



WWF

ZAMBIA

BROCHURE

2011



African wild dog

## Species and Protected Areas

### SPECIES



Species together with humans make up life on this planet. Altogether, this diversity, range, variety and breadth of life is what is referred as 'biodiversity'.

#### What is a Species

A species is one of the basic units of biological classification. It can be loosely defined as a group of individual organisms that have very similar appearance, anatomy, physiology and genetic composition. Species include mammals, plants, corals, fungi, insects, birds, fish or a sponge (or any one of a gazillion other forms that life takes). They can be found in water, wetlands, underground rivers, soil, forests, perilous cliffs, or living almost all their life in mid-air. These species together with humans make up life on this planet. Altogether, this diversity, range, variety and breadth of life is what is referred to as 'biodiversity'.

According to the International Union for the Conservation of Nature (IUCN), humans know over 1.5 million different forms of life on this planet. Many experts feel more species are yet to be discovered. Biologists estimate that there are between 5 and 15 million

species of plants, animals and micro-organisms existing on Earth today. Of the 1.5 million species known by humans, the IUCN maintains the Red List of over 16 thousand species which are endangered. Endangered species are those considered to be facing a high risk of extinction in the wild. Already too many species have been lost on this planet and have become extinct. Conservation efforts are needed for threatened species whose survival cannot be guaranteed by conserving their habitat alone. Species are considered endemic if they are only found in certain places, localities or areas on the globe.

Zambia has a total 8,017 species of organisms of which at least 615 are endemic to the country with 174 classified as rare while 31 are endangered or vulnerable. About 14 species in Zambia are listed in the IUCN Red List as globally threatened, endangered or vulnerable. These

include species such as Black rhino (endangered), African elephant (endangered), Ansell's shrew (endangered), African wild dog (endangered), Black lechwe (vulnerable), The Shoebill (vulnerable), Hippopotamus (vulnerable) and the Zambezi teak (threatened).

## Threatened Species in Zambia



### Black rhino

The Black rhino population in Zambia was completely wiped out between 1970 and 1980s and became extinct. This was as a result of increased poaching levels because rhino horn was valued for Chinese medicines and other uses like jewelry and knife handles. Until recently, as a result of conservation efforts, their numbers are slowly rising following reintroduction efforts in the Mosi-O-Tunya Game Park near Victoria Falls and North Luangwa National Park.

### Ansell's shrew

Ansell's shrew is a mouse-like creature endemic to Zambia. It is found in evergreen forests along rivers. A major threat to Ansell's shrew is habitat loss mainly due to forest land conversion to agriculture.

### African Wild dog

The African wild dog is not only one of the endangered species in Zambia but also in Africa. The main reason is because of their feeding habits as they move from one place to another in search for food. This means it is hard for them to be confined in protected areas such as parks. Usually when they leave the parks to find food on local farms, they are

killed by farmers to protect their livestock.

### African elephant

The African elephant, though currently listed as near threatened, is also listed as an endangered species. Elephants are still hunted for their tasks and their populations have been dwindling because of poaching. Zambia is at the centre of an important elephant habitat facilitating migratory corridors among five countries which include Angola, Botswana, Namibia, and Zimbabwe. The establishment of the Kavango Zambezi (KAZA) Transfrontier Conservation Area (TFCA) which is the world's largest transboundary conservation area covering 278,132 square kilometers (The size of Italy) in five countries of the SADC region is one of the initiatives aimed at protecting the elephant population not only in Zambia but in the region. In Zambia, KAZA spans across the Kafue National Park, Sioma Ngwezi National Park, and Mosi-oo-Tunya National Park.

### Birds

Threatened birds in Zambia include the Wattled crane, Skimmer, the Shoebill and the Southern ground hornbill. The Shoebill is endemic to the Bangweulu Swamps. The Southern ground hornbill, sometimes called the Turkey buzzard mainly due to its size and

ground living habits is a social bird usually found in small groups of up to eight birds. The major threat to the Southern ground hornbill is the loss of suitable nesting habitat due to deforestation caused by charcoal burning and land clearing for agriculture.

### The Zambezi teak (*Baikiaea plurijuga*)

The Zambezi Teak is one of the tree species in Zambia that is overexploited or footprint- impacted as a result of illegal timber harvesting and trade. It is classified as threatened on the IUCN Red List.

About 14 species in Zambia are listed on the IUCN Red List as globally threatened, endangered or vulnerable.



The Southern Ground Hornbill

WWF is focusing efforts on a select group of species that are especially



Zambezi Teak

## Priority and endangered species

important for their ecosystem services or products. Species important for providing ecosystem services form a key element in the food chain and help the stability or regeneration of habitats. Species important for their products are critical to the health and livelihoods of local communities. These are usually exploited commercially and are important cultural icons.

For purposes of conservation efforts, WWF divides species into two groups which include flagship and footprint-impacted species.

*Flagship* species are iconic species that provide an impetus for raising public awareness and stimulating action as well as funding for broader

conservation efforts.

*Footprint-impacted* species are species whose populations are primarily threatened because of unsustainable utilization practices.

The plight of polar bears, pandas, and other large iconic mammals is generally well known, at least in industrialized countries.

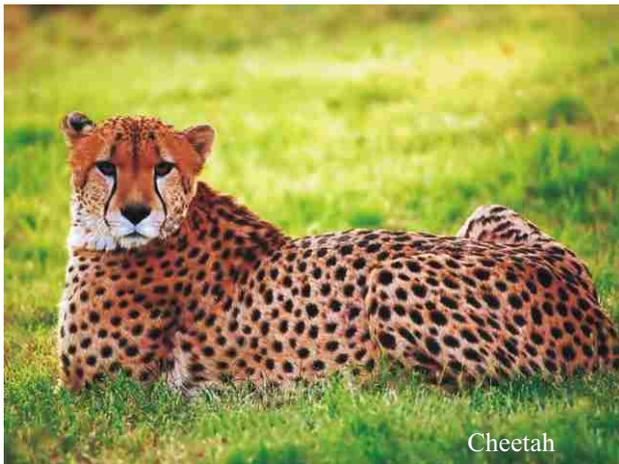
But most people don't stop to consider whether the fish they eat, the house plants they buy, or the herbal tea they drink comes from a threatened species, or whether taking it from the wild harmed its habitat or other species.

Most people also don't realize that *hundreds of millions* of plants and animals are harvested from the wild each year, from thousands of species.

Flagship species in Africa include African Elephants, Rhinos, Chimpanzee, African apes, African Wilddog, while footprint-impacted species include the African teak and the Cichlids in East Africa.

The WWF Global Programme Framework (GPF) flagship and footprint impacted species in Zambia include the African elephant, Black rhino, African wild dog and the Zambezi teak.

## Why are species disappearing?



Cheetah

### Human activities

While natural extinction could be defined as loss of species if humans were not there, a number of species are being lost much faster today than ever before as a result of human activities. Such activities include, among others, forestland conversion to agriculture, unsustainable use of natural resources and pollution. The land we use for living space, food and fuelwood production; the things we buy; the waste we produce; and human-wildlife conflicts contribute to the main causes of species loss. Other threats to animal species as a result of human activities include wild fires, illegal wildlife trade in

elephant tasks, rhino tasks, bush meat and animal skins.

### Pollution

Pollution, as a result of greenhouse gas emissions from industries, has greatly contributed to climate change which is a threat to species and biodiversity. In

addition, effluent discharge by industries into freshwater bodies such as rivers, wetlands, lakes and streams has resulted in loss of various species.

### Human wildlife conflict

As human populations increase and natural habitats shrink, people and animals are increasingly coming into conflict over living space. Conflict between people and animals is one of the main threats to the continued survival of many animal species in different parts of the world and is also a significant threat to local human populations. If solutions to conflicts are not adequate local

support for conservation also declines. People lose their crops, livestock, property, and sometimes their lives when they come into contact with animals. The animals, many of which are already threatened or endangered, are often killed in retaliation or to 'prevent' future conflicts. Human-wildlife conflicts are occurring more and more, affecting many different species. The effects of climate change will probably exacerbate the problem.

Unsustainable human activities such as poaching, illegal wildlife trade, illegal logging, charcoal burning and overfishing are some of the factors contributing to species loss in Zambia. Poaching and illegal wildlife trade in bush meat leads to loss of animal species which are endemic to Zambia. Illegal trade in elephant tasks, rhino horns threaten the population of these endangered species. Overfishing and unsustainable fishing methods such as use of mosquito nets are other human activities threatening a number of fish species in fresh water bodies. In addition, land conversion to human settlements and agricultural use results in natural habitat loss for numerous species.



## PROTECTED AREAS

A Protected Area is defined by IUCN as 'a clearly defined geographical space, recognized, dedicated and managed through legal or other effective means, to achieve the long term conservation of nature with associated ecosystem services and cultural values.'

### Why Protected Areas?

Protected areas provide a number of benefits including ecological, educational, scientific, cultural and spiritual, and economic.

### Ecological benefits

Protected areas help preserve genetic, species and ecosystem diversity and maintain critical ecological processes such as recycling of air, water and nutrients. They also maintain critical habitats for a variety of organisms and help preserve a full range of ecological options for future generations. In addition, protected areas are important for carbon sequestration and ecosystem-based adaptation to climate change.

Well-managed protected areas can be a basis for accessing Reducing Emissions from Deforestation and Degradation (REDD) funding.

### Educational Benefits

Protected areas serve as “outdoor classrooms” where people have the opportunity to learn from first hand experience with natural resources. This in turn serves to build public support for habitat protection, waste reduction and pollution abatement outside of protected areas.

### Scientific Benefits

Scientific benefits of protected areas are numerous but perhaps the most significant is the idea of protected areas as benchmarks that allow for comparisons

between natural ecosystems with those tempered by humans. In essence, protected areas provide natural laboratories in which to gather and assess information on how ecosystems function and how they respond to change.

### Cultural and Spiritual Benefits

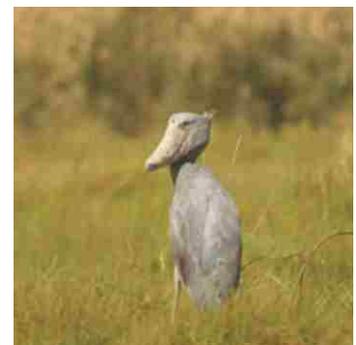
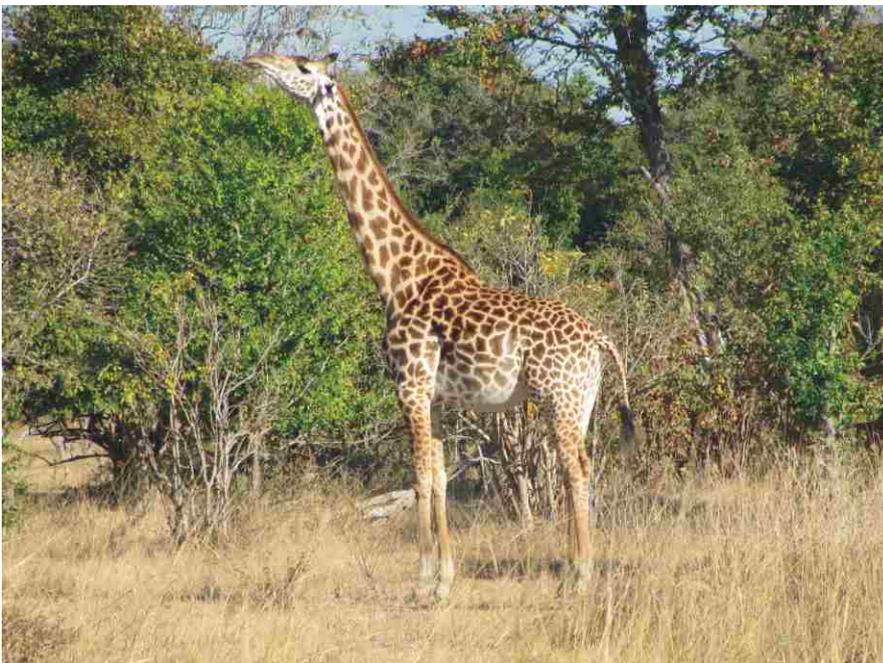
Protected areas help in efforts to preserve cultural artifacts (heritage) such as archaeological, early settlement and local sacred sites such as burial grounds. They help ensure the survival of species that symbolize a nation, e.g., fish eagle in Zambia, beaver and moose in Canada, elk in Finland, and kangaroo in Australia. Research has shown that sacred natural sites (SNS) have richer biodiversity than surrounding habitats.

## WWF ZAMBIA'S INTERVENTIONS IN SPECIES AND PROTECTED AREAS



## Zambia's Protected Areas Network

Zambia's biodiversity is managed mainly within a network of three types of protected areas. The first consists of 19 national parks, 39 Game Management Area (GMAs) and 8 Ramsar sites which are administered by the Zambia Wildlife Authority (ZAWA). The second type consists of national heritage sites that are managed by the National



The Shoebill: Bangweulu wetlands

Heritage Conservation Commission (NHCC) while the third type comprises the forest reserves which are over 450 and managed by the Forestry Department under the Ministry of Local Government, Housing, Early Child Education and Environmental Protection. There are also a significant number of game ranches scattered across the country managed by private land owners.

## WWF Zambia's Focal Landscapes

WWF Zambia Country Office is a leading international conservation organization in Zambia established since 1962. Since inception, WWF Zambia has been working with various stakeholders in Zambia in the conservation of wildlife, endangered and threatened species. WWF Zambia Country Office collaborates with government through the line ministries dealing with natural resources including forestry, wildlife, fisheries, water, land, minerals and energy to ensure sustainable natural resources management, biodiversity conservation and improved human livelihoods. In line with WWF Global Framework Programme (GFP) priorities, WWF Zambia has prioritized its conservation strategy by focusing on four landscapes which include Okavango-Zambezi (KAZA), Upper Zambezi, Luangwa and Bangweulu.

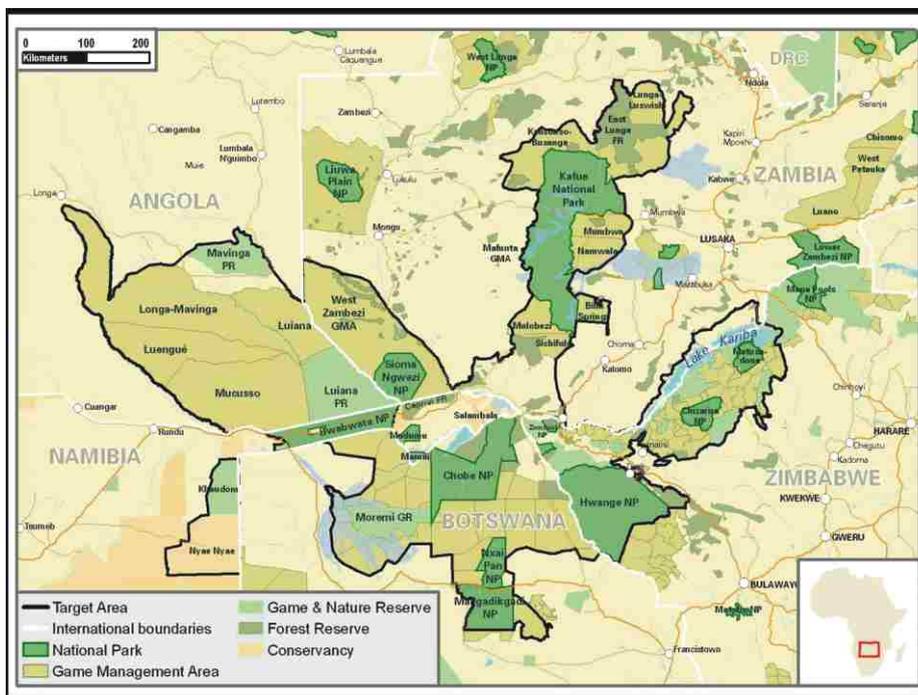


## Kavango - Zambezi Transfrontier Conservation Area (KAZA)

**KAZA is the world's largest conservation area joining Angola, Botswana, Namibia, Zambia and Zimbabwe covering about 278, 132 square kilometers (The size of Italy).**

The Kavango Zambezi Transfrontier Conservation Area (KAZA) was formally established following a treaty signed in Luanda by the governments of Angola, Botswana, Namibia, Zambia and Zimbabwe on the 18<sup>th</sup> August 2011. KAZA is the world's largest transboundary conservation area covering about 278, 132 square kilometers (the size of Italy). KAZA links some of the iconic national parks such as Botswana's Chobe National Park and Zambia's Kafue National Park. It also links game and forest reserves, conservancies and wildlife management areas. About 45% of KAZA area is in Zambia extending across the Kafue National Park, Sioma Ngwezi National Park, Mosi-oa-Tunya, National Park, and West Zambezi Game Management Area. The area links parts of the historical elephant migration routes most of which are in the Chobe area. KAZA is one of WWF Zambia's four focal landscapes critical for wildlife habitat and species conservation. It is home to some of the GFP priority species such as the African elephant, the African teak and an integral

### Map of KAZA



part of the Miombo ecoregion. WWF Zambia interventions in the KAZA include the Community Centred Conservation Development Project (CCCDP) in the Siolwana Complex and the Mufunta Game Management Area (GMA) Participatory Natural Resource Management near the Kafue National Park. The CCCDP is a transboundary initiative spearheaded by WWF Zambia in conjunction with WWF Namibia.

WWF Zambia has been working with ZAWA and the communities in Mufunta Game Management Area (GMA) in Kaoma since 2006 to curb wildlife poaching. The GMA is adjacent to the Kafue National Park and covers a total area of 6,500 km<sup>2</sup>. Through the Community Resource Board (CRB), WWF has been supporting 20 village scouts to curb poaching activities in the area.

## Community Centred Conservation and Development Project (CCCDP)

WWF through the Community Centred Conservation and Development Project (CCCDP) in Lower West Zambezi Game Management Area and Sioma Ngwezi National Park in Sesheke has been instrumental in curbing poaching activities and resolving human animal conflicts in the area by teaching communities about sustainable management of natural resources. The elephant human conflict is one of the main animal human conflicts that has threatened the elephant population in the area.

## Mufunta Game Management Area (GMA) Participatory Natural Resource Management



WWF supporting 20 Village scouts in Mufunta GMA

The Mufunta GMA is in the Miombo forestry area adjacent to the Kafue National Park west of Lusaka, Zambia's capital city, is outside of the KAZA Transfrontier Conservation Areas (TFCA). The livelihoods of the people in the area is largely dependent on natural resource products and services such as grass, timber, honey, fish, traditional crafts etc. The main agricultural activities in the area include cassava, maize, tobacco and cotton growing. The Mufunta Game Management Area (GMA) Participatory Natural Resource Management Project under WWF Zambia focuses on development of local structures, land use plans, alternative livelihoods and environmental education. The long term goal is to contribute to biodiversity conservation through sustainable natural resource management and the improvement of livelihoods of the local people in the area.

## Zambia Wetlands Programme

WWF Zambia Wetlands Programme's main goal is to ensure wetlands under the Ramsar sites and those outside protected areas have management plans in order to protect habitats and various species that are endemic to the wetlands. The long term objective of the programme is to protect Zambia's wetlands which are home to various endemic species that are threatened such as the Kafue Lechwe (Kafue Flats), the Black Lechwe, the big cat and the Shoebill of Bangweulu (Bangweulu Wetlands) as well as various fish species. The final goal of the programme is to promote good governance and sustainable financing mechanisms for effective management of wetlands in WWF's four focal landscapes across the country (Upper Zambezi, KAZA, Luangwa and Bangweulu).



## Miombo Ecoregion Programme



The Miombo Ecoregion Programme is a trans-boundary conservation initiative aimed at conserving Miombo Woodlands and curb the threat of deforestation in Zambia and Zimbabwe. With support from WWF Sweden, the Miombo Eco-region Project in Mpika is being spearheaded by WWF Zambia in the Bangweulu basin of north eastern Zambia. WWF Zambia is coordinating project activities in the Chiunda Ponde rural communities situated over 130 kilometers from Mpika town aimed at discouraging charcoal burning, shifting cultivation (key drivers of Miombo deforestation) and poaching of the Black Lechwe in the Bangweulu plains. Apart from galvanising community support on sustainable use of natural resources such as forests and wildlife, the programme also aims to improve livelihoods of the people in the area by coming up with alternative income generating activities such as bee keeping, fish farming and promotion of conservation agriculture.

## Environmental Flows

Environmental flows are critical to safeguarding habitats and species integrity. Disturbances on the natural river flow compromises the integrity of habitats and species. One way of compromising environmental flows is dam construction which could threaten species and biodiversity dependent on the natural river flows. WWF, through the Joint Zambezi River Basin Environmental Flows (E-Flows) Programme, supported by WWF Netherlands, covers Mozambique, Zambia and Zimbabwe and aims to ensure that environmental flows are applied to the entire Zambezi River Basin to sustain freshwater and estuarine ecosystems that depend on the natural flow of the rivers. The programme operates through a variety of stakeholders including dam operators, power utility companies, line ministries and departments responsible for water and energy, and universities.



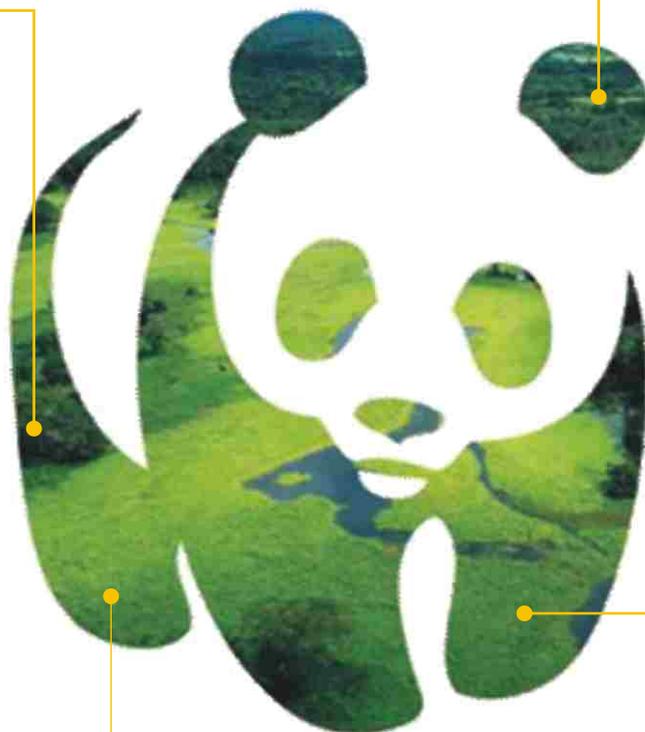
# WWF ZAMBIA IN NUMBERS

1990

WWF establishes programme office in Zambia to manage conservation projects

1962

WWF was established in Zambia



+100

WWF is the world's largest independent conservation organization with a global network in over 100 countries.

6

WWF Zambia has 6 Programmes across the Country

#### For more information

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To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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