Ugandan rhino populations for informed management decision making.

III. **Biological Management to meet demographic & genetic goals:** To achieve overall growth rates of at least 5% per annum in Ugandan rhino populations, and to promote long-term genetic viability of Uganda's rhino metapopulation.

IV. **Reintroduction and establishment:** Supplement founder numbers in the existing white rhino population and establish at least one new site with a viable white rhino population and one new site with a viable black rhino population.

V. **Capacity:** To strengthen national capacity for effective management of Rhinos.

VI. **Coordination and Collaboration:** Effectively coordinate and collaborate with partners and stakeholders in rhino conservation.

VII. **Communication & Education:** To promote appreciation, understanding and value of rhino conservation.

VIII. **Funding Plan:** To secure adequate financial resources for effective implementation of the plan.

6.1 Security, Protection & Law Enforcement

Objective: To secure and protect existing and new populations of Rhinos in Uganda by implementing effective legislation and law-enforcement

Rationale:

- Rhino protection is part of the overall strategy of maintaining and boosting population growth rates by minimising mortalities due to poaching and snaring.
- Ensuring security of horn stocks and preventing their leakage onto the illegal market is also important and requires good horn stockpile management and control.
- Given Uganda's historical experience and the current severe and escalating Africa-wide poaching threat, the country cannot afford to be complacent, and needs to strengthen and increase efforts to protect and secure its rhino.
- Transnational organised crime syndicates have become increasingly involved in rhino poaching, which poses a threat to national security. In response, International agencies and meetings (e.g. CITES, London and Kasane Meeting Declarations) have argued for wildlife crimes to be elevated internationally to priority crimes.
- Combating poaching requires effective proactive law enforcement measures to prevent rhino killing. Field anti-poaching requires sufficient densities of trained, sufficiently facilitated, motivated and well led rangers that are properly equipped with modern law enforcement equipment and appropriate firearms.
- It is increasingly recognised that involving and engaging communities can also play a vital role in combating poaching.
- Effective prosecution of criminals and deterrent sentencing should increase the risks and costs to poachers/traffickers and shift the cost: benefit against the criminals. Where possible prosecution should argue for significant custodial sentences because criminals are easily able to pay fines and would be back in circulation to further threaten rhinos.
- Current weak penalties are not a deterrent to poachers and traffickers, and as a result legislation is currently under review in line with CITES and International Meetings (London and Kasene) that have called for the revision of legislation to ensure penalties for rhino crimes are a deterrent. Uganda's current Wildlife Act allows for seizure of assets used in the committing of crime, but there are no special penalties for rhino crimes.
- Effective investigations and combating syndicates requires maintaining and improving intelligence gathering and intelligence analysis (both locally and regionally), including enlisting support of communities in the fight against poaching.
- High-level and increased co-operation and collaboration among relevant national agencies such as MTWA, UWA, Security Agencies, Customs, Immigration, Uganda Revenue Authority, Directorate of Public Prosecution and Judiciary) and internationally is needed to successfully combat rhino poaching and trafficking.
- Improved intelligence requires provision of effective surveillance equipment and analytical tools, and building capacity in crime scene, and forensic techniques.
- A range of measures can enhance efforts to address severe poaching threats including dehorning that can be considered as part of a protection strategy (through reducing the potential profit to poachers, and thus greatly reducing their incentive to kill rhino).
- Crime scene management is a vital part of investigations.
- Security clearance and routine vetting for all staff working in rhino areas (e.g. using Layered Voice Analysis) is recommended.
- The use of specialist prosecutors for rhino cases is strongly recommended.

KPIs

- Legislation revised to include appropriate deterrent penalties by year 2.

A. Reduction in percentage of rhinos poached.

- Percentage of cases successfully prosecuted.
- Rhino horn stockpile and other derivatives fully secured and managed

Actions

- Case completion and prosecution rates can be enhanced through early interaction between investigators and prosecutors.
- Upon conviction, the leading of expert witnesses by the prosecution can be used to present arguments in aggravation of sentence.
- Rangers need to know the importance of keeping everyone away from and securing the scene of a rhino crime to ensure evidence is not destroyed. Scene of Crime investigations should only be carried out by limited trained experts.

Key Component 6.1: Security, Protection and Law Enforcement

Objective: To secure and protect existing and new populations of Rhinos in Uganda by implementing effective legislation and law-enforcement.

KPIs :

- **A.** Legislation revised to include appropriate deterrent penalties by year 2.
- **B.** Reduction in percentage of rhinos poached.
- **C.** Percentage of cases successfully prosecuted.
- **D.** Rhino horn stockpile and other derivatives fully secured and managed

B. Legislation revised to include appropriate deterrent penalties by year 2.

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
i) Review the Wildlife Act Cap 200 of 2000 to provide deterrent penalties.	MTWA	Ongoing	• The revised Wildlife Act in place	• Enabling political support required.
ii) Enact regulations to operationalize the Wildlife Act for effective implementation of the rhino strategy.	MTWA/UWA	Ongoing	• Regulations for the management of endangered species enacted	• Enabling political support required.

C. Reduction in percentage of rhinos poached

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
Undertake risk /threat assessment for all sites	UWA/RFU	Annually	• Risk Assessment Report, • Sites with assessment reports	• In house technical capacity to undertake risk assessment in place
Undertake man power needs assessment	UWA	Annually	• Manpower Needs Assessment Report	• Delay in appointing rhino staff according to establishement
Create a special rhino protection force	UWA	Third year	• Unit in place	• Funding will be available
Identify and carry out specialized training for rhino rangers	UWA/Police	Fourth year	• Training reports and • Number of rangers trained	• Funding will be available
Acquire and deploy appropriate smart technology for intelligence and law enforcement monitoring.	UWA/RFU/Police/Army	Fifth year	• Number of equipment acquired and deployed	• Funding will be available
Secure appropriate equipment for both air and ground surveillance, communication and reaction capabilities	UWA/RFU/Police/Army	Fourth year	• Number and type of equipment in place	• Appropriate clearance by National Security will be granted
Develop SOPs for anti-poaching operations and other aspects of LE (e.g. crime scene management)	UWA	Third year	• SOP in place and implemented	• Delay in approval of SOPs
Establish and maintain efficient communication/ liaison structures between relevant law enforcement agencies (UWA, Security agencies, Customs, Immigration, DPP, and Judiciary etc.)	UWA/Police/Army/Customs/ Immigration	Third year	• Communication Protocol/ Minutes of meetings	• Willingness by other institutions to be part of rhino conservation efforts
Participate in all regional initiatives for rhino security	UWA	Continuous	• Number of meetings attended	• Funding will be available
Ensure appropriate boundary fencing, maintenance and checking done in accordance with fencing plan	UWA	First two years	• Fencing plan and Fence in place	• Funding will be available

D. Percentage of rhino cases successfully prosecuted.				
Activities/Actions	**Who is Responsible /Champions**	**By when (if appropriate)**	**Indicators for Actions (if appropriate)**	**Comments, Threats, Constraints, Conditionalities**
i) Effectively investigate and prosecute all poaching cases	UWA/Police/DPP	Continuous	• Percentage of cases successfully prosecuted per annum • No. of cases successfully prosecuted per annum	• Cooperation from the different arms of government involved in crime investigation
ii) Establish and maintain effective local and wider intelligence networks	UWA/Police/Army	Second year then continuous	• No of Intelligence led arrests. • No of foiled poaching attempts	• Cooperation from the different security agencies and investigators.
iii) Establish and maintain specialist investigators	UWA/Police/DPP	Second year then continuous	• Percentage of cases successfully prosecuted per annum due to effective investigation	• willingness to recruit and train investgators • Willingness by Police and DPP to second investigators to UWA
iv) Use nearest accredited RhoDIS capable laboratory to process DNA samples, and establish a forensic laboratory for improved analysis	UWA/RFU/MAAIF/MAK-CoVAB	Fifth year	• Percentage of cases successfully prosecuted per annum • Forensic laboratory in place and operational.	• Funding will be available
v) Develop and maintain comprehensive crime information management system/ database	UWA/Police	Third year	• Software in place	• Funding will be available
vi) Improve prosecution through use of RhoDIS DNA and other forensics	UWA/Police/DPP	Fifth year	• Percentage of cases successfully prosecuted per annum	• Funding will be available
vii) Strengthen Canine Unit in detecting Rhino derivatives and tracking and apprehending Rhino poachers	UWA/Police	Second year	• No of arrests effected	• Funds will be available to acquire and train sniffer dogs and dog handlers
viii) Strengthen liaison between UWA and DPP and the use of dedicated Wildlife Prosecutors	UWA/DPP	First year then continuous	• Proportion of cases prosecuted by Wildlife Prosecutors	• Cooperation by DPP and prosecutors
E. Rhino horns stockpile and other derivatives fully secured and managed				
Activities/Actions	**Who is Responsible /Champions**	**By when (if appropriate)**	**Indicators for Actions (if appropriate)**	**Comments, Threats, Constraints, Conditionalities**
i) Consolidate all stocks of rhino horns and derivatives in secure central place and maintain a database	UWA	By first quarter of Year 1 and maintained on a continuous basis	• Rhino horn and derivatives stock audit reports • Database in place	• Appropriate and secure strong room will be in place
ii) Enhance and maintain security and management of rhino horn stockpiles to agreed standards.	UWA	Continuous	• Audit and annual stocktaking reports	• Staff with proven integrity in charge of rhino horn stock pile management
iii) Participate in existing RhoDIS continental rhino horn DNA database.	UWA	Second year onwards	• Number of rhino samples sent for DNA profile • Number of staff trained	• Rhino samples and relevant information will be fed timely into the RhoDIS continental database
iv) Fit micro-chips to all non-tagged rhino horns in stock and implement systems for fitting micro-chips to all retrieved horns.	UWA	Second year and maintained continuously and reviewed annually	• Number of horns with microchips	• Funding will be available

6.2 Monitoring for Management

Objective: Effectively monitor the Ugandan rhino populations for informed management decision making

Rationale:

- Monitoring is undertaken to provide information for enhanced security, make informed biological management decisions, and to assess progress towards meeting the overall strategic plan goal.
- Monitoring of populations should be based on individual recognition and use of appropriate monitoring equipment and technology. As individual rhino identification is the basis of rhino monitoring for effective management, we need to ensure all newly introduced individuals are ear notched, and that periodic ear notching of unmarked calves takes place in all rhino population.
- Personnel with the necessary skills to undertake monitoring would be critical to ensure proper field coverage to find rhino, and quality data collection.
- To be able to compare data over time, and amongst rhino sites within and outside Uganda, it is recommended that standardized monitoring systems are used.
- Proper monitoring database management, and timely data analysis and interpretation is vital for sound decision making for rhino management.
- Monitoring involves collection of timely and good quality data to determine population status, dynamics and reproductive health. This includes monitoring individual movement patterns, changes in social behavior, home-range sizes and body condition.
- In addition, factors that may affect performance of rhino also need to be monitored, such as predation, density of competing herbivores/grazers, and vegetation changes over time.
- Rhino location information from monitoring can guide patrol deployment and increase protection. This information is sensitive and should not be made freely available outside of site management. However general rhino ranging patterns can assist in designing tourist infrastructure development.
- Frequent and systematic monitoring of rhino helps in detection of rhino health issues which require interventions, and ensure these are implemented in a timely and appropriate manner.
- Sharing of rhino status and performance information at the national and regional level is important in assessing the delivery on rhino population targets and lessons learnt.

KPI's

- Number of required rhino status reports and annual Rhino Status Report Summaries produced.
- Number of evidence-based rhino management decisions made from monitoring information.

Actions

- Ear-notching all introduced rhino before release to ensure individual identification
- Periodical marking of unrecognizable / clean rhino with new ear notches to maintain sufficient numbers of recognizable rhino in the population
- Take samples using recommended protocols from all interventions and introduced rhinos for DNA profiling and submit the samples for analysis to a RhODIS accredited laboratory to maintain chain of evidence for forensic needs, and ensure accurate collection of associated sample meta-population data
- Find and identify all rhinos within a specified time period in each rhino area using standardized AfRSG recommended methods
- Establish a database of rhino sightings and individual rhino identity and life history information as per AfRSG guidelines.
- Regularly backed up database
- Reporting as required by relevant local-level, national and international authorities
- Standardized Annual Status Reports to be produced.
- Vegetation, rainfall, large herbivore and predator numbers to be monitored and analysed as per an agreed protocol in both black and white rhino areas
- Produce disease monitoring, surveillance and diagnostic protocols and implement in all rhino areas e.g. tsetse fly monitoring, anthrax among others

Key Component 6.2: Monitoring for Rhino Management

Objective: To effectively monitor rhino populations in Uganda for informed management decisions to meet the overall strategic plan goals

KPIs:

A. Number of required rhino site status reports and annual rhino status reports produced

B. Number of evidence-based rhino management decisions

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
A. Number of required rhino site status reports and annual rhino status reports produced				
i) Ear-notch and take samples for DNA profiling of all introduced rhinos before release and analyse the samples in a RhODIS accredited forensic laboratory	National Rhino Coordinator / Head- Veterinary Unit	As and when rhinos are translocated to Uganda	• 100% of introduced rhino have ear notches and DNA profiles	• NRC to keep track of Ugandan rhino ear-notches and provide new ear-notch codes to donor organization to use in translocated rhino. • May need to modify already-existing ear-notches on "donated" rhino
ii) Periodically ear notch unrecognizable / clean rhinos to maintain sufficient numbers of recognizable rhino in the population.	National Rhino Coordinator / Head-Veterinary Unit	As and when needed in rhino populations	• 90% of rhino ear-notched and DNA profiled	• Cost of undertaking notching • Some calves may be too young to ear-notch
iii) Take samples for DNA profiling during interventions using recommended protocols and send samples for analysis to accredited forensic laboratory	Head of Veterinary Services/ National Rhino Coordinator	During rhino interventions such as ear notching, immobilizations for treatment.	• Number of samples collected using recommended protocol • Number of samples at an approved forensic laboratory. • Sample database maintained • Report assessing genetic diversity in populations	• Capacity for DNA sample collection • Funds to undertake the analysis
iv) Locate and identify all rhinos within a specified time period in each rhino area using standardized AfRSG recommended methods	Officer in charge of monitoring staff in each rhino areas/ NRC	Continuous as per sites specified time-frame	• Identikit rhino ID master files set up and maintained • Monthly sighting reports indicating sighting levels, births, deaths and other events (such as sample collection) in that month. • Periodic audits of field monitoring system	• Officers/managers to use monthly sighting reports to adjust and improve monitoring effectiveness (local adaptive management) • Use standardized AfRSG ID methods
v) Establish a rhino database, regularly update and back up rhino sightings and individual rhino identikit and life history information as per AfRSG guidelines.	Chief Warden/Site managers in each rhino area/NRC	Set up within 1 week of rhino introduction. Maintain daily / weekly back-up monthly	• Up-to-date functional database and backups exist.	• Photographs/ copies of sightings registered and master file pages and/or this information is captured using Excel templates for sighting data and master file data with back up files stored in a different location.
vi) Reporting as required by relevant local-level, national and international authorities	Chief Warden/Site Mangers / NRC	To be specified by relevant authorities	• No. of reports at different levels	• UWA, donors and AfRSG each have reporting requirements

B. Number of evidence-based rhino management decisions made				
i) Standardized Annual Status Reports to be produced.	Uganda Rhino Management Committee, Managers of individual reserves and National Rhino Coordinator	Annually	• Annual Status report produced which contains the essential information to inform population (biological) management decision-making.	• NRC to play a key role in ensuring the individual reports are produced. • NRC to collate a summary document to circulate back to stakeholders. • The reports to include; Rhino numbers, growth rates, indicators of female calving rates & calf survival rates, mortality rates and cause breakdown, sex/age structure, statement on inbreeding status, removals & introductions undertaken.
ii) Monitor and analyse vegetation, rainfall, large herbivore and predator numbers as per agreed protocol in both black and white rhino areas	NRC to obtain this from relevant unit(s) within UWA. Private site managers to obtain from own sources	Vegetation status assessed once every 5 years. Herbivore numbers assessed once every two years in line with UWA animal census program	• Reports on vegetation assessment, biomass densities, competing herbivores and predators • Management decisions made from the reports	• Additional information to inform population (biological) management decision-making.
iii) Confirm health status of identified rhinos for introduction from source countries before transportation	Head of Veterinary Unit / Veterinarians from Donor Country and NRC	Before rhinos are translocated to Uganda	• Veterinary clearance reports	• Clearance from Directorate of Veterinary Services from source and recipient country
iv) Produce disease monitoring, surveillance and diagnostic protocols and implement in all rhino areas e.g. Monitoring tsetse fly densities, anthrax among others	Chief Warden/ Site Mangers/ Head-Veterinary Unit	Continuous/ As needed	• Disease monitoring and surveillance reports produced and acted upon • Tsetse fly levels do not exceed accepted densities	• Failure to undertake disease surveillance and monitoring can lead to rhino mortalities

6.3 Biological Management to meet demographic and genetic goals:

Objective: To achieve overall growth rate of at least 5% per annum in Ugandan rhino populations, and to promote long-term genetic viability of Uganda's rhino metapopulations.

Rationale:

- Achieving high population growth rates is very important in biological management, to ensure that the maximum gene-allele diversity in each rhino populations passed on to future generations, minimises loss of genetic diversity and genetic drift. Rapid population growth provides an increased buffer against potential losses from poaching.
- A national and regional meta-population management approach is also required to maintain genetic diversity, where one or more breeding rhino is swopped between Ugandan populations, or introduced from outside Uganda, every rhino-generation (14.5 years)
- Biological management for maintaining genetic diversity also seeks to limit excessive inbreeding in the rhino, or domination of breeding by particular males for many years.
- A key to achieving good growth is to maintain rhino numbers at productive densities (the maximum productivity level is around 75% of rhino ecological carrying capacity of an area).
- Management of the sex structure of rhino populations may be needed, because male territoriality can lead to fighting and rhino deaths if there are too many adult males. This can easily happen because the birth sex ratio of rhino is biased to males (53% males are born on average), and by chance even higher proportions of males may be born. Having more adult females than adult males helps to improve the calving success of each female, resulting in faster population growth.
- The biomass of other large herbivores can negatively impact rhino habitat and carrying capacity, and where appropriate, densities of competing species will need to be lowered to preserve habitat productivity.
- Biological management must also include the control of invasive / alien plant species, as these have the potential to reduce habitat suitability for rhino.
- Rhino-area management should also include management of predators if needed, burning regimes to maintain rhino food resources in the appropriate states, and relevant interventions for rhino health and disease prevention.
- With good rhino population growth and each site approaching its ecological carrying capacity, surplus rhinos can be translocated to new suitable areas in Uganda.
- Specific research on black and white rhino habitat dynamics in Uganda has been identified as a key need, to inform the long term rhino management programme.

Key Performance Indicators

- Each established rhino population is growing at 5% or more per year.
- Numbers of new individuals introduced to the existing white rhino population to reduce inbreeding and increase founder numbers

Actions

- Manage rhino population sex and age structure when needed
- Manage rhino population density if near carrying capacity
- Manage fire regimes to enhance habitat suitability for rhino
- Ensure availability of water and minerals at all times
- Control invasive, alien or poisonous plants in rhino areas
- Manage predators and competing herbivore densities if needed
- Ensure appropriate and timeouts veterinary care of all rhino
- Undertake needed rhino habitat research
- Assess the reproductive potential of the Ugandan Zoo (UWEC) rhino

Key Component 6.3: Biological Management

Objective: To achieve overall growth rate of at least 5% per annum in Ugandan rhino populations, and to promote long-term genetic viability of Uganda's rhino metapopulations.

KPIs:

A. To promote long-term genetic viability of Uganda's rhino metapopulations

B. To achieve overall growth rates of at least 5% per annum in Uganda's rhino populations

A. To promote long-term genetic viability of Uganda's rhino metapopulation

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)
Management of rhino population structure			
i) Review rhino numbers, and the sex ratio of each rhino age class at each rhino site, through the Ugandan rhino status report summary.	NRC / Rhino Management Committee	Annually	• No. of review meetings held to review rhino status, reports
ii) Actions are taken to maintain appropriate sub-adult and adult sex ratios (especially to prevent excessive male biases). Reduce inbreeding levels where needed by translocating offspring, or males which have dominated breeding for >20 years. Introduce new blood into each population at least once per generation (14.5 years) by means of swopping at least breeding males or female between sites within Uganda with populations in other rhino Range States.	NRC, Site Managers, Veterinary Unit, Rhino Capture team		• Appropriate translocations and genetic swops undertaking
Rhino population density management			
iii) Derive recommended rhino off-take levels based on either set % harvesting, or based on keeping the populations at or below 75% of ecological carrying capacity.	NRC / Rhino Management Committee	Removals can occur every 1 to 5 years, but preferably frequently enough not allowing rhino densities to exceed ECC for more than 2 years.	• Numbers of rhino removed.
iv) Remove recommended numbers paying attention to the sex & age structure of rhino to removed	NRC, Site Managers, Veterinary Unit, Rhino Capture team		• Status reports show that rhino densities have not exceeded estimated carrying capacity for more than two years

B. To achieve overall growth rate of atleast 5% per annum in Uganda's rhino population

Fire management			
i) All areas with rhino subpopulations to have an effective and proactive fire management strategy in place with sufficient effective fire breaks.	NRC, Planning Unit and Chief Wardens	If not already in place, within 1 year of a new rhino area being established	• No fires have occurred which have resulted in rhino deaths • Habitat surveys and or research studies indicate;
ii) Where appropriate, control burns are applied as needed to maintain suitable habitat for white and black rhino		Ongoing	• For white rhino areas: good white rhino habitat through removing moribund grass and reduced bush encroachment. • For black rhino areas: Net spatial extent of bushland and shrubland is not declining. Suitable food woody plant size structure and density is maintained or improved
iii) The densities of competing browsers and predators are reduced if and when needed, using appropriate translocation and re-location methods.	Site managers/Ecological Monitoring and Research Unit/ Veterinary Unit	When needed	• Numbers (and resulting biomass) of competing herbivores removed from rhino area

Ensure availability of water and minerals			
iv) Ensure adequate water availability in each rhino areas in the dry season, in sites where potential mineral deficiencies or imbalances have been identified, provide suitable mineral-supplement licks for rhino.	NRC, Site Managers	Seasonal check-ups or during droughts	• Animal counts indicate that the competing herbivore biomass-density in the rhino area is not exceeding the site's total herbivore carrying capacity • Artificial water points are set up and supplied with water when needed and appropriate mineral lick/blocks are made available when needed.
Zoo Rhinos			
v) Have the Zoo female and male at UWEC evaluated for their reproductive potential.	UWA, MTWA, UWEC, RFU	First year of the plan	• Evaluation report provided, with recommendations on how to proceed with getting breeding from the Zoo rhinos.
Control invasive alien plants, or poisonous plants			
vi) Implement effective control programmes for invasive alien plants in each rhino area where needed. Poisonous alien or indigenous plants are also to be controlled if periodic outbreaks occur within rhino areas	Site Managers / NRC	Annual - alien plant eradication programme in place As needed - poisonous plant outbreak control	• Alien and poisonous plant control activities undertaken in sites which have identified problems
Undertake Habitat research			
vii) Undertake research in rhino areas to improve understanding of vegetation dynamics and large-herbivore impacts on rhino food plant resources (grazing and browse), to guide management of rhino habitats.	NRC, UWA EMRU, Ugandan Universities, Habitat experts to assist and provide training	As needed upon agreement with site managers	• Site inspection demonstrate alien or poisonous plants have been adequately controlled or eliminated • Research undertaken and reports completed
Manage predators			
viii) Where specific lion or hyena individuals or groups display excessive killing of rhino calves or sub adults, steps should be taken to translocate or cull some of these, to prevent detrimental impacts on rhino population viability.	NRC, Site Managers, Veterinary Unit.	As needed upon agreement with site managers and predator advisors	• Number and type of predators relocated or culled • Reduction in mortalities of calves and/or sub adults is documented in annual status reports
Ensure appropriate veterinary care			
ix) Timely veterinary care is provided at all times to injured rhino. Where feasible, rhino are provided with preventative or palliative treatment for specific dangerous diseases if they are considered a threat to the rhino population.(Clostridium, nagana, anthrax, babesiosis, etc.)	NRC, Site Managers, Veterinary Unit, Rhino Capture team	As needed	• Veterinary records demonstrating treatments/veterinary interventions provided. • Numbers of rhino assisted

6.4 Re-Introduction and re-establishment:

Objective: Supplement founder numbers in the existing white rhino population, establish at least one new site with a viable white rhino population and one new site with a viable black rhino population

Rationale:

- Uganda currently has one small southern white rhino population, and has demonstrated success in establishing and protecting rhino and producing good population growth. The main aim of this Strategic Plan is to drive the process of developing viable rhino herds in Uganda.
- In the next 10 years the aim is to re-introduce a black rhino population to Uganda, and expand white rhino populations in Uganda's Protected Areas and possibly other suitable range-land sites under private, public or community ownership.
- Establishing genetically viable rhino populations requires that the best sites are chosen to meet both the habitat and security requirements of rhino. In addition, in order to obtain founder rhino from institutions in other countries, the potential donor will need to inspect / assure themselves that both the rhino introduction site infrastructure and management capacity is adequate, and that viable funding plans exist to ensure the successful establishment and future of the rhino population.
- Uganda would ideally like to be able to re-introduce the Northern subspecies of white rhino. However, with only three known (non-reproductive) animals remaining (1 in USA, 2 in Kenya), the only current hope for the future of this subspecies lies in Assisted Reproduction (AR) methods. The chances of success using AR are considered minimal, and are not likely to produce animals for wild re-introduction within this Strategic Plan period.

KPIs

- Supplement founder numbers in existing white rhino population
- Establish at least one new site with a viable white rhino population with 20 viable founders
- Establish at least one new site with a viable black rhino population with 20 viable founders
- Monitor and support efforts in assisted reproduction of northern white Rhinos

Actions

- Ugandan Government to request additional rhino for the existing white rhino site from South Africa, Kenya or Zoos, by the second year of the plan.
- Re-evaluate habitat carrying capacity in the existing white rhino site and produce habitat maintenance plan by end of first year of the plan.
- Identify and assess new sites for white rhino and black rhino introduction by end of first year. Assessment skills are transferred to Ugandan staff.
- The best Protected Area sites for white and black rhino are chosen, and possibly an additional good site for white rhino on public, private or community land is chosen.
- Re-evaluate possibility of keeping rhinos at Ziwa where the 30 year lease agreement between the owner and RFU signed in 2002 expires in 14 years.
- Ugandan Government to request founder rhinos for the chosen white and black rhino sites by the beginning of the second year of the plan.
- Form a sanctuary-establishment team for each site and establish sanctuaries at chosen sites with adequate infrastructure and staffing.

KPI's

- Number of new white rhino founders introduced to the existing white rhino site
- Number of new white rhino populations created
- Number of new black rhino populations created
- Number of black and white rhino founders in the new populations

Key component 6.4: Re-introduction and establishment

Objective: Supplement founder numbers in the existing white rhino population, establish at least one new site with a viable white rhino population and one new site with a viable black rhino population

KPIs

- **A.** Supplement founder numbers in the existing white rhino population
- **B.** Establish at least one new site with a viable white rhino population with 20 viable founders
- **C.** Establish at least one new site with a viable black rhino population with 20 viable founders
- **D.** Monitor and support efforts in Assisted Reproduction of Northern White Rhinos

A. Supplement founder numbers in the existing white rhino population

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
Additional founders requested				
i) Ugandan government formally requests 6-14 southern white rhino from Kenyan or South African governments, or international Zoos (EAZA, AAZA)	Ministry of Tourism, Wildlife and Antiquities	Make formal request by the beginning of second year	• Formal requests made to Kenya / South Africa / International Zoos	• Possible delays in approval of the Rhino Strategy
Habitat re-evaluation and maintenance				
i) Re-assess the current rhino site at Ziwa rhino sanctuary for security, habitat quality and carrying capacity.	UWA, Site Management, White rhino habitat advisors	By end of the first year,	• ECC assessment report • Habitat is opened up with less woody cover	• A funding plan and long-term funding partners are needed to ensure survival of Ziwa Rhino Sanctuary as a breeding engine for Uganda's rhino programme
ii) Re-evaluate the feasibility of keeping rhinos at Ziwa in light of the 30 year lease agreement signed in 2002 expiring in 14 years from now	UWA, RFU, Site management and advisors	End of first year	• Evaluation report in place	• Rhino program is a long term undertaking. A permanent home, rated for all threats to rhinos and found suitable for rhino program in the long term is recommended.
iii) Habitat management at the current white rhino site is undertaken to maintain or improve the carrying capacity for white rhino (eg. Bush clearing)	MTWA, UWA, RFU, Site management and advisors	From year, then continous	• Cattle management and fire programmes are codified to provide long term guidance for management	• Steady flow of funding in place.

B. Establish One (1) new site with a viable white rhino population with 20 viable founders				
Site Identification				
i) Make a shortlist of likely PA's	UWA and NRC	By end of first year	Shortlist provided	• Funds and assessment consultants are needed to undertake this activity
ii) Carry out assessment surveys (using criteria used in Kenya and South Africa) to rate suitability of habitats and security, and decide on the best site for the new white rhino area. The potential for economic development and improving livelihoods must also be accounted for.	NRC and Consultant	By end of first year	• Site assessment reports • Best PA site for white rhino introduction identified	• Funds and assessment consultants are needed to undertake this activity
iii) Training of local Ugandans (from UWA, UWEC and rhino sanctuaries) in white rhino site habitat and security assessment	NRC to engage consultants for detailed surveys, including security threat analyses of shortlisted sites, and assessment skills transfer to relevant agencies in Uganda	By end of first year	• White rhino habitat assessment and Security assessment skills transferred to relevant Ugandan institutions	• Local Ugandan staff will be available for training
iv) Make a shortlist of likely public, community or private sites. Sensitize and negotiate with landowners in order to set up partnerships for white rhino introductions and management	UWA, NRC with relevant Ministries and private or community organizations	Shortlist by end of first year	• Shortlist produced	• The private sector willingness to invest in white rhino conservation and management
Assess partnership sites as above				
i) Once sites are assessed and the best site(s) identified, Uganda government can formally request 20 white rhino per site from Kenyan or South African governments, or international Zoos.	Ministry of Tourism, Wildlife and Antiquities	Assess by end of first year Formal requests for white rhino made by end of first year.	• Relevant land owners and potential partners sensitized and negotiations initiated • Sites assessment reports • Formal requests made to Kenya / SA	• Funds and assessment consultants will be available to undertake this activity
ii) Form one or two sanctuary-establishment teams, which will be responsible for readying the new site(s) for rhino introductions.	Site Manager and Sanctuary	By the first three years (assuming 3 years for site development).	• Sanctuary with proper infrastructure and resources is set up	• Funding needs to be made available for site infrastructure development and suitable staff need to be deployed
iii) Establish a sanctuary with suitable fencing and boma facilities, upgrades to other infrastructure as needed, and the required staff compliment, to ready it for rhino introductions	UWA, NRC, RFU	By year three	• Sanctuary established	• Funding needs to be made available for site infrastructure development and suitable staff need to be deployed • A detailed funding plan for the short (rhino introduction process) and long term (ongoing running of the rhino area) need to be in place

C. Establish one (1) new site with a viable black rhino population with 20 viable founders				
Site identification				
i) Make a shortlist of likely PA's for black rhino introduction	NRC with UWA Chief Wardens for shortlist of PA's NRC to engage consultants for detailed surveys, including security threat analyses shortlisted sites, and assessment skills transfer to relevant agencies in Uganda	By end of first year	• Shortlist provided and in place • Site assessment reports	• Funds and assessment consultants will be available to undertake this activity
ii) Carry out assessment surveys (using criteria used in Kenya and South Africa) to rate suitability of habitats and security, and decide on the best site for the new black rhino area. The potential for economic development and improving livelihoods must also be accounted for.	NRC and Consultant	By end of first year	• Best PA site for black rhino introduction identified	• Funds and assessment consultants are needed to undertake this activity
iii) Training of local Ugandans (from UWA, UWEC and rhino sanctuaries) in black rhino site habitat assessment and management.	NRC	By end of second year	• Black Rhino habitat assessment skills transferred to relevant Ugandan institutions	• Local Ugandan staff will be available for training
iv) Once black rhino sites are assessed and the best site identified, Uganda government formally requests 20 black rhino from Kenyan or South African governments, or international Zoos.	Ministry of Tourism, Wildlife and Antiquities	Make the formal requests for black rhino by end of the first year.	• Formal requests made to Kenya / SA	• Possible delays in approval of the Rhino Strategy.
v) Form sanctuary–establishment teams which will be responsible for readying the new site for black rhino re–introductions.	Site Manager and Sanctuary Establishment Team	By the first three years (assuming 3 years for site development).	• Sanctuary with proper infrastructure and resources is set up	• Delays in site establishment
vi) Establish the sanctuary with suitable fencing and boma facilities, upgrades to other infrastructure as needed, and the required staff compliment, to ready it for rhino introductions	UWA, NRC, RFU	By year three	• Sanctuary established	• Funding needs to be made available for site infrastructure development and suitable staff need to be deployed • A detailed funding plan for the short (rhino introduction process) and long term (ongoing running of the rhino area) need to be in place

D. Monitor and support efforts in the Assisted Reproduction of Northern white rhinos				
i) Invite rhino Assisted Reproduction experts to brief MTWA / UWA on the feasibility and likely road map ahead for re-creation of Northern white rhino.	MTWA / UWA,	By end of second year	• Presentation made to MTWA / UWA	• Willingness by Assisted Reproduction experts & holding institutions to share information
ii) Establish the history and legal agreements or MOUs associated with the two NWR sent to DvurKralova (Czech Republic) in the 70's, and document the nature, location and institutional legal status of all NWR genetic material currently in existence	MTWA / UWA	By end of second year	• Report on legal agreements / MOUs in place	• Willingness by Czech Republic (DvurKralova Zoo) and USA (San Diego Zoo) to provide legal agreements
iii) Monitor the developments in Assisted reproduction of NWR to capture any opportunities that may arise for Uganda.	MTWA / UWA, DvurKralova, San Diego Zoo, IRF, FFI	By end of second year and continuous	• Detailed information report. • Update reports as and when significant new developments occur	• The applied new technologies and innovations will recreate the northern white rhino population

6.5 Capacity

Objective: To strengthen national capacity for effective management of rhinos.

Rationale

- Rhino conservation and management requires a heavy investment in human capital and equipment resources
- Well trained and skilled manpower is required for law enforcement, rhino monitoring, fence maintenance and patrols, data records and management, veterinary interventions, intelligence operations, stakeholder collaboration and awareness programs
- Continuous training and staff capacity development is therefore a continuum to match with the changing technologies and in adherence with the AfRSG training modules
- Adequate equipment and tools are required to be deployed adequately and in commensurate densities to support the human resources in their day to day operations.

KPI

- To strengthen national capacity for effective management of Rhinos

Actions

- National Rhino Coordinator in place within 6 months of plan approval
- Capacity needs assessment plan in place
- Recruitment plan in place and is in tandem with UWA Human Resource Manual
- Rhino in-service training plan developed
- Number of trainings conducted
- Number of Equipment procured/acquired and deployed
- Number of critical Infrastructure acquired

Key Component 6.5: Capacity

Objective: To secure adequate human and equipment resources for effective Implementation of the strategic plan secure adequate human and equipment resources for effective Implementation of the strategic plan

KPIs:

A. To strengthen national capacity for effective management of Rhinos

A. Strengthen national capacity for effective management of rhinos

Activities/Actions	Who is Responsible / Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
i) Appoint a National Rhino Coordinator	UWA	Within 6 months of the first year of the plan	• Coordinator appointed and deployed	• Absence of rhinos under UWA controlled estate presently and unforeseen within the first year of the plan
ii) Conduct capacity needs assessment for all rhino areas	UWA	Within the first year of the plan	• Capacity needs assessment plan in place	• Funding will be available
iii) Develop and implement a recruitment plan as identified by capacity assessment	UWA	On going	• Recruitment and training plan implemented	• Alignment with the UWA recruitment plan
iv) Identify and train TOTs for rhino conservation and management	UWA	By second year	• Number of trained TOTs	• Procurement of trainers, training locations and funding
v) Develop and implement a training plan including the modules and protocols for the different requirements (law enforcement, biological management, monitoring, veterinary and capture services)	UWA	On going	• Training plan in place; number of staff trained; number of modules / protocols developed and operational	• Alignment with UWA training plan
vi) Develop a procurement plan based on the capacity needs assessment	UWA	On going	• Procurement plan in place	• Alignment with UWA procurement plan
vii) Procure/acquire requisite equipment and tools for the different requirements (law enforcement, biological management, monitoring, veterinary and capture services)	UWA	On going	• Number of equipment and tools procured/acquired and deployed	• Funding will be in place
viii) Procure/acquire requisite infrastructure (labs, bomas, ranger accommodation/outposts) for all rhino areas	UWA	On going	• Number of the requisite infrastructure in place	• Funding will be in place

6.6 Coordination and Collaboration

Objective: To effectively coordinate and collaborate with partners and stakeholders in rhino conservation.

Rationale:

- The responsibility of effective implementation of the strategic plan requires focused coordination and championing. A fulltime coordinator, a coordination unit and a steering committee each with clear ToRs are mandated to carry out this responsibility.
- A focal communication point and a center that holds the rhino unit together has been found to be a major strength in range states with successful and well-coordinated rhino programme.
- A coordination framework (see figure 3) creates clear paths for engagement and allows responsibilities to be apportioned appropriately at local and regional levels; to for example the Rhino Executive Committee, Rhino Steering Committee, Area Management Committee, Private Lands Association (e.g. Rhino Fund Uganda), East Africa Rhino Management Group (EARMG).
- Ensure effective coordination and efficient collaboration with development partners and stakeholders to ensure desired impact.
- Effective coordination enhances a structured collaboration, improves confidence in partner relations and regional rhino range states engagement.
- Routine identification and engagement of relevant stakeholders promotes and strengthens the implementation of the rhino conservation programme.
- Collaboration is a critical ingredient to gaining political, management and financial support. Collaboration is encouraged at national level for example with RFU, WWF, Cooperate sector, traditional/cultural leaders/ institutions, communities, government stakeholders, security agencies, judiciary among others and at international levels with for example EA-RMG, CITES, TRAFFIC and LATF, IUCN SSC-AfRSG.
- Collaboration promotes opportunities and incentives for private sector and community involvement in rhino conservation programme. Such opportunities would be important ingredient in increasing the value communities place on wildlife on their lands and adjacent areas.

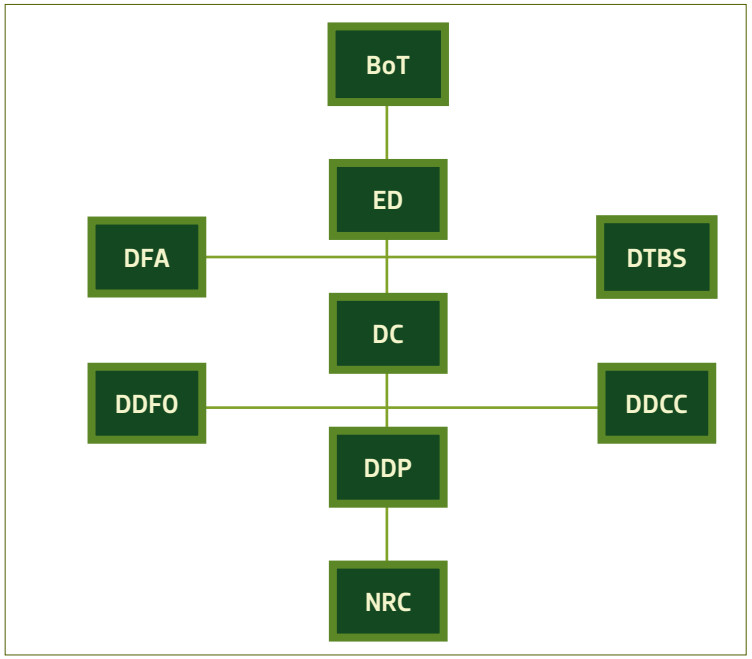
KPIs

- To enhance rhino conservation through effective stakeholder coordination
- To enhance rhino conservation through effective stakeholder collaboration

Actions

- Establish a Rhino Steering Committee
- Establish a Rhino Coordination Unit
- Appoint a Rhino Coordinator

Fig. 3: Rhino coordination frame work



Key component 6.6: Coordination and collaboration

Objective: To effectively coordinate and collaborate with partners and stakeholders in rhino conservation.

KPIs

A. To enhance rhino conservation through effective stakeholder coordination

B. To enhance rhino conservation through effective stakeholder collaboration

A. To enhance rhino conservation through effective stakeholder coordination

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionality
i) Establish a Rhino Steering Committee at MTWA	MTWA	As soon as the Strategy is ratified	• Committee in place with approved ToRs	• Delay in ratifying the plan
ii) Establish a National Rhino Coordination Unit at UWA	UWA/TMM	Within first year of plan	• Functional rhino coordination unit in place	• Lack of/or inadequate funding to run the unit.
iii) Recruit A full time National Rhino Coordinator	UWA TMM/BoT	Within first year of plan	• National Rhino Coordinator in place with approved ToRs	• Institutional buy-in • Lack of/or inadequate funding to hire a Rhino Coordinator
B. To enhance rhino conservation through enhanced stakeholder collaboration				
i) Identify, map and involve stakeholders	UWA/Rhino Coordinator	Within first year of plan	• Number of stakeholders identified and mapped • MoUs and partnership agreements	• Unclear legal framework • Conflicting agendas and interests
ii) Establish local and national stakeholder/partner engagement fora	UWA/UWEC/Area Managers	biannually	• Reports, meeting minutes and proceedings	• Lack of/inadequate funding
iii) Establish regional and international partnerships	CWC, MTWA and DDP-UWA/NRC	Immediate and on-going	• Number of regional and international meetings attended • Proceedings of Rhino Specialist/ Management meetings • Expertise exchange programme • Bilateral agreements	• Lack of designated contacts for bilateral negotiations
iv) Formalize the management of existing rhino populations in Uganda	CWC-MTWA, ED- UWA, ED-RFU and ED-UWEC	Immediate	• Signed and Ratified Cooperation Agreements/MoU's	• Unclear roles and responsibilities of stakeholders
v) Develop guidelines for private sector, community and non-governmental organization involvement in rhino conservation	DDP/NRC- UWA and CWC-MTWA	Immediate	• Approved Guidelines	• Delay in approval of the guidelines

6.7 Communication and Education:

Objective: To promote appreciation, understanding and value of rhino conservation

Rationale:
Following over two decades of absence of rhinos in Uganda and the recent introduction of the southern white sub-species, it is deemed necessary that the country undertakes an aggressive education and awareness program to inform the general public. This effort is aimed at;

- Raising the plight and profile of rhinos in Uganda as species that should contribute to ecological, cultural and economic development of the country.
- Drumming support, appreciation and goodwill for rhino conservation and management to the wider public through mass/robust public awareness and education. This should in turn enlist donor support for rhino conservation.
- Ensure rhino conservation education is incorporated into the overall wildlife conservation component in the National Education Curriculum.

KPIs

- To enhance the understanding and value of rhino conservation through formal education systems and the general public engagement
- To improve stakeholder awareness on socio-economic, cultural and ecological value and costs of rhino conservation

Actions

- Develop rhino information, education and communication (IEC) materials and translate them into local languages targeting different rhino areas.
- Engage the National Curriculum Development Centre to incorporate rhino conservation into the school/education curricular.
- Involve communities, opinion and political leaders in rhino programs such as translocations, censuses and monitoring to promote rhino conservation awareness.
- Develop and implement community projects around rhino areas to promote positive attitude to rhino conservation.
- Develop and implement school and community programs and carryout regular school/community awareness programs regarding rhino conservation.
- Regularly buy space and airtime in print and electronic media and use social media platforms to highlight the plight of rhinos as a continuous mechanism for awareness creation.
- Designate annual rhino day and have several events such as sports, public lectures, quiz competition, exhibitions as a way to communicate and raise awareness on rhino conservation.
- Develop appropriate education and communication materials/learning tools such as brochures, display boards and photographs for the different rhino sites.
- Regularly document and publicize the work of rhino stakeholders.
- Work with research and training institutions and individuals to carryout basic and applied research in rhino conservation and management

Key Component 6.7: Communication and Education

Objective: To promote appreciation, understanding and value of rhino conservation

KPIs:

A. To enhance the understanding and value of rhino conservation through formal education systems and the general public engagement

B. To improve stakeholder awareness on socio-economic, cultural and ecological value and costs of rhino conservation

Activities/Actions	Who is Responsible / Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
A. To enhance the understanding and value of rhino conservation through formal education systems and the general public engagement				
i) Rhino conservation incorporated into the national school/education curricular at all levels.	NRC, Ministry of Education and Sports and National Curriculum Development Center	Second year of the plan	• Rhino conservation concepts in all school curricula • All schools/institutions teaching and examining rhino conservation concepts	• Acceptance and buy-in by MOES & NCDC to incorporate rhino conservation in national curricula • Inadequate capacity of the teaching staff to deliver rhino education programme
ii) Develop and implement school and community programs and carryout regular school/community outreach programs regarding rhino conservation.	NRC, UWEC, RFU	By first year of the plan then continuous	• School/community programs in place. • Number of schools visited and sensitized • Reports	• Willingness of the schools to accommodate the rhino program. • Availability of resources to traverse schools across the country
B. To improve stakeholder awareness on socio-economic, cultural and ecological value and costs of rhino conservation				
i) Develop and implement Rhino communication strategy	NRC/UWEC/RFU	by first year of the plan	• Rhino communication strategy in place • Rhino communication messages done in line with the strategy	• Availability of funds to develop the rhino conservation strategy
ii) Carry out 5-10 year baseline surveys to assess peoples rhino awareness levels and attitudes to rhino conservation	NRC	By first year then mid and end of the plan period	• Baseline and survey reports	• People's willingness to participate in the survey. • Availability of survey tools, logistics and personnel to carry out the exercise.
iii) Develop Information, Education and Communication materials to aid rhino conservation education	NRC/UWEC/RFU	By first year of the plan and continuous	• IEC materials in place and in use	• Availability of funds to develop, print and disseminate IEC materials
iv) Mobilize and sensitize stakeholders on rhino conservation (awareness)	UWA/RFU/UWEC/UWS	Continuous	• Communication messages and materials in place • Meeting reports • Active social media accounts • Number of articles, live radio/TV talk shows	• Inadequate funding • Human resource capacity to traverse the country. • Challenges translating and conducting awareness programs in local languages
v) Formulate enabling guidelines	UWA/MTWA/UWEC	After ratification of Strategy and on-going	• Guidelines and SOPs in place	• Willingness of participating institutions and stakeholders to devote time
vi) Secure endorsement of the strategy by highest political office	MTWA/UWA	As soon as the strategy is approved by the BoT	• Approved strategy in place	• Political and public support/stakeholder consensus
vii) Launch Strategic Plan	UWA/MTWA	Within the first quarter of the first year of plan approval	• Strategy successfully launched • Stakeholders attendance	• Availability of funds to support the launch
viii) Develop a National Rhino Conservation and Education programme	UWEC/UWA/RFU	First year after ratification of Strategy	• Rhino conservation and education programme in place	• Possible delay in approving the rhino education program and inadequate funds to implement the program
ix) Convene annual National Rhino Conservation Forum	UWA/UWEC/MTWA/RFU	Annually	• Number of meetings • Minutes/proceedings	• Availability of funds to support the annual rhino forums. • Stakeholder willingness to participate

6.8 Funding plan

Objective: To secure adequate financial resources for effective implementation of the plan

Rationale:

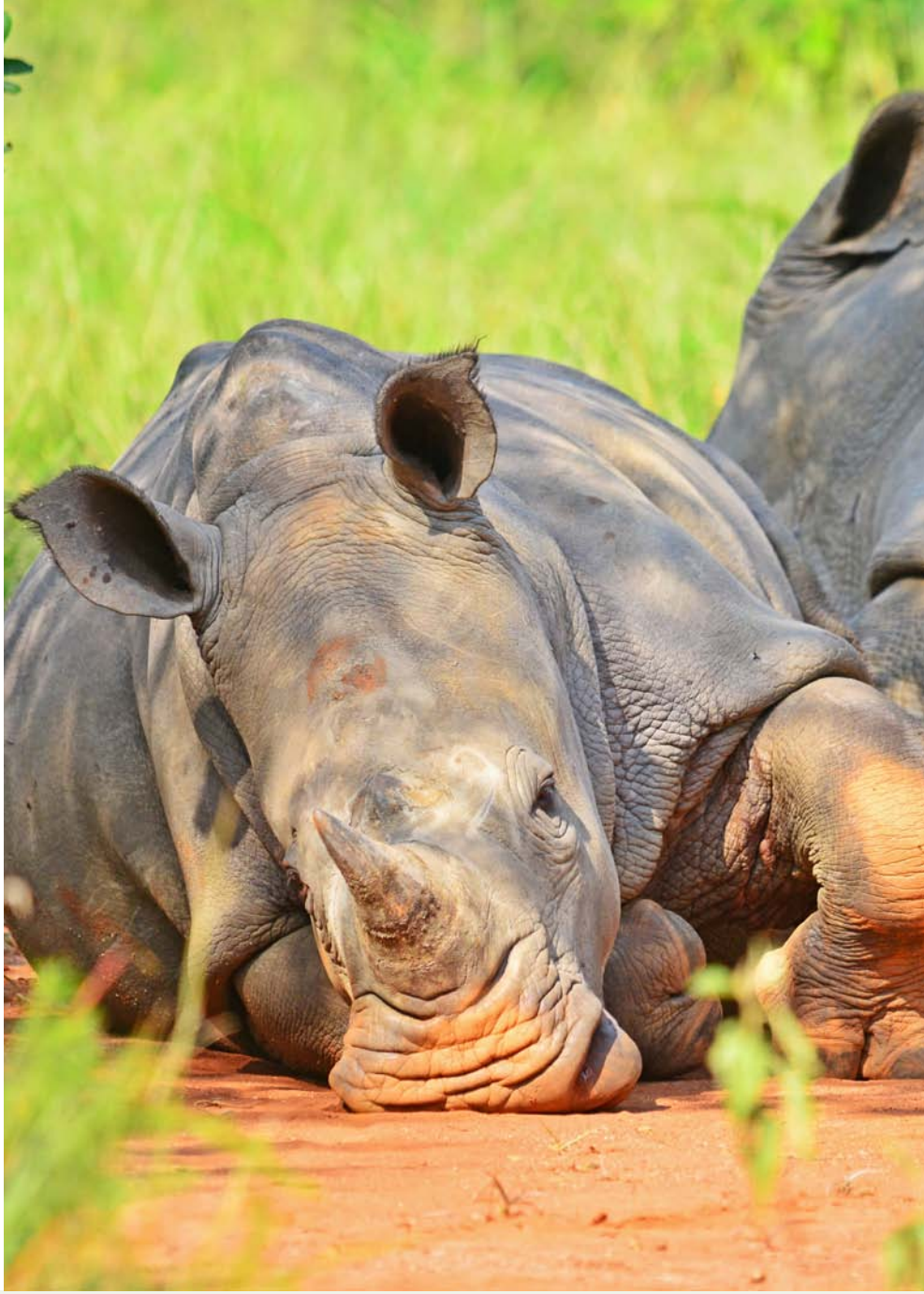
- Rhino conservation is not cheap and without adequate funding it becomes difficult to implement the plan.
- There are significant costs associated with reintroducing and re-establishing rhinos such as boma construction, fencing, roads and other infrastructure, staff training and remuneration, translocations, capture and strategic interventions in addition to significant recurrent costs associated with successful monitoring, protecting and managing rhinos (likely to be around $500,000 per sanctuary per year).
- There is need therefore to identify possible avenues of revenue income from internal sources (government), external partners such as local and international NGOs, private sector or through possible fund raising opportunities with funders.
- There is need for demonstrated financial commitment and capacity to sustain implementation of the strategy for the medium to long-term.

KPI

- Mobilize funding from Government and partners for rhino conservation

Actions

- Designate the President and responsible Minister as Patron and Champion of rhino conservation program respectively to secure the highest political and financial will
- Allocate funds for rhino conservation from UWA, MTWA and donor sources.
- Identify potential funding sources and develop bankable proposals
- Responsible Ministry and agencies allocate within their budgets special funds for rhino conservation
- Establish rhino populations in strategic sites and locations
- Organize at least one annual fundraising event for rhinos
- Seek donations for founder populations
- Partner with private sector to fund transportation of founder population



Key Component 6.8: Funding plan:

Objective: To secure adequate financial resources for effective implementation of the plan

KPI:

A. Mobilize funding from Government and partners for rhino conservation

A. Mobilize funding from Government and partners for rhino conservation

Activities/Actions	Who is Responsible /Champions	By when (if appropriate)	Indicators for Actions (if appropriate)	Comments, Threats, Constraints, Conditionalities
i) Designate the President and responsible Minister as Patron and Champion of rhino conservation program respectively to secure the highest political and financial will	Minister responsible for Wildlife (Hon. Minister, Ministry of Tourism, Wildlife and Antiquities)	Upon approval of the plan	• Patron and Champion in place and working	• Willingness of the President and line Minister to be Patron and Champion of the rhino conservation program
ii) Establish an endowment fund for rhino conservation	MTWA	Within the 1st year	• Endowment fund launched	• Willingness to contribute to the fund
iii) Identify potential funding sources and develop bankable funding proposals. iv) Source external funding from international NGOs and private sectors	MTWA, UWA, UWEC, rhino sanctuaries	Continuous	• Number of funded proposals	• Coordination mechanism for the institutions to attract funding
v) Responsible Ministry and agencies allocate within their budgets special funds for rhino conservation	MTWA, UWA, UWEC	Upon approval of plan	• Funds allocated for rhino conservation	• Availability of funds to support the budget
vi) Establishing rhino populations in strategic sites	NRC, UWA	Upon plan approval	• Rhino areas strategically sited	• Site availability, habitat suitability assessments and Environmental Impact Assessments (EIA) approvals
vii) Organize at least one annual fundraising event for rhinos	NRC, UWEC, RFU	Annually throughout the plan	• Increased funding for rhino conservation	• Willingness by stakeholders and the general public to participate
viii) Seek donations for founder populations	MTWA	On going	• Increased funding for rhino conservation	• Willingness by donor community to donate for rhino conservation
ix) Partner with private sector to fund transportation of founder population and other rhino management programs	MTWA, UWA, RFU	During every planned translocation	• Increased funding from private sector	• Private sector willingness to fund rhino transportation exercise

Strategic implementation plan budget (United States Dollars)											
Program and objectives	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Years 6**	**Years 7**	**Year 8**	**Year 9**	**Year 10**	**Total**
Security, protection and law enforcement. To secure and protect existing and new rhino populations	204,585	38,804	42,684	46,952	51,647	67,379	62,493	6,843	75,617	83,179	**680,183**
Monitoring for rhino management. To effectively monitor rhino populations	9,555	9,555	27,319	9,555	9,555	27,319	9,555	9,555	9,555	9,555	**131,078**
Biological management to meet genetic and demographic goals. To achieve overall 5% growth per annum	205,655	125,865	92,161	240,594	91,177	93,604	96,938	137,013	2,514,447	112,983	**3,710,437**
Reintroduction and reestablishment. To supplement the existing white rhinos and a new viable black rhino population	37,450	193,712	40,820	2,196,970	1,192,817	-	40,071	-	39,696	-	**3,741,536**
Capacity development. To strengthen the national capacity for effective management of the rhinos	45,151	228,485	324,849	16,364	16,364	16,364	16,364	16,364	16,364	16,364	**713,033**
Coordination and collaboration Effectively collaborate with partners and stakeholders in rhino conservation	35,651	29,803	18,860	9,095	17,276	26,264	33,024	16,387	22,429	19,034	**227,823**
Communication and education. To promote appreciation and value of rhino conservation	15,879	16,861	44,124	105,107	23,803	17,653	17,039	16,099	16,381	200,007	**472,953**
Funding plan. To secure financial resources for effective implementation of the rhino conservation strategy	6,364	17,847	28,183	37,484	45,855	53,391	60,172	66,273	71,767	76,710	**464,046**
Total	**560,290**	**660,932**	**619,000**	**2,662,121**	**1,448,494**	**301,974**	**335,656**	**268,534**	**2,766,256**	**517,832**	**10,141,089**

REFERENCES

Ben Okita-Ouma, Rajan Amin and Richard Kock (2007-2011); Conservation and management Strategy for the Black Rhino (D. b. michaeli) and Management Guidelines for the White Rhinos (C. s simum) in Kenya.

Game Department (1923-56) Annual Reports; Game Department, Uganda.

IUCN SSC AfRSG report 2017

Lamprey, R H & Michelmore, F (1996a); A survey of the Wildlife Protected Areas of Uganda. Phase I: September 1995-January 1996 MTWA, Uganda.

Lamprey, R H & Michelmore, F (1996b); A survey of the Wildlife Protected Areas of Uganda. Phase II: April-June 1996. MTWA, Uganda.

Olivier, R (1992a); The Murchison Falls National Park Management Plan. Uganda National Parks.

Olivier, R (1992b); The Kidepo Valley National Park Management Plan. Uganda National Parks.

Rob Brett (1997); Introduction and Re-introduction of Black and White Rhinos to Uganda and Establishment of a Rhino sanctuary. A Feasibility Study Report.

Second National Development Plan, 2015/16-2019/20; Pages 160-161

The Constitution of the Republic of Uganda, 1995; Objectives XIII and XXVII(iv)(a)

Uganda Vision 2040 (2013); pages 39-44

UNP (1965) Uganda National Parks Handbook; Londman Uganda. 1st edition.

UNP (1971) Uganda National Parks Handbook; Longman Uganda. 2nd edition.

Wildlife Act Cap 200 of 2000; Articles2(1)(a) and 2(1)(d)

Wildlife Policy, 2014; Objective 2Appendices

APPENDICES

Appendix 1 Terms of References for Rhino Management Committees

A. Rhino Executive Committee (REC)

- Provide oversight roles and guidance to the Rhino Steering Committee.
- Appoint members of the Rhino Steering Committee.
- Report to the UWA Board of Trustees through Top Management.
- Act on reports received from the Rhino Steering Committee.

B. Rhino Steering Committee (RSC)

- Oversee, coordinate and ensure effective implementation of the Strategic Plan.
- Make firm decisions to ensure timely implementation of the Strategic Plan.
- Monitor and Evaluate the implementation of the Strategic Plan
- Review and update the Strategic Plan as required
- Regularly report to the Rhino Executive Committee.
- Regularly update all rhino stakeholders on Strategic Plan implementation progress
- Convene annual meetings with all the rhino stakeholders once a year

C. Area Rhino Management Committee (ARMC)

- Oversee the implementation of the National Rhino Conservation and Management Strategy at all rhino management sites in the country.
- Periodically report to the Rhino Steering Committee on the implementation rhino activities at the area level as per the strategy.
- Take appropriate decisions at the rhino area management level to ensure timely implementation of planned activities.
- Ensure synergy in the implementation of the plan at area management level for efficient and effective utilisation of available resources

D. Association of Rhino Sanctuaries

- Conserve and manage rhinos on sanctuaries, zoos and private lands under the guidance of MTWA and UWA.
- Represent the Private sector involved in rhino conservation and management.
- Provided secure land and offer security to rhinos held on private land
- In consultation with MTWA and UWA, raise funds for rhino conservation and management on private lands
- Build capacity for Rhino monitoring and security teams
- Offer advice on issues relating to Rhino conservation and management to members of Association.
- Share logistical support amongst members.
- Report to rhino management issues on private lands to the Rhino steering committee.

Appendix 2 Terms of References of the National Rhino Coordinator

- Coordinate the rhino conservation unit and committees.
- Liaison with the relevant offices and departments at UWA and MTWA.
- Liaison with the Private Sector, Custodians/Owners, Local donors/ Support groups.
- Oversee revision and implementation of National Rhino Strategy.
- Oversee production and implementation of periodic Action Plans.
- Convene and provide secretariat for meetings of Management Committees (e.g. Advisory, Management, Technical, Custodians, Agenda, Notifications, Minutes, and Follow-up).
- Draw up periodic action plans for interventions, captures and translocations, surveys and monitoring programmes, training courses, research projects, including habitat studies.
- Compile and circulate reports on population status and performance; survey and monitoring programmes; site selection and inspections; rhino horns stockpile data; training and performance of staff.
- Maintain and oversee the management of the rhino population databases and information systems.
- Monitor expenditure on rhino conservation projects, expenditure against budgets and reporting to donors.
- Liaison and information-sharing with African Rhino Specialists and other national rhino coordination units if available.
- Secure funding for rhino management by identifying funding needs, drafting and presenting funding proposals, obtaining official endorsement of priority projects and proposals.
- Advise UWA on international matters through coordination committees.
- Represent the Country on regional and continental bodies such as the IUCN/SSC AfRSG, SADC RRG/RMG, RESG.

Appendix 3 Workshop participants held in August 2015

NO.	NAME	ORGANISATION	E-MAIL ADDRESS
1	David Duli	WWF	dduli@wwfuganda.org
2	Thomas Otim	WWF	totim@wwfuganda.org, T0tim@wwfuganda.org
3	Kembabazi Zephrine	AWF	zkambabazi@wwfuganda.org
4	Joseph Okori	WWF	jokori@wwf.org.za
5	Keryn Adcock	IUCN SSC AfRSG	keryna@telkomsa.net, keryna@telkomsa.net
6	Richard Emslie	IUCN SSC AfRSG	emslieafrsg@telkomsa.net
7	Benson Okita-Ouma	AfRSG & Save The Elephants	okita@savetheelephants.org
8	Linus Kariuki	KWS	ikariuki@kws.go.ke, lkariuki@kws.go.ke, rhino@kws.go.ke
9	Owoyesigire George	MTWA	gowoyesigire@yahoo.com
10	Francis Ogwal	NEMA	fogwal@nemaug.org, sabinofrancis@gmail.com
11	Patrick Mugoya	MTWA	ps@mwe.go.ug, pmugoya@tourism.go.ug
12	James Lutalo	MTWA	jlutalo@tourism.go.ug, lutaloj57@gmail.com
13	Candia Leone	MTWA	lcandia@tourism.go.ug
14	Maria Mutagamba	MTWA	
15	Andrew Seguya	ED – UWA	andrew.seguya@ugandawildlife.org
16	Okiror Stephen	MTWA	sokiror@tourism.go.ug
17	Baluku Joward	MTWA	jbaluku@tourism.go.ug
18	Kalulu Ivan	MTWA	ivankaluluiii@gmail.com
19	James Musinguzi	UWEC	jmusinguzi@uwec.ug
20	Edward Asalu	UWA	edwardomule@yahoo.com
21	Patrick Atimnedi	UWA	atimpat36@gmail.com
22	Charles Tumwesigye	UWA	charles.tumwesigye@ugandawildlife.org
23	Tom Okello Obong	UWA	tomokello@yahoo.co.uk
24	Johnson Masereka	UWA	johnsonmasereka@yahoo.com
25	Angie Genade	RFU	angie@rhinofund.org
26	Bill Pelser	RFU	pelserbill@gmail.com
27	Abraham Sagal	INTERPOL	sagalabraham@gmail.com
28	Felix Patton	Conservation Advisor, RFU	felix@africaonline.co.ke, rfurhinos@gmail.com
29	Rob Brett	FFI	rob.brett@fauna-flora.org
30	Sam Mwandha	AWF	mwandha.sam@gmail.com
31	Antioine Mudakikwa	Head Vet Unit And Research & Monitoring – RDB, Rwanda	antoine.mudakikwa@rdb.rw
32	Achiles Byarunhanga	Nature Uganda	nature@natureuganda.org
33	John B. Nizeyi	COVAB/MGVP	jnizeyi@covab.mak.ac.ug
34	Guma Nelson	UWA	ngumako@gmail.com
35	Christine Nyadoi	UWS	msnyadoi@yahoo.com
36	Lilly Ajarova	CSWCT	director@cswct.org, director@ngambaisland.org, lilly.ajarova@gmail.com
37	Alice Natukunda	UWA	alice.natukunda@ugandawildlife.org
38	Nightingale Mirembe	UWA	nightingale.mirembe@ugandawildlife.org
39	Chemonges Sabilla	UWA	sabilla.chemonges@ugandawildlife.org
40	Edgar Buhanga	UWA	edgar.buhanga@ugandawildlife.org
41	Sarah Nambooze	WWF	snambooze@wwfuganda.org

GLOSSARY

Alien species: One that is not indigenous to a given area or place/country and has been introduced accidentally or deliberately to its new location, mainly by human activity.

Biodiversity (Biological diversity): The variability among living organisms from all sources including ecosystems and the ecological complexes of which they are a part. It encompasses the three levels; ecosystem, species and genetic diversity.

Biological Management: In the context of this strategy refers to the pro-active management of rhino populations (through adjusting rhino stocking densities, managing densities of other browsers and habitat management) to maintain rapid, healthy population growth, minimize inbreeding and loss of genetic diversity.

Browsers: Species that feed on stems, twigs, buds, seed pods and leaves of trees or bushes and herbaceous plants and succulents.

Critically Endangered: According to IUCN Red List categorization of threat, a taxon is critically endangered when it is facing an extremely high risk of extinction in the wild in the immediate future.

Demography: Study of population characteristics including age/sex structure, density, growth rates, fertility, mortality, distribution and migration.

Ecological Carrying Capacity: The maximum number of a specie (rhino) that can be supported sustainably by the resources of a specific area.

Ecosystem: A complete community of living organisms and the nonliving materials of their surroundings. Its components include plants, animals, and microorganisms, rocks and minerals and surrounding water sources and the local atmosphere.

Ex – situ: In captivity or out of natural range of a species.

Founders: Rhinos used to establish a new population. Effective founder number is the number of founders capable of breeding or have bred ie those that contribute to or are likely to contribute to the populations original gene pool and are known not to be related.

Free ranging: Rhinos inhabiting non-enclosed or non-confined areas ie outside fenced areas.

Growth rate: The natural increase in population size as a net result of additions from breeding and losses from natural mortalities, expressed as a percentage of the population size at the start of the year.

Important population: An IUCN SSC AfRSG rating to indicate a rhino population whose survival is considered extremely valuable in terms of survival of the species/sub-species. There are four sub-categories;

Important 1 – Population increasing & stable with N=20-50

Important 2 – population trend unknown or decreasing N=<25% (3-5 years) and N=51-100

Important 3 – population decreasing but N=20-50 in breeding contact in a protected area/with security

Important 4 – population with 20+ dispersed outside a protected area that can take 20 founders.

Indigenous: Originating and living or occurring naturally in an area or environment

Intensive Protection Zone (IPZ): A defined zone within state protected area, private or communal land where law enforcement is deployed at moderate to high density specifically to protect rhino.

Key population: An IUCN rating to indicate a rhino population whose survival is considered critical for the survival of the species and sub-species. There are three ratings;

Key 1 – population increasing or stable, N>50% of subspecies

Key 2 – population increasing or stable, N=26-50% of subspecies

Key3 – population decreasing <25% and N>50 or N>100 even if population decrease is more than 25% (3-5 years)

Lost rhino: A lost rhino is a lost rhino, whether it was poached, or died as a result of lack of careful biological management. Lost rhino include those calves that potentially could have been born with proper biological management.

Maximum Productivity Carrying Capacity: The desirable stocking rate at which maximum population growth rates can be attained, for rhino usually estimated as 75% of ECC.

Metapopulation: A number of sub populations of a species managed collectively as one single population with occasional movement of animals from one sub population to another.

Notching: A mechanism of identifying or monitoring by clipping a small section or sections (usually in "V" shape) from a rhino's ear.

Range state: A Country or State in which rhinos currently occur or historically occurred.

Rhino Conservation Area: Loosely for the purpose of this strategy refers to areas with rhinos in their natural habitats.

Sanctuary: A small part of State protected area, private or communal land in which rhinos are deliberately confined through perimeter fencing, use of natural barriers, or other confinement methods where law enforcement staff are deployed at high density to protect the rhino population.

Species: A taxonomic group whose members can interbreed and produce viable fertile offsprings; also based on genetic and morphological differences between species.

Sub-species: In case of a rhino, is a sub division that differs genetically and phenotypically as well as spatially; and which are likely to have specific ecological adaptations to the areas and different habitats in which they are found.

Taxon (Taxa – plural): A classification using taxonomic grouping of similar animals ranging from broad phyla to species level or below.

Translocation: A deliberate movement of rhinos from one area to another, either to enhance chances of survival, establish new populations, keep established populations productive or introduce new blood into a population. The objective may also include moving rhinos to areas of suitable habitats or where they can be protected from poachers.

UGANDA WILDLIFE AUTHORITY
7 Kira Road Kamwokya,
P.O.Box 3530, Kampala Uganda
Tel: +256 414 355 000
Fax: +256 414 546 291
Email: info@ugandawildlife.org