



REPUBLIC OF ZAMBIA

MINISTRY OF TOURISM AND ARTS

# National Conservation Action Plan for Cheetah and African Wild Dog for Zambia

2019 to 2023



With support from:



## CITATION

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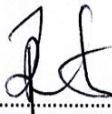
## **ACKNOWLEDGEMENTS**


The Department of National Parks and Wildlife (DNPW) wishes to thank the Range Wide Conservation Program for Cheetah and Wild dog (RWCP) and the Zoological Society of London (ZSL) for providing the funds and technical support to facilitate the review and production of this Conservation Action Plan for Cheetah and African Wild Dog. The Department also wishes to thank the Zambian Carnivore Programme (ZCP), who graciously agreed to manage the financial resources from ZSL on our behalf and the World-Wild Fund for Nature(WWF) Zambia for participating and supporting the printing of this document. Lastly, we are graciously thankful to all our conservation partners not specifically mentioned but who contributed to the development of this document in one way or the other.

Paul Zyambo  
Director-National Parks and Wildlife

## APPROVAL PAGE

The Government of the Republic of Zambia through the Minister of Tourism and Arts and the Department of National Parks and Wildlife hereby approve the 'National Conservation Action Plan for Cheetah and African Wild Dog in Zambia' 2019 to 2023'.

SIGNATURE:  DATE: 28/11/18  
PAUL ZYAMBO  
DIRECTOR-NATIONAL PARKS AND  
WILDLIFE

SIGNATURE:  DATE: 04/01/19  
HON. CHARLES R. BANDA, MP  
MINISTER OF TOURISM AND ARTS

# CONTENTS

<b>Background and Introduction .....</b>	<b>7</b>
<b>The National Conservation Action Plan for Cheetah &amp; African Wild Dogs in Zambia .....</b>	<b>8</b>
The workshop.....	8
<b>Revised range maps for cheetah and wild dog in Zambia .....</b>	<b>9</b>
Categories of current geographic range .....	9
Changes to the range maps since 2009 .....	11
Areas of Range Types in Zambia, 2018 .....	13
<b>The 2018 National Conservation Action Plan for Cheetah and Wild Dogs in Zambia .....</b>	<b>14</b>
Vision and Goal .....	14
Objectives.....	15
Targets and Activities.....	15

### List of acronyms used in log frame:

CBD	Convention on Biological Diversity
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLZ	Conservation Lower Zambezi
CMS	Convention on the Conservation of Migratory Species of Wild Animals
CRB	Community Resource Boards
CSL	Conservation South Luangwa
DNPW	Department of National Parks and Wildlife
FZS	Frankfurt Zoological Society
GRI	Game Rangers International
IUCN	International Union for Conservation of Nature
NGO	Non-Governmental Organisation
RWCP	Range Wide Conservation Program for Cheetah and African Wild Dogs
SADC	Southern African Development Community
TFCA	Trans-Frontier Conservation Area
WCP	Wildlife Crime Prevention
WENSA	Wildlife Enforcement Network for Southern Africa
WWF	World Wildlife Fund (in Zambia)
ZCP	Zambian Carnivore Programme

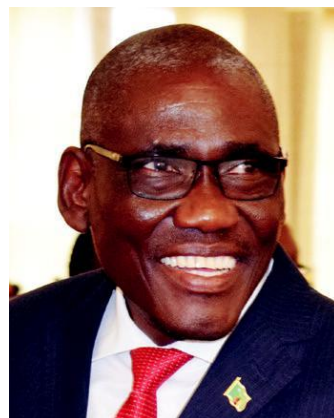
## ***Foreword by the Honourable Minister of Tourism and Arts***

Cheetah and the African Wild Dog are two species that were originally common and widespread across Zambia. Sadly, over the years, the range for these species has been contracting although wild dog has a wider distribution than cheetah, which has mostly remained in the western Zambia. In addition, the two species have faced threats of disease, snaring and poaching. The contraction of the range and threats faced by the two species has raised concern on the part of the Government of the Republic of Zambia who recognises the important role the two species play in the ecological and tourism development of our protected areas. Cheetah and Wild dog are two charismatic species that are part of the top five large carnivores together with Hyena, Leopard and Lion that help to draw tourists to this country thus have an important place in the promotion of tourism in Zambia. In addition, My Ministry recognises that Cheetah and Wild dog have common behaviour and face the same threats hence the development of this joint National Conservation Action Plan for the two species.

The National Conservation Action Plan Cheetah and Wild dog is in line with the Seventh National Development Plan as it supports tourism development through restocking of identified national parks. This plan will be implemented under five themes namely; capacity development, knowledge and information, information transfer, coexistence, land use, political commitment, policy and legislation, and national planning. It will provide overall policy guidance in a number of strategies that will be used to achieve the objectives under the five themes.

As Minister responsible for wildlife conservation and tourism development, I take pride in the efforts being made to conserve Zambia's Cheetah and Wild dog populations as set out in the 2019-2023 National Conservation Action Plan. I wish to thank all the local and international partners who worked with the Department of National Parks and Wildlife in the development of this auspicious plan. It is my sincere privilege and honour to launch this National Conservation Action Plan which is an overarching document to guide policy implementation, guide conservation efforts and ensure fulfilment of the long-term vision for the two species.

Hon. Dr. Charles R. Banda. MP, MCC.  
**MINISTER OF TOURISM AND ARTS**



## ***Background and Introduction***

The cheetah (*Acinonyx jubatus*) and the African wild dog (*Lycaon pictus*, hereafter 'wild dogs') present major challenges for modern conservationists. All large carnivores need large areas to survive; but wild dogs and cheetah range more widely, and hence need larger areas, than almost any other terrestrial carnivore species anywhere in the world.

Both cheetah and wild dogs have experienced major contractions in their geographic range within southern Africa, with resident populations known to remain in just 22.6% (cheetah) and 17% (wild dogs) of their historical range within the region. Protected areas, particularly large ones like those found in Zambia, are extremely important for the conservation of both cheetah and wild dogs. Even so, the majority of these animals reside outside the protected areas: 77% of global cheetah resident range (Durant et al 2017), and 70% of wild dog resident range, falls on community and private lands, outside of formally protected areas.

In Zambia, protected areas such as Kafue National Park and North and South Luangwa National Parks are large enough to support viable or near-viable populations of both species, but even their long term sustainability depends on the areas surrounding them also being viable for cheetah and wild dogs. Even in Zambia therefore, conservation activity outside protected areas, as well as within, is absolutely critical for the long-term survival of these two species. Transboundary conservation and management is also important, where there is connectivity, or potential for connectivity with populations in neighbouring countries.

To help guide conservation efforts for cheetah and wild dogs in Zambia, a National Conservation Action Plan was first developed in 2009. This was comprehensively revised and updated in 2018, at a participatory workshop comprising representation from the Department of National Parks and Wildlife, species experts, NGOs and community representatives. The Action Plan was guided by the Regional Conservation Strategy for the Cheetah and African Wild Dog in Southern Africa (IUCN/SSC 2015) and intends to provide a framework to alleviate the threats facing the species and ensure their survival in Zambia.





## ***The National Conservation Action Plan for Cheetah & African Wild Dogs in Zambia***

The regional strategic plan for the species' conservation in southern Africa recognizes the need to (i) develop capacity in all aspects of cheetah and wild dog conservation in the region; (ii) improve knowledge on the conservation of both species; (iii) ensure that information relevant to both species is disseminated to stakeholders; (iv) minimise conflict and promote coexistence between cheetah, wild dog and people; (v) minimise the adverse effects of land development and implement best land use practice for cheetah and wild dog; (vi) obtain political commitment to cheetah and wild dog conservation; (vii) review and harmonise existing legislation and policy affecting cheetah and wild dog conservation; and (viii) facilitate the development and implementation of national conservation plans for both species.

All of these themes were adopted in the Zambian national plan, but made relevant at the local scale and practical for implementation at the national level. The workshop to develop this national action plan was also able to include a greater array of local expertise, providing a greater degree of knowledge and understanding of the issues and legal framework of Zambia, something that cannot be fully addressed at the regional level of planning.

### ***The workshop***

The second national action planning workshop for Zambia was held on the 22<sup>nd</sup> and 23<sup>rd</sup> March 2018, in Lusaka (Agenda available in Appendix 1). A total of 22 people attended the workshop, including 11 representatives of the Department of National Parks and Wildlife, 9 representatives of 8 different Zambian-based NGOs, one international NGO and the chairperson of the Community Resource Boards. A full list of participants is available in Appendix 2.



Figure 1: Participants at the March 2018 National Conservation Action Planning Workshop, Zambia

After a few presentations giving an update on the population, trends, occurrences and conservation issues for wild dogs and cheetah in Zambia's various key ecosystems, as well as on trends and drivers of poaching and trade, participants were tasked with revising and updating the distribution maps for both species in Zambia. Thereafter, participants translated the vision, goal, objectives, targets and actions incorporated in the regional strategy into a National Conservation Action Plan for Zambia. During this process each level was debated in a fully participatory manner and adapted to enable effective conservation of cheetah and African wild dog in Zambia. The formation of the National Conservation Action Plan is described below and the logframe of the plan included at the end of the report.

## **Revised range maps for cheetah and wild dog in Zambia**

One of the key activities of a national planning workshop is the revision of, and addition of detail to, range maps created at the regional workshop.

### ***Categories of current geographic range***

At the southern African regional workshop, held in Johannesburg in August 2015, the following range category definitions were agreed on. Further details on range definitions are provided in Appendix 3. Other than transient range, all categories were used in the Zambian mapping process.

- (1) **Resident range:** land where wild cheetah or wild dogs are known to still be resident. (A **Resident fenced** category is used for areas <1,000km<sup>2</sup> which are well fenced)
- (2) **Possible resident range:** land where wild cheetah or wild dogs may still be resident, but where residency has not been confirmed in the last 10 years.
- (3) **Transient range:** habitat used intermittently by cheetah or wild dogs, but where the species are known not to be resident and which does not connect to other resident ranges.
- (4) **Connecting range:** land where cheetah or wild dogs are not thought to be resident, but which dispersing animals may use to move between occupied areas, or to recolonise extirpated range. Such connections might take the form of 'corridors' of continuous habitat or 'stepping stones' of habitat fragments.
- (5) **Recoverable range:** land where habitat and prey remain over sufficiently large areas that either natural or assisted recovery of cheetah or wild dogs might be possible within the next 10 years if reasonable conservation action were to be taken.
- (6) **Extirpated range:** land where the species has been extirpated, and where habitat is so heavily modified or fragmented as to be uninhabitable by resident cheetah for the foreseeable future.
- (7) **Unknown range:** land where the species' status is currently unknown and cannot be inferred using knowledge of the local status of habitat and prey.

The revisions made to the maps created at the 2015 regional workshop, during the national workshop, were relatively small, but demonstrate the improved knowledge of the participants, and the new information available.

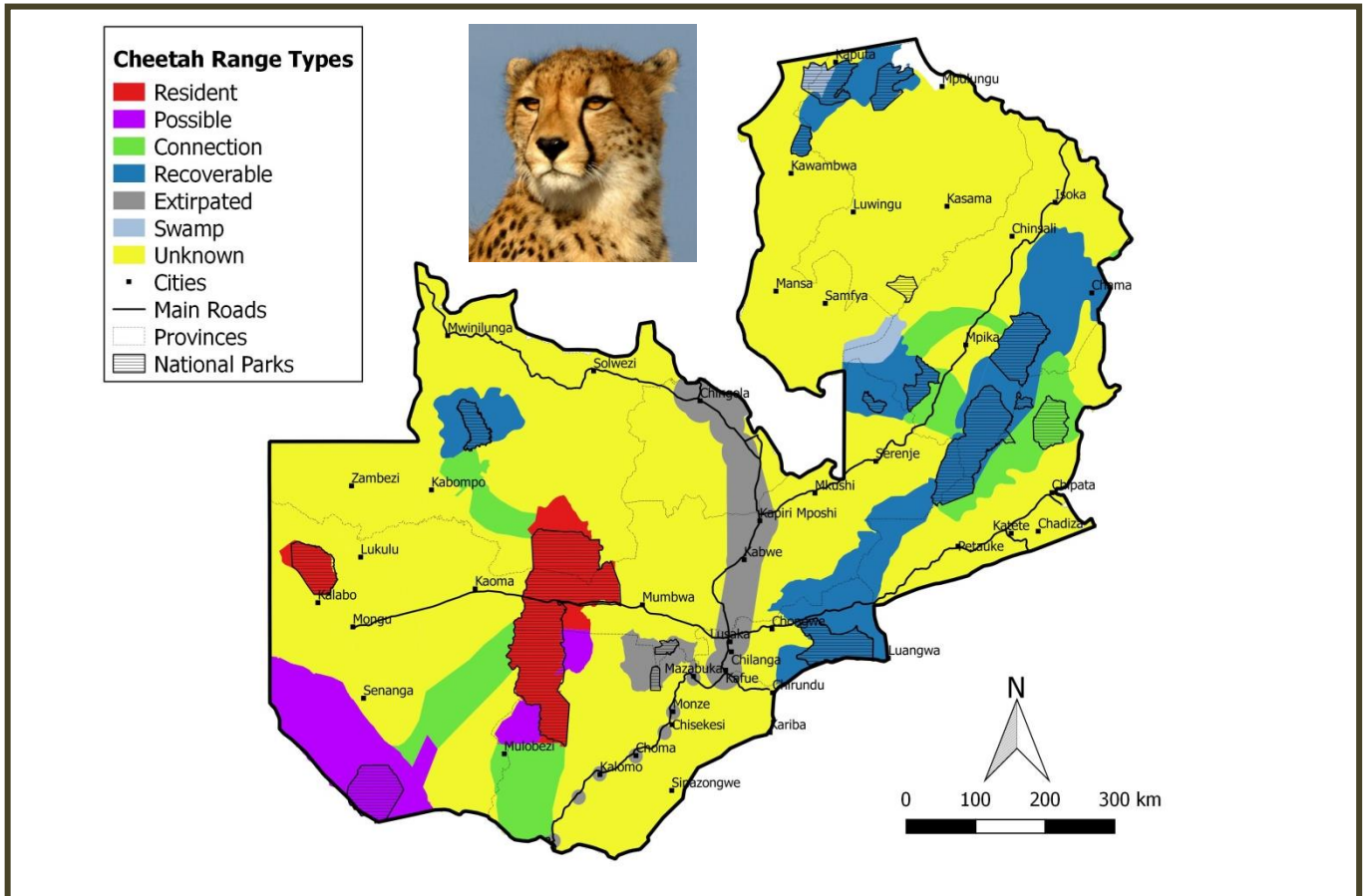


Figure 2: Cheetah Distribution in Zambia, updated at the National Action Planning Workshop, March 2018 (with thanks to Les Dillard, Conservation South Luangwa)

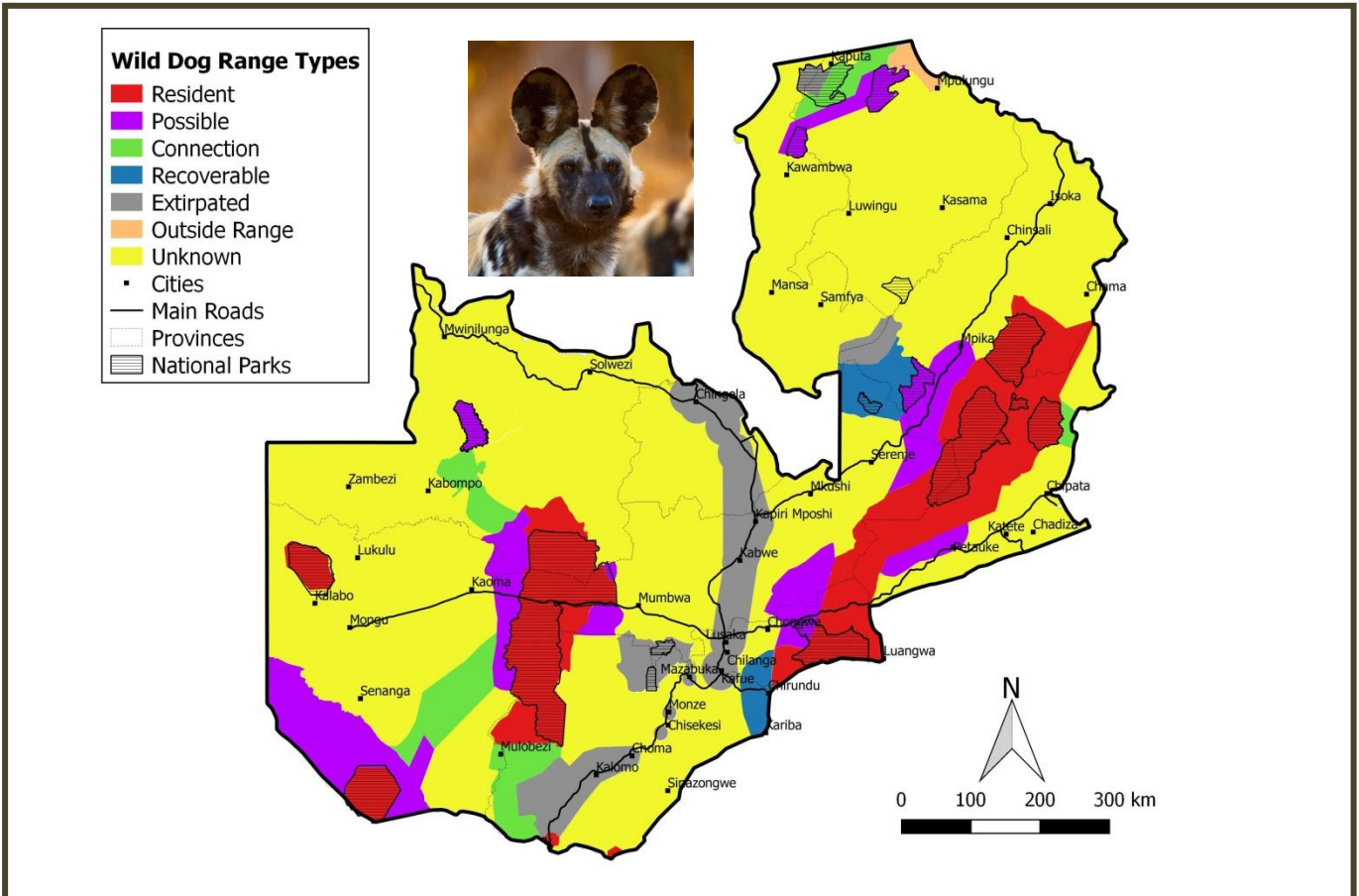


Figure 3: African Wild Dog Distribution in Zambia, updated at the National Action Planning Workshop, March 2018 (with thanks to Les Dillard, Conservation South Luangwa)

These updated range maps are useful in a number of ways:

- They are the recognised basis for the IUCN red list updates for distribution and numbers of both cheetah and African wild dogs
- They provide a documented history of changes in range of the two species over time
- They can be used to prioritise different types of conservation intervention

In principle, conservation activities for these species (e.g. management interventions, surveys, monitoring) might be conducted in any of these types of geographic range. Even in unrecoverable (extirpated) range, outreach and education activities may be vital for long-term conservation efforts on neighbouring lands. In order to improve our understanding of both cheetah and wild dogs' distribution and abundance, surveys should be prioritised in areas currently designated as unknown or possible range. Direct conservation efforts should be focussed in and around areas of resident range and areas of connecting range. Work in areas designated as recoverable range should focus on identifying and eliminating or mitigating the factors that caused the local extirpation of the species, with a view to eventual population recovery.

### ***Changes to the range maps since 2009***

As illustrated in the series of range maps presented in Figure 4, both the cheetah and the wild dog range maps have undergone various edits and changes since the first maps produced at the national planning workshop in 2009. Revisions reflect both real changes, as well as improved knowledge of the areas and the population distributions. For both species, one of the major changes agreed on during the 2018 workshop was a change in the designation of a huge area of land along the western boundary, north and south of Liuwa Plains NP, which was originally designated as extirpated (with a patch of recoverable range around Liuwa). It was agreed at the 2018 workshop that not enough is known about this area to be sure that both wild dogs and cheetah are extirpated and so it has been changed to unknown range (Figure 4).

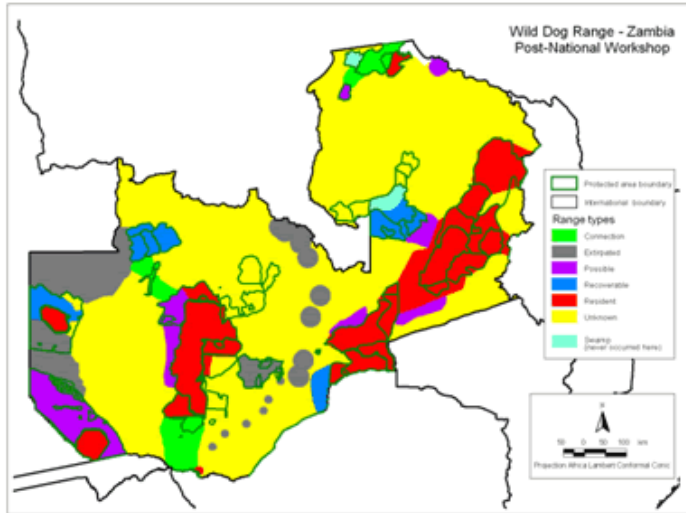
For wild dogs, the other changes to the 2015 maps, were to make West Lunga National Park 'possible resident' range, surrounded by unknown, whereas previously the park and its surrounds were designated as recoverable. This suggests a high likelihood that wild dogs are resident in the park, but no firm evidence. In addition a patch of previously considered 'probable' range, north of North Luangwa NP has also been re-designated as unknown range, reflecting reduced confidence that wild dogs may be present there. A couple of other small changes were made to probable range patches, one north east of Sioma NP and one south of Lake Mweru Wantipa and Sumbu NPs (Figure 4).

For cheetah, aside from turning the western extirpated and recoverable range around Liuwa Plains to unknown range, no other changes were made since 2015.

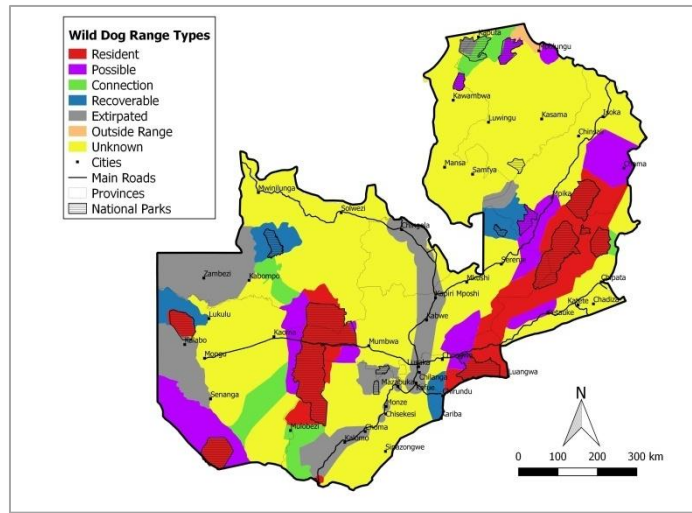
Actual changes to area of the different range types between 2009 and 2018 are presented in Table 1 below.

# WILD DOGS

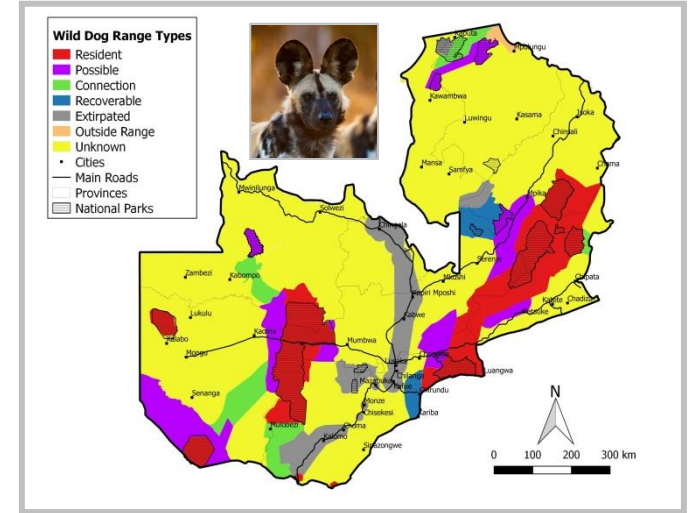
2009



2015

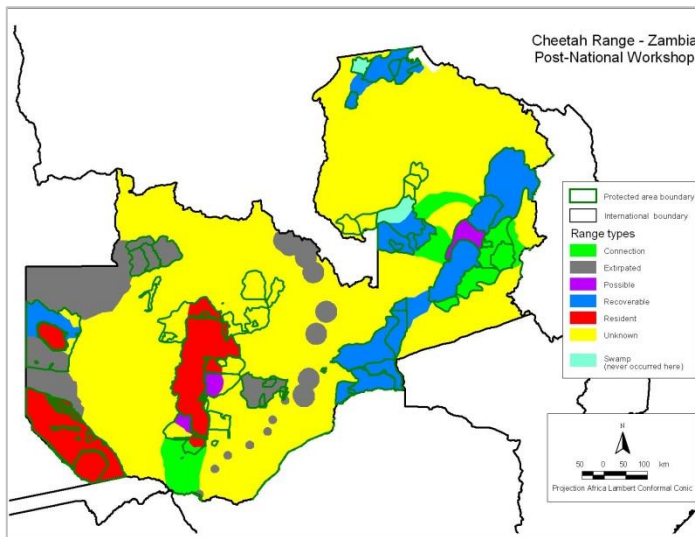


2018

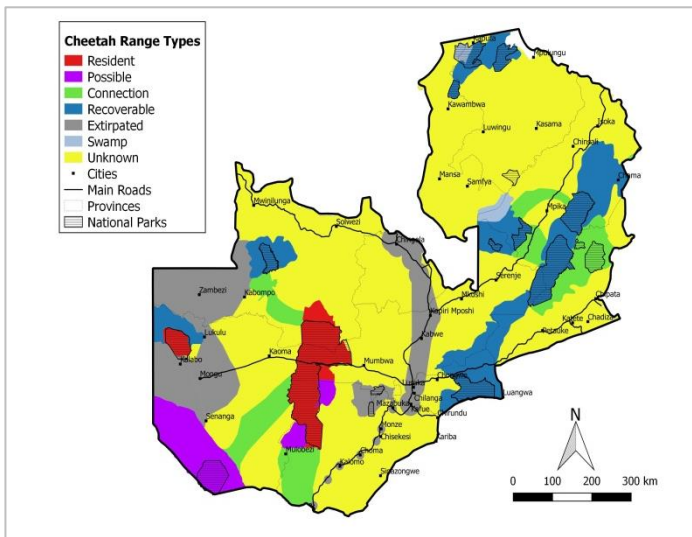


# CHEETAH

2009



2015



2018

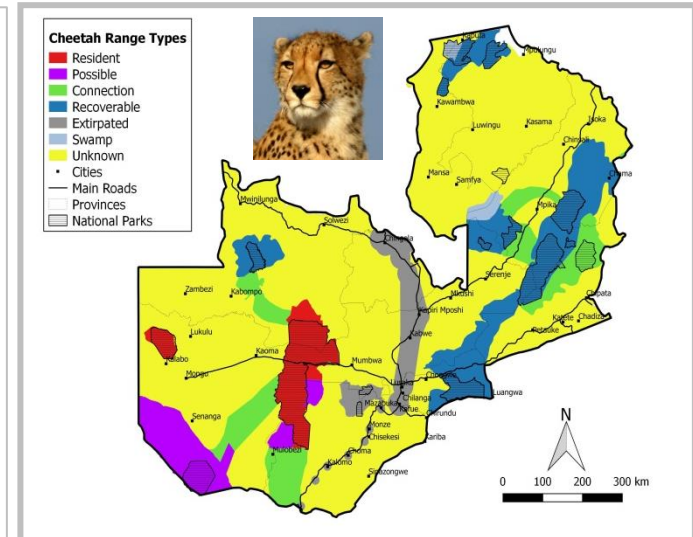


Figure 4: The range distribution maps for wild dogs and cheetah in Zambia from 2009, 2015 and 2018, showing changes between the years

## Areas of Range Types in Zambia, 2018

The table below provides the areas of the different range types in Zambia in 2018, together with a comparison of what they were in 2009, and the difference. All figures are from the maps agreed on at the national conservation planning workshops.

*Table 1. Summary of the extent of each type of range for wild dogs and cheetah within Zambia in 2009 and 2018 (in km<sup>2</sup>), and the change between the two years, as a result of the revisions of the maps at each national conservation planning workshop*

Range Type	African wild dogs			Cheetah		
	2009	2018	Change (km <sup>2</sup> )	2009	2018	Change (km <sup>2</sup> )
Resident	140,865	101,288	-39,577	58,113	30,198	-27,915
Possible resident	46,142	61,275	15,133	10,514	31,654	21,140
Connecting	21,782	28,670	6,888	34,482	51,915	17,433
Recoverable	25,501	12,084	-13,417	70,157	86,231	16,074
Extirpated	81,797	43,054	-38,743	98,791	32,612	-66,179
Unknown	429,034	498,750	69,716	473,064	512,511	39,447
Swamp	4,845	4,845	0	4,845	4,845	0
Outside historical range (Lake Tanganyika)	2041	2,041	0	2041	2,041	0
<b>Total</b>	<b>752,007</b>	<b>752,007</b>		<b>752,007</b>	<b>752,007</b>	

*\* 2009 figures were recalculated from the 2009 National Action Plan, to allow comparison with 2018 figures*

For both wild dogs and cheetah in Zambia, the area classified as resident range has decreased (Table 1). This is partially compensated for by an increase, for both species, of both possible resident and connecting range. The area of recoverable range has decreased for wild dogs, with two areas in the west previously classified as recoverable range, being reclassified as unknown or possible range (Figure 4). For cheetah the area designated as recoverable range has increased slightly (Table 1), largely due to the re-designation of West Lunga NP and surrounds as recoverable as opposed to extirpated.

Generally the biggest changes, for both cheetah and wild dogs, were in the extirpated and unknown categories. For both species, a large part of the area classified as extirpated in 2009 was changed to unknown, resulting in a decrease of extirpated range and an increase in unknown range for both species (Table 1 and Figure 4).



## The 2018 National Conservation Action Plan for Cheetah and Wild Dogs in Zambia

### *Vision and Goal*

No changes were made to the vision developed at the 2009 national planning workshop, and only a minor change to delete repetition was made to the goal. The substance remained exactly the same. As per the 2009 workshop, it was agreed that the vision incorporates the intrinsic value of cheetahs and wild dogs as well as their economic, social and cultural values. Viable is taken to mean a combination of viable numbers as well as connectivity within the system allowing for populations to disperse and interact, with the system ultimately being a naturally functioning metapopulation.

It was agreed that achieving secure, viable populations of cheetahs and wild dogs in Zambia would only be possible through a process of safeguarding existing populations, improving connectivity between populations as well as reintroducing animals into areas of the country where they occurred historically and are now thought to be absent or in low density. Participants agreed that this process would be incorporated into the goal statement by including the word “restore”.

The final vision and goal statements for 2018 were agreed as follows:

#### ***Vision***

Secure, viable cheetah and wild dog populations across a range of ecosystems, that successfully coexist with, and are valued by, the people of Zambia.

#### ***Goal***

Improve the status of cheetahs and wild dogs, and restore and secure additional viable populations across their range in Zambia<sup>1</sup>

<sup>1</sup>‘Restore’ was included in the previous national action plan and participants felt that explicit reference to restoration in the goal was important in the Zambian context. Participants wanted to retain the multiple meanings of ‘status’ (e.g. political status, as well as population status), and ‘value’, including full range of values from economic to intrinsic. Participants also wanted to flag the importance of connectivity in the Zambian context in the report. This includes the importance of maintaining connectivity within Zambia but also to note Zambia’s critically important role in contributing to wider connectivity across international boundaries such as through KAZA and MAZA.

## Objectives

The objectives of the 2015 revised regional strategy were used to guide the development of the objectives (as well as targets and activities) of this 2018 National Conservation Action Plan. Objectives were discussed in four working groups and then presented in plenary for final approval by all participants. The final objectives agreed on are as follows:

### **Objectives**

1. To **develop national capacity** in all aspects of cheetah and wild dog conservation in Zambia (*Capacity Development*)
2. To **improve knowledge** and expand research and generate information for the conservation of wild dogs and cheetahs in existing range areas across Zambia. (*Knowledge and information*)
3. To develop and implement mechanisms for the **transfer of information** relevant to cheetah and wild dog conservation and ensure active commitment of stakeholders to conservation. (*Information transfer*)
- 4 To **promote coexistence** of people with cheetah and wild dogs across Zambia (*Coexistence*)
- 5 **Promote best land use practices** that provide for the ecological needs of cheetah and wild dogs in priority range areas in Zambia (*Land use*)
6. To advocate for **increased political commitment** to the conservation of cheetah and wild dogs in Zambia (*Political commitment*)
- 7 To advocate for **stronger international and national legislation**, by-laws, policies and protocols to support cheetah and wild dog conservation (*Policy and legislation*)
8. To **maintain and implement current national conservation action plans** and utilise other relevant frameworks for the conservation of cheetah and wild dogs in Zambia. (*National Planning*)

## Targets and Activities

As with the objectives, the revised regional strategy was used to guide the development of the targets and activities of this 2018 National Conservation Action Plan. These were also discussed initially in four working groups, after which they were presented and agreed on in plenary. The updated targets and activities for Zambia are presented, with objectives, in the logframe below.



## National Conservation Action Plan for Cheetah and African Wild Dogs in Zambia (2018)

<b>Vision:</b>	Secure, viable cheetah and wild dog populations across a range of ecosystems that successfully coexist with, and are valued by, the people of Zambia
<b>Goal:</b>	Improve the status of cheetahs and wild dogs, and restore and secure additional viable populations across their range in Zambia <sup>1</sup>

Theme	Objective	Result	Activity	Actors	Timeframe
Capacity Development	1: To develop national capacity in all aspects of cheetah and wild dog conservation in Zambia	1.1. Gaps in national capacity in all areas of cheetah and wild dog conservation are identified and documented; existing capacity development programmes are supplemented and expanded.	1.1.1. To establish a national committee for capacity development for the conservation sector made up of key stakeholders from DNPW and conservation NGOs.	DNPW supported by NGOs and other experts	Within 6 months
			1.1.2. Provide national reports on the current situation and identify gaps for all capacity components (law enforcement, monitoring and research, education and outreach, protected area management, political will, etc.) in Zambia	National capacity committee	Within 1 year
			1.1.3. Share the Zambia national reports with the regional committee to develop a regional synthesis	National capacity committee, RWCP	Within 2 years
			1.1.4. Support and expand existing capacity development programmes in research monitoring, veterinary services and law enforcement as relevant to cheetah and wild dog conservation.	National capacity committee	Within 3 years and on-going
		1.2. A national strategy is developed and implemented for developing capacity (based on the regional synthesis report) across all levels	1.2.1. Identify a representative from Zambia to join the committee to develop the regional capacity development strategy	DNPW	Within 1 year
			1.2.2. Develop the results and activities required for capacity development at the national level, aligned where possible	DNPW supported by	Within 3 years

<sup>1</sup>'Restore' was included in the previous national action plan and participants felt that explicit reference to restoration in the goal was important in the Zambian context.

Participants wanted to retain the multiple meanings of 'status' (e.g. political status, as well as population status), and 'value', including full range of values from economic to intrinsic.

Participants wanted to flag the importance of connectivity in the Zambian context in the report. This includes the importance of maintaining connectivity within Zambia but also to note Zambia's critically important role in contributing to wider connectivity across international boundaries such as through KAZA and MAZA.

Theme	Objective	Result	Activity	Actors	Timeframe
			with regional and international initiatives	RWCP	
			<b>1.2.3.</b> Identify and engage with appropriate training institutions in order to secure relevant expertise	DNPW supported by RWCP	Within 3 years
			<b>1.2.4.</b> Activate and source funds to implement the capacity development strategy at the national level	DNPW supported by NGOs & RWCP	Within 3 years
			<b>1.2.5.</b> Implement the activities identified in the capacity development strategy (in 1.2.2 above) on a national level	DNPW, NGOs, Private sector	Within 5 years and on-going
			<b>1.2.6.</b> Make use of the RWCP website to access relevant resources and networks	DNPW, NGOs, Private sector	On-going
			<b>1.2.7.</b> Evaluate the effectiveness of the National Capacity Development Strategy based on the evaluating mechanism established by the National Committee	DNPW & RWCP	After 5 years
<b>2. Knowledge and information</b>	2: To improve knowledge and expand research and generate information for the conservation of wild dogs and cheetahs in existing range areas across Zambia.	2.1. Acquire information about current and historical status, distribution and connectivity of cheetah and wild dog populations across Zambia and assess recoverable and non-recoverable priority range areas within five years	<b>2.1.1.</b> Maintain and expand long term monitoring programmes of cheetah and wild dog populations in resident range	ZCP, Panthera, DNPW	On-going
			<b>2.1.2.</b> Continue to contribute to the ongoing cheetah and wild dog atlas	ZCP, CLZ, Panthera, GRI, DNPW	On-going
			<b>2.1.3.</b> Continue field studies on dispersal in both species, including factors influencing dispersal success	DNPW, ZCP, Panthera	On-going
			<b>2.1.4.</b> Continue studies on cheetah and wild dogs feeding ecology in different areas in relation to potential range	DNPW, ZCP, Panthera	On-going
			<b>2.1.5.</b> Assess viability and connectivity of small wild dog and cheetah populations	DNPW, ZCP, Panthera, CLZ	On-going
			<b>2.1.6.</b> Continue to conduct surveys in unknown and possible range to assess population status and distribution for cheetah and wild dogs	DNPW, ZCP, Panthera, CLZ	On-going
			<b>2.1.7.</b> Assess recoverable priority range areas for factors likely to influence recolonization (natural or artificial)	DNPW, ZCP, Panthera, CLZ	Within 5 years
			<b>2.1.8.</b> Collate and make available best practice guidelines and ethical considerations for cheetah and wild dog research, conservation, tourism and reintroduction	DNPW, ZCP, Panthera, CLZ, RWCP	Within 3 years
			<b>2.1.9.</b> Continue research into new and improved ways to survey and monitor cheetah and wild dogs	DNPW, ZCP, Panthera, CLZ, RWCP	On-going

Theme	Objective	Result	Activity	Actors	Timeframe
			<b>2.1.10.</b> Create a DNPW central database on cheetah and wild dog for DNPW's internal use, respecting data ownership, and identify a coordinator to maintain it	DNPW	Within 2 years
		<b>2.2.</b> Standardised, quantitative knowledge of threats and their mitigation are generated and disseminated across Zambia, including on poaching for bush-meat, habitat loss and fragmentation, illegal trade, climate change and irresponsible captive management.	<b>2.2.1.</b> Gather and disseminate information on the best practise for captive management of existing captive wild dog and cheetahs in private wildlife estates	DNPW supported by RWCP & NGOs	Within 1 year
			<b>2.2.2.</b> Disseminate the wildlife policy to enforce prohibition of keeping cheetah and wild dog in captivity	DNPW	Within 1 year
			<b>2.2.3.</b> Gather and disseminate information on present and emerging threats to cheetah and wild dog conservation from the bush-meat trade	NGOs & DNPW	Within 3 years
			<b>2.2.4.</b> Gather and disseminate information on threats caused by game farming/ranching	NGOs & DNPW	Within 2 years
			<b>2.2.5.</b> Gather and disseminate information on loss and fragmentation of cheetah and / or wild dog habitat.	DNPW, ZCP, Panthera, CLZ	Within 2 years
			<b>2.2.6.</b> Gather and disseminate information on conservancy models and illustrate the potential benefits of conservancies as an alternative to game farming/ranching.	DNPW, Panthera, RWCP	Within 3 years
			<b>2.2.7.</b> Gather and disseminate information on management of areas of connectivity.	DNPW, WWF, other NGOs	Within 3 years
		<b>2.3.</b> Standardised, quantitative knowledge of human-carnivore conflict mitigation across Zambia is generated and disseminated	<b>2.3.1.</b> Compile available data on conflict, threats and their mitigation and, where possible, collate in standardised formats	Panthera, ZCP, WCP, GRI, DNPW	Within 3 years
			<b>2.3.2.</b> Initiate studies (field studies, surveys, questionnaires for historical and existing data) to quantify conflict, threat, their drivers and mitigation and effects on population viability	DNPW, Panthera, ZCP, WCP	Within 2 years
			<b>2.3.3.</b> Identify shortfalls in existing knowledge about conflicts, threats and their mitigation	DNPW & NGOs	Within 2 years
			<b>2.3.4.</b> Continue gathering knowledge on present and emerging threats to cheetah and wild dog conservation including illegal trade and develop mitigation measures	DNPW & NGOs	Within 2 years and on-going
			<b>2.3.5.</b> Produce and distribute handbook on human carnivore mitigating methods	DNPW	Within 3 years

Theme	Objective	Result	Activity	Actors	Timeframe
<b>3. Information transfer</b>	3. To develop and implement mechanisms for the transfer of information relevant to cheetah and wild dog conservation and ensure active commitment of stakeholders to conservation.	<b>3.1.</b> Relevant benefits of cheetah and wild dog shared with local communities, governments and landowners within three years	<b>3.1.1.</b> Hold meetings and workshops with communities, land owners, game farmers, tour operators, government departments and other stakeholders, to collect information to identify relevant incentives and benefits	DNPW, CRBs & NGOs	Within 3 years
			<b>3.1.2.</b> Sensitise leaders to the value of cheetah and wild dog conservation	DNPW & CRBs	On-going
		<b>3.2.</b> Develop multimedia projects and materials for distribution to the Zambian public	<b>3.2.1.</b> Develop and use posters, leaflets, radio, TV, video, pictures and theatre groups to disseminate information locally	DNPW, NGOs, Ministry of Education	On-going
			<b>3.3.</b> Awareness programs of threats and benefits across the country in areas where the species occur or are likely to occur within one year initiated and established.	<b>3.3.1</b> Develop curricula regarding cheetah and wild dogs and integrate with activities of Chongololo and Conservation Clubs	Ministry of Education, DNPW & NGOs
		<b>3.3.2</b> Organise competitions, essays, etc in schools and between schools to enhance and highlight conservation education		Ministry of Education, DNPW & NGOs	Within 3 years and on-going
		<b>3.3.3</b> Encourage sponsorship of sports teams, clubs and groups named after cheetah and wild dog at all levels.		Ministry of Education, DNPW & NGOs	On-going
		<b>3.3.4</b> Link with existing initiatives and provide relevant information and interpretive materials to support judicial and law enforcement agencies.		DNPW, WCP, CSL, Magistrates	On-going
		<b>3.4</b> Create forums for sharing information about cheetah and wild dogs within three years.	<b>3.4.1</b> Hold at least one annual national workshop with government, researchers, private sector and NGOs to share information on the conservation management of cheetah and wild dog	DNPW, supported by RWCP	On-going
			<b>3.4.2</b> Participate in a wider range of meetings and stakeholder interest groups (i.e. those not directly concerned with conservation) to disseminate information about cheetah and wild dog conservation.	DNPW & NGOs	On-going
		<b>4. Coexistence</b>	4. To promote coexistence of people with cheetah and wild	<b>4.1.</b> The deliberate killing of cheetah and wild dogs is reduced	<b>4.1.1.</b> Support, expand and improve current monitoring of trends and patterns of deliberate killing of cheetah and wild dogs across Zambia, and collate data annually on a national level while maintaining regional communications.

Theme	Objective	Result	Activity	Actors	Timeframe
	dogs across Zambia		<b>4.1.2.</b> Clarify and advocate for enforcement of laws pertinent to killing of cheetah and wild dogs across Zambia	DNPW, WCP, CSL	On-going
		<b>4.1.3.</b> Identify conflict areas and clarify extent of actual versus perceived losses caused by cheetah and wild dogs, on an ongoing basis; ensure effective synthesis into land-use planning and conflict mitigation.	DNPW with input from CRB & local & international NGOs	On-going	
		<b>4.1.4.</b> Sensitize and enable relevant stakeholders to adopt livestock husbandry practices proven to reduce depredation.	DNPW with input from CRB & local & international NGOs	On-going	
		<b>4.1.5.</b> Develop and implement national standard operating procedures on acceptable responses to conflict situations within two years and encourage information exchange between range states (e.g. procedures on captures, translocation, lethal control etc.).	DNPW, ZCP, Panthera	Within 2 years and on-going	
		<b>4.1.6.</b> Implement human-wildlife conflict rapid response teams to react quickly and effectively to conflict situations, across Zambia.	DNPW with input from CRB & local & international NGOs	Within 2 years	
		<b>4.1.7.</b> Initiate and continue targeted programmes to combat negative perceptions of cheetah and wild dogs in Zambia	DNPW with input from CRB & local & international NGOs	Within 1 year and on-going	
		<b>4.1.8.</b> Initiate and continue poisons response training and implement poison response protocol across DNPW Area Management Units Zambia.	DNPW, ZCP	Within 1 year and on-going	
		<b>4.1.9.</b> Coordinate anti-trafficking and sensitization efforts with ongoing cheetah and wild dog research and monitoring to direct law enforcement and community awareness efforts to areas of high risk.	DNPW, WCP, ZCP, Panthera, CSL	On-going	
		<b>4.2.</b> The levels of incidental mortality in cheetah and wild dogs are reduced	<b>4.2.1.</b> Support, expand and improve current monitoring of trends and patterns of incidental killing of cheetah and	DNPW, ZCP, Panthera	On-going

Theme	Objective	Result	Activity	Actors	Timeframe
		across Zambia within five years.	wild dogs across Zambia, and collate data annually on a national level while maintaining regional communications.		
			<b>4.2.2.</b> Reduce snaring mortality of cheetah and wild dogs through initiatives such as anti-poaching/anti-snaring, integrated community-based population, health and environment, outreach and education initiatives.	DNPW with input from CRB & local & international NGOs	On-going
			<b>4.2.3.</b> Coordinate anti-poaching, and sensitization efforts with ongoing cheetah and wild dog research and monitoring to direct law enforcement and community awareness efforts to areas of high risk.	DNPW, ZCP, Panthera, CSL	On-going
			<b>4.2.4.</b> Initiate effective disease mitigation programmes to manage diseases that threaten cheetah and wild dog population viability.	DNPW with input from CRB & local & international NGOs	On-going
			<b>4.2.5.</b> Substantially reduce road mortality of cheetahs and wild dogs through law enforcement and awareness campaigns.	DNPW with input from CRB & local & international NGOs	On-going
			<b>4.2.6.</b> Substantially reduce poisoning mortality of cheetahs and wild dogs through law enforcement and awareness campaigns.	DNPW with input from CRB & local & international NGOs	On-going
		<b>4.3.</b> The perceived intrinsic and economic value of cheetah and wild dogs to all stakeholders are measurably increased within five years.	<b>4.3.1.</b> Quantify and monitor the perceived intrinsic and economic value of cheetah and wild dogs to all stakeholders.	DNPW with input from CRB & local & international NGOs	On-going
			<b>4.3.2.</b> Promote wildlife-based economic activities that promote cheetah and wild dog conservation and directly benefit communities and other stakeholders, across Zambia.	DNPW with input from CRB & local & international NGOs	Within 5 years

Theme	Objective	Result	Activity	Actors	Timeframe		
			4.3.3. Investigate and highlight the cultural significance of cheetah and wild dogs across Zambia.	DNPW with input from CRB & local & international NGOs	Within 1 year and on-going		
			4.3.4. Develop self-sustaining community initiatives that offset the costs of, and internalise the responsibilities for, conflict on an ongoing basis.	DNPW with input from CRB & local & international NGOs	On-going		
			4.3.5. Develop income generation and capacity development projects linked to cheetah and wild dog conservation	DNPW with input from CRB & local & international NGOs	Within 3 years and on-going		
		4.4. Socio-economic drivers to foster co-existence of land users with cheetahs and wild dogs are addressed.	4.4.1. Identify socio-economic factors relevant to cheetah and wild dog conservation.	DNPW with input from CRB & local & international NGOs	Within 2 years		
			4.4.2. Identify and engage key stakeholders and experts to address socio-economic threats to cheetahs and wild dogs.	DNPW with input from CRB & local & international NGOs	Within 5 years		
			4.4.3. Develop strategies to address socio-economic threats to cheetah and wild dogs.	DNPW with input from CRB & local & international NGOs	Within 5 years		
			4.4.4. Encourage Zambia to develop an economic strategy that promotes co-existence with cheetahs and wild dogs.	DNPW with input from CRB & local & international NGOs	Within 5 years		
		5. Land use	5.Promote best land	5.1. Current and proposed trends in land use are evaluated against the	5.1.1. Map the current and potential land use practices in and around priority range including corridors for cheetah and	DNPW, Ministry of	Within 2 years

Theme	Objective	Result	Activity	Actors	Timeframe
	use practices that provide for the ecological needs of cheetah and wild dogs in priority range areas in Zambia	conservation needs of cheetah and wild dog	wild dog	Lands, NGOs	
			5.1.2. Evaluate and map threats to cheetah and wild dog populations from current and potential land use practices	DNPW with input from CRB & local & international NGOs	Within 3 years
			5.1.3. Collate and develop guidelines based on case studies of land-use strategies associated with successful cheetah and wild dog conservation in relevant countries in the region (Namibia and Botswana)	DNPW with input from CRB & local & international NGOs	Within 2 years
			5.1.4. Use the information from threat mapping to inform land use planning processes in and around priority range for cheetah and wild dog	DNPW, NGOs,	Within 4 years
		5.2. Cheetah and wild dog conservation is aligned with development needs through integrated and innovative land use approaches	5.2.1. Develop and recommend land use guidelines for development in collaboration with government and relevant stakeholders	DNPW with input from CRB & local & international NGOs	Within 2 years
			5.2.2. Promote and link agriculture and range management programmes to relevant areas.	DNPW with input from CRB & local & international NGOs	Within 4 years
			5.2.3. Coordinate with the providers of training programmes to increase the capacity of agricultural communities to practice sustainable range management	DNPW, NGOs, Ministry of Agriculture	Within 3 years
			5.2.4. Assess the effectiveness of new and existing livestock husbandry and range management programmes against the conservation needs of cheetahs and wild dogs and disseminate results annually to inform adaptive management strategies	DNPW with input from CRB & local & international NGOs	Within 5 years
			5.2.5. Utilize private public partnerships to advance best land use practices for cheetah and wild dog conservation	DNPW & NGOs (e.g. Africa Parks, FZS)	Within 2 years
			5.3. The formation of landscape scale	5.3.1. Evaluate opportunities for partnerships for management	DNPW with



Theme	Objective	Result	Activity	Actors	Timeframe
		wildlife management units (e.g. conservancies, community parks etc.) is promoted.	of wildlife areas as landscape and management units for cheetahs and wild dogs	input from CRB & local & international NGOs	years
			<b>5.3.2.</b> Monitor the development of landscape scale wildlife management units (e.g. large, multiple use areas that could encompass conservancies, parks and community grazing areas) and their influence on cheetah and wild dog conservation to optimise current resident range, maintain and recover corridors and connectivity and enable adaptive management	DNPW, NGOs, Ministry of Lands	Within 4 years
			<b>5.3.3.</b> Promote wild dogs and cheetah as the flagship species of large landscape level habitat conservation initiatives. (e.g. TFCA)	DNPW & NGOs	On-going
			<b>5.3.4.</b> Strengthen and increase (by 20%) buffer zones around areas with potential for cheetah and wild dog conservation through promoting community participation and partnership opportunities	ZCP, Panthera, FZS, CLZ, DNPW	Within 5 years
		<b>5.4.</b> Cheetah and wild dog range is expanded within Zambia in areas of recoverable range.	<b>5.4.1.</b> Identify priorities, assess and secure recoverable range	DNPW, supported by NGOs & RWCP	Within 2 years and on-going
			<b>5.4.2.</b> Work with partner organisations to develop reintroduction plans in line with IUCN reintroduction guidelines	DNPW and RWCP	Within 2 years
			<b>5.4.3.</b> Identify appropriate source populations of cheetah	DNPW & RWCP	Within 3 years
			<b>5.4.4.</b> Reintroduce a viable population of cheetah to at least one site	DNPW, ZCP, RWCP, Other NGOs	Within 5 years
			<b>5.4.5.</b> Monitor reintroduction efforts and individual animals for at least five years post release.	DNPW & Relevant NGO	For 5 years and on-going
		<b>6. Political commitment</b>	<b>6.</b> To advocate for increased political commitment to the conservation of	<b>6.1.</b> Relevant transboundary and large landscape conservation initiatives that will benefit the conservation of cheetahs and wild dogs are promoted (DNPW with input from	<b>6.1.1.</b> Develop and promote further transboundary agreements and strategies that will benefit cheetah and wild dog

Theme	Objective	Result	Activity	Actors	Timeframe
	cheetah and wild dogs in Zambia	CRB, local and national conservation NGOs)	<p><b>6.1.2.</b> Link and partner with local and international advocacy organisations, (e.g. CMS, CBD and IUCN) to achieve effective transboundary conservation efforts.</p> <p><b>6.1.3.</b> Develop and promote further agreements and strategies for large landscape conservation that will benefit cheetah and wild dog</p>	<p>DNPW with input from CRB &amp; local &amp; international NGOs</p> <p>NGOs, RWCP, TFCA units</p>	<p>Within 5 years</p> <p>Within 5 years</p>
<b>7. Policy and Legislation</b>	7. To advocate for stronger international and national legislation, by-laws, policies and protocols to support cheetah and wild dog conservation	<b>7.1</b> The relevance and efficacy of current national, regional and international policies, protocols and legislation pertaining to the conservation of cheetah and wild dogs is assessed.	<b>7.1.1</b> Review the new Wildlife Policy and identify any gaps relevant to cheetah and wild dog conservation	DNPW, Environmental lawyers	Within 1 year
			<b>7.1.2</b> Carry out a national assessment of the efficacy and suitability of all other frameworks, and compile recommendations.	DNPW, Environmental lawyers	Within 3 years
		<b>7.2</b> Cheetah and wild dog conservation actions are aligned to existing national and international policies, protocols and legislation, and revision is lobbied for where appropriate.	<b>7.2.1</b> Address any identified gaps in the new Wildlife Policy relevant to cheetah and wild dog conservation	DNPW, Environmental Lawyers	Within 1 year
			<b>7.2.2</b> Where appropriate, develop new statutory instruments to address any gaps in policy and legislation that detrimentally affect the conservation of cheetah and wild dogs	DNPW, Environmental Lawyers	Within 2 years
		<b>7.3</b> Zambia actively participates in biodiversity-related multilateral environmental agreements (MEAs, e.g. CMS, CBD, CITES, SADC protocols, WENSA) and other international processes relevant to cheetah and wild dog.	<b>7.3.1</b> Investigate how existing MEAs can facilitate cheetah and wild dog conservation, and make recommendations for possible action and adoption.	DNPW, Environmental Lawyers, RWCP	Within 3 years
			<b>7.3.2</b> Ratify and actively participate in the Convention on Migratory Species and other relevant conventions.	DNPW	Within 4 years
			<b>7.3.3</b> Investigate and obtain support for this strategy from CMS and other MEAs.	DNPW, supported by RWCP	Within 2 years
			<b>7.3.4</b> Develop and/or identify existing relevant motions for submission to the 2020 IUCN World Conservation Congress.	DNPW supported by RWCP	Within 2 years

Theme	Objective	Result	Activity	Actors	Timeframe
		7.4 This revised plan for the conservation of cheetah and African wild dogs is incorporated into Zambia's national conservation plans and strategies	7.4.1 Incorporate this National Conservation Action Plan for Cheetah and African Wild Dog into the next update of Zambia's National Biodiversity Strategy and Action plan (NBSAP)	DNPW	Within 3 years
			7.4.2 Prioritize the conservation of Cheetahs and Wild Dogs in the implementation of the Programme of Work for Protected Areas (POWPA)	DNPW	On-going
			7.4.3 Prioritise the conservation of Cheetahs and Wild Dogs in Zambia's Global Environmental Facility (GEF) allocations	Ministry of Tourism & Arts and Ministry of Environment and Natural Resources	On-going
		7.5 The capacity of law enforcement and judicial agencies to implement legislation, policies and protocols relevant to cheetah and wild dog conservation is improved.	7.5.1 Identify and align with existing law enforcement networks, and prioritise capacity needs to enforce legislation, policies and protocols relevant to cheetah and wild dog conservation.	DNPW, WCP, GRI, CSL, National law enforcement networks	Within 3 years
			7.5.2 Secure resources required to build and improve capacity on cheetah and wild dog conservation.	DNPW, Local NGOs, RWCP	On-going
			7.5.3 Maintain ongoing engagement with existing networks dealing with, <i>inter alia</i> , issues of bushmeat poaching, law enforcement, illegal trade, problem animal control relevant to cheetah and wild dog conservation	DNPW, WCP, GRI, National law enforcement networks	On-going
			7.5.4 Increase awareness of the judicial agencies on the status of cheetah and wild dog to understand the gravity of the problem (and to act accordingly)	DNPW, WCP	Within 2 years and on-going
		8. National Planning	8. To maintain and implement current national conservation action	8.1. The National Conservation Action Plan for Zambia is revised to ensure it remains S.M.A.R.T and in line with the regional strategy, every 5 years. (DNPW, ZCP, RWCP)	8.1.1. Identify key stakeholders and a respective point person to facilitate the revision process.
8.1.2. Revise the National Conservation Action Plans in Zambia every 5 years.	DNPW, ZCP, RWCP				Every 5 years

Theme	Objective	Result	Activity	Actors	Timeframe
	plans and utilise other relevant frameworks for the conservation of cheetah and wild dogs in Zambia.	<b>8.2.</b> The implementation of the revised national strategy is facilitated.	<b>8.2.1.</b> Identify appropriate mechanisms within Zambia for driving the implementation process	DNPW, RWCP, ZCP, Panthera	Within 6 months
<b>8.2.2.</b> Identify constraints and, where possible, provide the means to ensure implementation of the revised national strategy			DNPW, RWCP, ZCP, Panthera	Within 1 year	
<b>8.2.3.</b> Encourage all stakeholders to use the revised national conservation action plan to guide their conservation actions at all times.			DNPW, RWCP, ZCP, Panthera	On-going	
<b>8.2.4.</b> Arrange a stakeholder workshop within Zambia to exchange information on the implementation process of national conservation action plan.			DNPW, ZCP, RWCP	Within 6 months	

## References

Durant et al (2017) The global decline of cheetah *Acinonyx jubatus* and what it means for conservation *PNAS*, 114 (3) 528-533 (DOI: 10.1073/pnas.1611122114)

IUCN/SSC (2015). Review of the Regional Conservation Strategy for the Cheetah and African Wild Dogs in Southern Africa. IUCN/SSC Gland, Switzerland and Range Wide Conservation Program for Cheetah and African Wild Dogs, [www.cheetahandwilddog.org](http://www.cheetahandwilddog.org)

## Appendix 1: Workshop Agenda

Thursday 22<sup>nd</sup> March 2018

- 8:00 – 8:30** Arrival and registration of participants
- 8:30 – 8:45** Meeting starts with an opening prayer and participant introductions
- 8:45 – 9:00** Welcome and opening remarks: **Assistant Director, Research and Veterinary Services, DNPW**
- 9:00 – 9:15** Official Speech: **Director, Department of National Parks and Wildlife**
- 9:15 – 9:30** Background to Conservation of Cheetah and African Wild Dogs in Zambia, and overview of National Action Plan implementation to date **DNPW**
- 9:30 – 10:00** Presentations:
- 9:30 – 9:45 **Zambian Carnivore Program** - Population, trends, occurrences and conservation issues for Wild Dogs and Cheetah in Luangwa systems, and Liuwa Plains
  - 9:45 – 10:00 **Conservation Lower Zambezi** - Population, trends, occurrences and conservation issues for Wild Dogs and Cheetah in Lower Zambezi systems
- 10:00 – 10:30** TEA BREAK
- 10:30 – 11:00** Presentations continued:
- 10:30 – 10:45 **Wildlife Crime Prevention Project & IIU** - Trends in Poaching and Trade and what is driving it.
  - 10:45 – 11:00 **Panthera** -Population, trends, occurrences and conservation issues for Wild Dogs and Cheetah in the Greater Kafue Ecosystem
- 11:00 – 11:30** Summary of presentations, progress, gaps and challenges for Cheetah and Wild Dog Conservation in Zambia **RWCP Project Leader**
- 11:30 – 11:45** Introduction to mapping session, and revision of range category definitions
- 11:45 – 12:30** Revision of the Cheetah Distribution Map for Zambia **Facilitated by RWCP Southern African Coordinator**
- 12:30- 13:30** LUNCH BREAK
- 13:30 – 14:15** Revision of the Wild Dog Distribution Map for Zambia **Facilitated by RWCP Southern African Coordinator**
- 14:15 – 14:30** Revision of Vision and Goal for Zambian NAP **Facilitated by RWCP Project Leader**
- 14:30 – 15:30** Split into 4 Working Groups and allocate two objectives to each group: Working Groups to revise and update Objectives for the NAP.
- 15:30 – 16:00** TEA BREAK
- 16:00 – 17:00** Working Group rapporteurs report back their revised objectives, and these are finalised and agreed on in plenary
- 17:00** END OF DAY 1

## Friday 23<sup>rd</sup> March 2018

**8:00 – 8:30** Presentation of final updated maps for agreement in plenary

**8:30 – 10:30** Return to Working Groups and work on updating Targets and Activities

**10:30 – 11:00** TEA BREAK

**11:00 – 11:30** Working Groups finalise Targets and Activities

**11:30 – 12:30** Working Groups report back on Targets and Activities for plenary discussion and consensus....

**12:30 – 13:30** LUNCH BREAK

**13:30 - 15:00** Continued: Working Groups report back on Targets and Activities for plenary discussion and consensus continued

**15:00 – 15:30** Summary and Conclusions ***RWCP Project Leader***

**15:30 – 15:45** Way forward ***Principle Ecologist***

**15:45 – 16:00** Closing remarks ***Assistant Director, Research and Veterinary Unit, DNPW***

**16:00** END OF MEETING

## Appendix 2: List of participants

No	Name	Organisation	Position	Email
1	Paul Zyambo	DNPW <sup>1</sup>	Director	Info.dnpw@MOTA.gov.zm
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5	James Milanzi	AP <sup>3</sup>	Director	jamesm@africanparks.org
6	Ian Stevenson	CLZ <sup>5</sup>	Chief Executive Officer	ian@conservationlowerzambezi.org
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8	Matt Becker	ZCP	Chief Executive Officer	matt@zambiacarnivores.org
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12	Felix Shanungu	CRBs <sup>7</sup>	Chairperson	
13	Rhoda Kachali	DNPW <sup>1</sup>	Senior Ecologist	rkachali@gmail.com
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22	Andrew Mulenga B	DNPW	Education Officer	Andrew.Mulenga@MOTA.gov.zm
23	MatolasePhiri	DNPW	Senior Investigations Officer	mattyphiri@yahoo.co.uk

1-Department of National Parks and Wildlife, 2-Conservation South Luangwa, 3-African Parks, 4-Wildlife Crime Prevention Project, 5-Conservation Lower Zambezi, 6-Zambian Carnivore Programme, 7-Community Resource Boards, 8-Frankfurt Zoological Society, 9-World Wide Fund, 10-Range Wide Conservation Program for Cheetah and African Wild Dogs



### Appendix 3: Full definition of range categories

Below is the full definition of the range categories as agreed at the Southern African regional workshop in 2015.

(1) **Resident range:**

Land where the species was known to still be resident. This recognised the knowledge that both cheetah and wild dogs have excellent dispersal abilities, meaning that not every point location indicates the presence of a resident population; some may indicate transient dispersing animals. Resident range was defined as areas where (i) the species has been regularly detected over a period of several years; (ii) there was evidence of breeding (e.g. young cheetah cubs sighted, or wild dog pups or dens recorded); and (iii) for wild dogs, there were sightings of complete packs (groups containing members of both sexes, usually >3 animals) rather than small groups ( $\leq 3$  animals), or single-sex groups, which are likely to be dispersal groups.

(2) **Possible Resident Range\*:**

Land where the species may still be resident, but where residency had not been confirmed in the last 10 years. Usually these would be areas which contain suitable habitat and prey, but which have had little or no ground-based surveying in recent years (aerial surveys are unlikely to detect either species). Some areas were considered to constitute possible range because only unconfirmed reports (e.g. reports from inexperienced observers), or only sparse, irregular sightings were available or there were only reports of transient individuals or groups. This also includes once off surveys that have detected presence but not breeding behaviour.

*\* In the attribute table, it is made clear whether the range is possible resident with presence recorded (i.e. from a once off survey or sporadic sightings, excluding pups or cubs) or where presence has not been recorded, but expert opinion is of the consensus there would be wild dogs or cheetah resident there (due to suitable habitat and prey availability)*

(3) **Transient Range\*:**

Habitat used intermittently by wild dogs or cheetah, but known not to be used regularly, providing no connection to areas of resident, possible or unknown range, and unlikely to be made suitable for use by resident wild dog or cheetah populations through any reasonable form of management. Such areas are likely to be natural habitats that are only marginally suitable for cheetah or wild dogs (e.g. desert), or heavily modified / human impacted areas. Transient range also includes areas which have been used sporadically by dispersing animals (e.g. from collar data).

*\* The transient range category was newly defined in the 2015 workshop, but is a variation on the 'marginal' range category described for wild dogs only in 2007.*

(4) **Connecting range:**

Land where the species is known not to be resident, but which dispersing animals may use to either move between occupied areas, or to recolonise extirpated range. Such connections might take the form of 'corridors' of continuous habitat or 'stepping stones' of habitat fragments.

(5) **Recoverable range\*:**

Land where cheetah and wild dogs are currently known to be extirpated, but where habitat and prey remain over sufficiently large areas that either natural or assisted recovery of the species might be possible within the next 10 years if reasonable conservation action were to be taken.

*\* In designating areas of recoverable range, participants were asked to bear in mind that both species live at low densities and travel very widely, so they would rarely be recoverable in small areas (<3,000km<sup>2</sup>) unless very intensive management (e.g. predator-proof fencing and active population management) could be implemented.*

(6) **Extirpated range:**

Land where the species is currently extinct, and where habitat has been so heavily modified or fragmented (e.g. by cultivation or urbanisation) as to be uninhabitable by resident animals for the foreseeable future.

(7) **Unknown range:** land where the species' status is currently unknown and cannot be inferred using knowledge of the local status of habitat and prey.

