



ZIMBABWE NATIONAL LION CONSERVATION STRATEGY AND ACTION PLAN (2020-2025)



Cover: A male lion with cubs he has sired (Photo credit: Brent Stapelkamp)

Zimbabwe Parks and Wildlife Management Authority

FORWARD BY DIRECTOR GENERAL OF ZIMBABWE PARKS AND WILDLIFE MANAGEMENT AUTHORITY

Zimbabwe is privileged to be one of the few lion range states in Africa, where large areas of land which have been set aside as protected areas, still have viable, stable and growing lion populations. In some parts of Africa, lions have been completely wiped out either by hunters, or through habitat loss and other factors with the only record to indicate their existence in the past now left as anecdotal evidence. The lion is a powerful African symbol, it is a flagship species and yet its future is under threat. The conflict with local communities and the threat to livestock and human lives in many parts of the world including Zimbabwe is well documented. While its attraction in ecotourism as one of the most beautiful and graceful cats, and as a trophy animal in sport hunting, its economic benefits are huge. Its social and cultural values are an integral part of the Zimbabwean lifestyle, therefore efforts to ensure lion conservation need to be strengthened.

It is important to have a strategy that guides conservation and management of this important top predator. We have taken a lead in developing conservation strategies, which ensure sustainable use. I have no doubt that with the expertise gathered in this document encompassing the wildlife industry, technocrats, inter and non-governmental organizations, wildlife producers, etc., we will all join hands in the implementation of activities.

Collaborative work on research and monitoring of lions needs to be strengthened to ensure that adaptive management is practiced and is also based on sound scientific data. As Zimbabweans we take pride in our rich wildlife heritage, let us work together to ensure that we conserve our lions for future generations through sustainable use.

Zimbabwe through this lion strategy is once again a pacesetter in efforts to create management plans that will be incorporated into long-term strategies for biodiversity conservation.

F. U. MANGWANYA

DIRECTOR GENERAL

SUMMARY

The first ‘*Conservation and Action Plan for the lion (*Panthera leo*) in Zimbabwe*’ was developed in 2006 in response to the development of Africa wide conservation plans for the species. It has served Zimbabwe well but with increasing global and regional concerns and changing circumstances regarding the conservation of lions it was appropriate to revisit and update a National Lion Conservation Strategy and Action Plan. The major components of the earlier strategy have been brought forward, albeit in a different format, but with a greater focus of law enforcement, the extension of lion range within the country, and the recovery of some populations that have declined.

The strategy, therefore, focuses on the following long term and shorter-term goals, and five key components, in keeping with related plans for rhinos and elephants:

Long-term Vision: *Lions conserved and managed sustainably for their aesthetic, cultural and ecological values and the socio-economic development of Zimbabwe.*

Goal: (Immediate objective or purpose):

To secure and where possible, restore as many viable free ranging lion populations as possible in Zimbabwe, whilst mitigating their negative impacts and enhancing their value for the benefit of people through sustainable use.

Targets:

1. Ensure the persistence of key/core lion populations and other important populations including those of doubtful viability
2. Human and livestock loss caused by lions reduced
3. Optimise lion conservation-related net benefits to local communities/ landholders
4. Review and enhance ethical sustainable use of lion

In order to meet these goals and to effectively contribute to national policy objectives, the following five component and strategic objectives have been adopted as the primary focus for strategic action in achieving the immediate and long-term conservation of lions in Zimbabwe:

1. Protection and Law enforcement to ensure the effective security of all lion populations in Zimbabwe
2. Biological monitoring and management of lions to achieve viable populations that are within upper and lower acceptable limits to change in numbers and distribution
3. Implementing social, economic and cultural strategies to enhance the contribution of lions to rural livelihoods, protected area management and national development
4. Building conservation capacity and ensuring that sufficient and appropriately trained personnel, equipment, infrastructure and finances are mobilised, available and used efficiently and effectively to lion conservation
5. Ensuring coordination, collaboration and programme management with local, and international stakeholders to implement these strategic objectives.

These strategic components can readily be framed as objectives, and outputs with a set of necessary and sufficient activities and key performance indicators that need to be implemented to achieve the outputs and targets. These are framed at a strategic level from which more detailed annual plans that fit available resources and requirements at local or cluster levels can be developed.

An overview of the main conservation plan is provided in the following Objectives Tree. The sets of key activities for each Output are provided in Section 4.

Objectives Tree

Long-term Vision: Lions conserved and managed sustainably for their aesthetic, cultural and ecological values and the socio-economic development of Zimbabwe



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Key Components	1. Protection and law enforcement	2. Biological Monitoring and Management	3. Social, Economic and Cultural Framework	4. Building Conservation Capacity	5. Coordination, collaboration and program management
Strategic Objectives	Objective 1. Ensuring effective protection of all lion populations in Zimbabwe	Objective 2. Implementing effective biological and ecological management to achieve viable populations that are within upper and lower acceptable limits to change in numbers and distribution	Objective 3. Implementing strategies that enhance the contribution of lions to livelihoods, protected area management and national pride and development	Objective 4. Ensuring that sufficient and appropriately trained personnel, equipment, infrastructure and financing are mobilised, available and used efficiently and effectively for lion conservation	Objective 5. Ensuring effective coordination and collaboration with local, national, and international stakeholders to implement these strategic objectives,
Outputs	Output #1: Management, security and law enforcement actions to minimise, illegal losses of lions, their prey and their habitats, implemented	Output #2: Adaptive, evidence-based management to maintain viability of all lion sub-populations implemented	Output #3: Fair distribution of financial benefits from lions improved and tolerance for those living with lions increased	Output #4: Sufficient numbers of trained, equipped, motivated and effective personnel are deployed and operational	Output #5: Coordination mechanisms to assess and review adaptive lion population management and strategic planning established and operating

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ACRONYMS AND ABBREVIATIONS

CAMPFIRE	Communal Areas Management Plan for Indigenous Resources
CITES	Convention on International Trade in Endangered Species of Flora and Fauna
IUCN	International Union for the Conservation of Nature
KAZA	Kavango Zambezi Transfrontier Conservation Area
KPI	Key Performance Indicator
NDF	Non-Detriment Finding
RDC	Rural District Council
SADC	Southern Africa Development Community
SMART	Spatial Monitoring and Reporting Tool
SOAZ	Safari Operators Association of Zimbabwe
TFCA	Transfrontier Conservation Area
ZPHGA	Zimbabwe Professional Hunters and Guides Association
ZPWMA	Zimbabwe Parks and Wildlife Management Authority
ZRP	Zimbabwe Republic Police

Staff abbreviations (used to indicate responsibilities in the action plans)

DG	Director General
DDGCon	Deputy Director General Conservation
CM	Cluster Manager
AM	Area Manager
CE	Chief Ecologist
PRM	Public Relations Manager
HRM	Human Relations Manager
LC	Lion Coordinator
LWG	Lion Working Group

ACKNOWLEDGEMENTS

The support provided by the Lion Recovery Fund for the development of this conservation strategy and action plan is gratefully acknowledged, as is the contribution to its development by the participants in the consultative workshop on lion conservation and management held at Boulton Atlantica on the 12-14 of June 2019.

1. Introduction and Background

Lions have formed a powerful symbol as the ‘king of beasts’ for many cultures throughout the ages. They are now extinct in Europe, a remnant population remains in India and their numbers in Africa, their last stronghold, have declined drastically in most countries in recent decades. Four countries in southern Africa provide an exception to this trend. Lion populations are either stable or growing in Botswana, Namibia, South Africa and Zimbabwe. As a result, Zimbabwe shoulders both a national and an international responsibility to conserve its lions for the cultural, ecological, and economic benefits they provide. Given sufficient habitat, a viable prey base, and protection, it is clear that lion populations can recover remarkably quickly. Small founder populations of lions introduced to two larger well-stocked conservancies (formerly cattle ranches) in the South East Lowveld, for example, grew at more than 20% per annum over periods of 15-20 years.

Following the Rinderpest pandemic that swept through southern Africa in 1895, when both wild and domestic populations of cloven-hoofed animals collapsed, populations of large carnivores were also reduced to very low numbers. However, as both livestock and wild ungulate populations recovered, large carnivore recovery was curtailed by expanding agro-pastoralism and cattle ranching, and conflict with humans, where lions were killed. The first game reserves were established in 1928 and, even then, large mammal populations were still low and recovering. In Wankie Game Reserve (now Hwange National Park), for example, game populations were growing at about 13% per annum between 1937 and 1949¹. If a similar growth rate prevailed during the previous ten years the likely prey biomass in 1928 would have supported less than 1 lion per 100 km², compared with 4 or more per 100 km² in 2019.

National long-term data on the trends and numbers of lions in the country are not available. Information available over the last three decades indicates an overall increase in lion numbers despite marked declines in some areas. Increases have occurred with the introduction of lions to two large conservancies, namely, Save Valley and Bubye Valley. A marked decline in lion numbers occurred in the Sebungwe region, primarily in Chizarira National Park and Chirisa Safari Area as a result of declines in prey populations due to poaching.

Primary factors constraining the growth and extension of lion populations in Zimbabwe are:

- Lack of available wild habitat into which lions can expand their range due to habitat fragmentation and land use change in neighbouring areas.
- Depleted prey bases in some protected areas.
- Conflict between lions and small-scale agro-pastoralists settled on the boundaries of protected areas and impacts of retaliatory killing of marauding lions.
- Scarcity of resources to implement conservation action.

Each of these constraints provides opportunities to be tackled and the primary purpose of this lion conservation strategy and action plan is to provide a framework for achieving effective and sustainable conservation of lions in Zimbabwe.

This plan builds on the 2006 Conservation Strategy and Action Plan and includes all of the primary elements of that plan, albeit in a different format. The 2006 strategy had its origins in renewed concerns about the conservation status of the African lion and proposals for the species to be listed on Appendix I at the 13th Conference of the Parties to CITES in Bangkok in 2004. The conference recommended a detailed examination of the issues relating to the conservation of the African Lion lions through a series

¹/ Ted Davison, the first Warden, recorded the numbers of “head of game” seen per mile walked on his patrols in the park and included an annual figure in his reports for years 1937-1949. These figure increased at an annual rate of 13%.

of regional workshops. IUCN followed through on the recommendation and, together with other stakeholders organised a workshop for West and Central African countries in 2005 and another for East and Southern Africa countries in Johannesburg in 2006. A major recommendation of the workshop was that lion range states develop and implement national lion management plans. The Zimbabwe Parks and Wildlife Management Authority, together with IUCN, convened a workshop in October 2006 to develop a lion conservation strategy and action plan that has been in force since then.

Since 2006 there have been further failed proposals to list the African lion on CITES Appendix I and both the United States and the European Union have developed more stringent domestic measures surrounding the import of lion trophies from Africa. They require range states to provide evidence that trophy hunting is not detrimental to lion populations – the Non-Detriment Finding (NDF). The United States of America, in addition, requires that states provide evidence that that trophy hunting of lions enhances the conservation of the species in the wild. These international pressures have served to increase the amount and depth of research on lion ecology and on monitoring the impacts of trophy hunting. They have also served to stimulate the ongoing development of trophy hunting regulations and practices that minimise, if not remove, adverse impacts of trophy hunting on lion population dynamics.

Given the developments in lion research and increasing concerns, both national and international, regarding the conservation and management of lions the ZPWMA, with support from the Lion Recovery Fund, convened a stakeholder workshop in June 2019 to revisit and update the national lion conservation strategy and action plan. The proceedings of the June workshop were distributed in early August 2019.

1.1 Numbers, distribution and trends of lions in Zimbabwe

Recent estimates of the four regional populations indicate a current population of nearly 2,000 lions (Table 1). The lion population in Hwange NP is considered to be stable and this probably applies to that of Northwest Matabeleland. However, this population is contiguous with that in neighbouring Botswana and trends in that population may influence those in the Zimbabwe component.

Table 1. Estimates of the extent of lion range and the number of lions in four regions in Zimbabwe. (Source: NDF 2016)

Region	Area (km ²)	Estimated Number of Lions	Lions per 100 km ²
Northwest Matabeleland	24,863	737	3.0
Sebungwe	6,953	72	1.0
Lower Zambezi Valley	7,491	212	2.8
South East Lowveld	12,335	896	7.3
Total	51,642	1,917	2.7

Note: The figures for Lower Zambezi Valley cover only part of the overall protected area of ~ 12,000 km²

The number of lions in the Sebungwe has declined with increasing habitat loss resulting from expanding settlement, increasing human population and agriculture in the region, encroachment into protected areas and depleted prey populations in protected areas. The human population in the districts covering the Sebungwe grew from 55,000 in 1950s to 750,000 in 2013 as result of immigration and following a boom in cotton production in the 1980s (Cumming and Lynam 1997). Wildlife habitat and wildlife numbers in both protected and CAMPFIRE areas recently declined markedly as reflected in the 75% decline of elephant from ~ 14,000 in 2006 to 3,500 in 2014. In the mid 1970s the Sengwa Wildlife Research Area (in the southern sector of Chirisa Safari Area) held a pride of at least 25 lions at a density

of 14 lions per 100 km² (Cumming 1975, and unpublished data). A recent camera trap survey found a single lion in Chirisa Safari Area – the result of uncontrolled bushmeat poaching and depleted prey populations (Unpublished Report). With appropriate management the protected areas of the Sebungwe provide a clear opportunity to recover lion populations in this region.

Gonarezhou National Park, a core protected area of the South East Lowveld, is experiencing increasing large herbivore populations and along with increasing lion numbers. The introduction of lions into the Save Valley Conservancy and Bubye Valley Conservancy resulted in these populations growing at more than 20% per annum over a period of two decades, resulting in the largest regional population on the country.

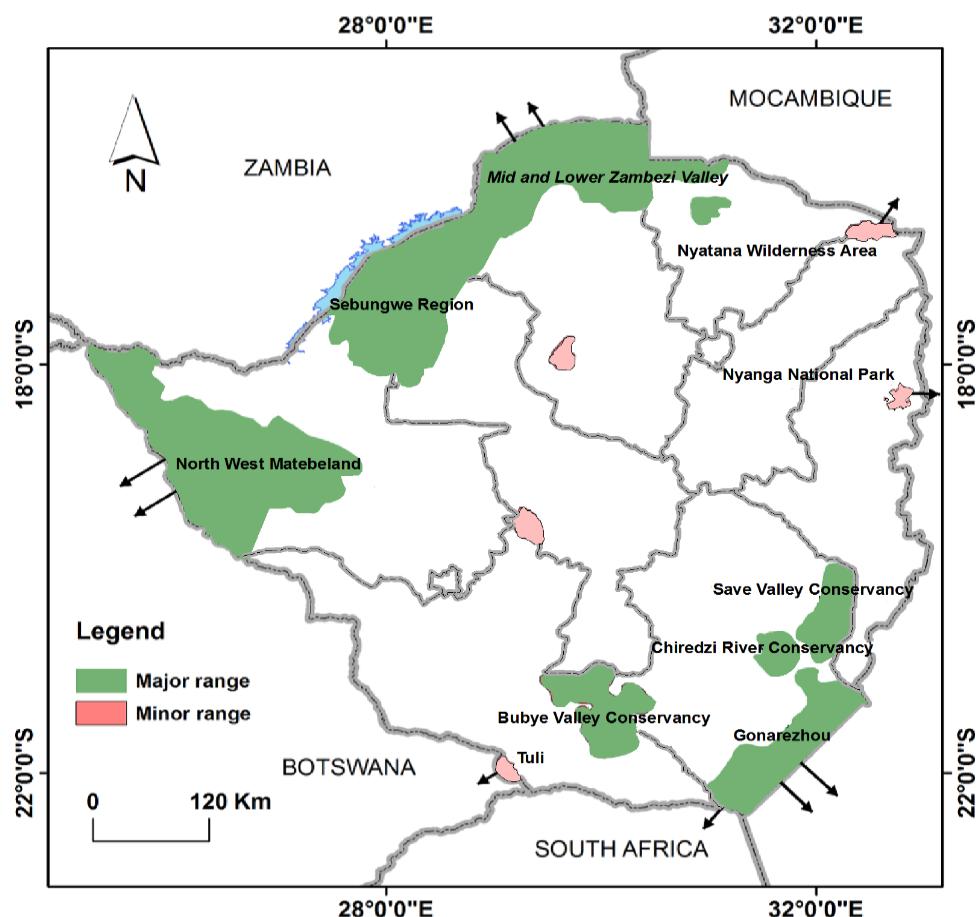


Figure 1. The current major and minor ranges of lions in Zimbabwe

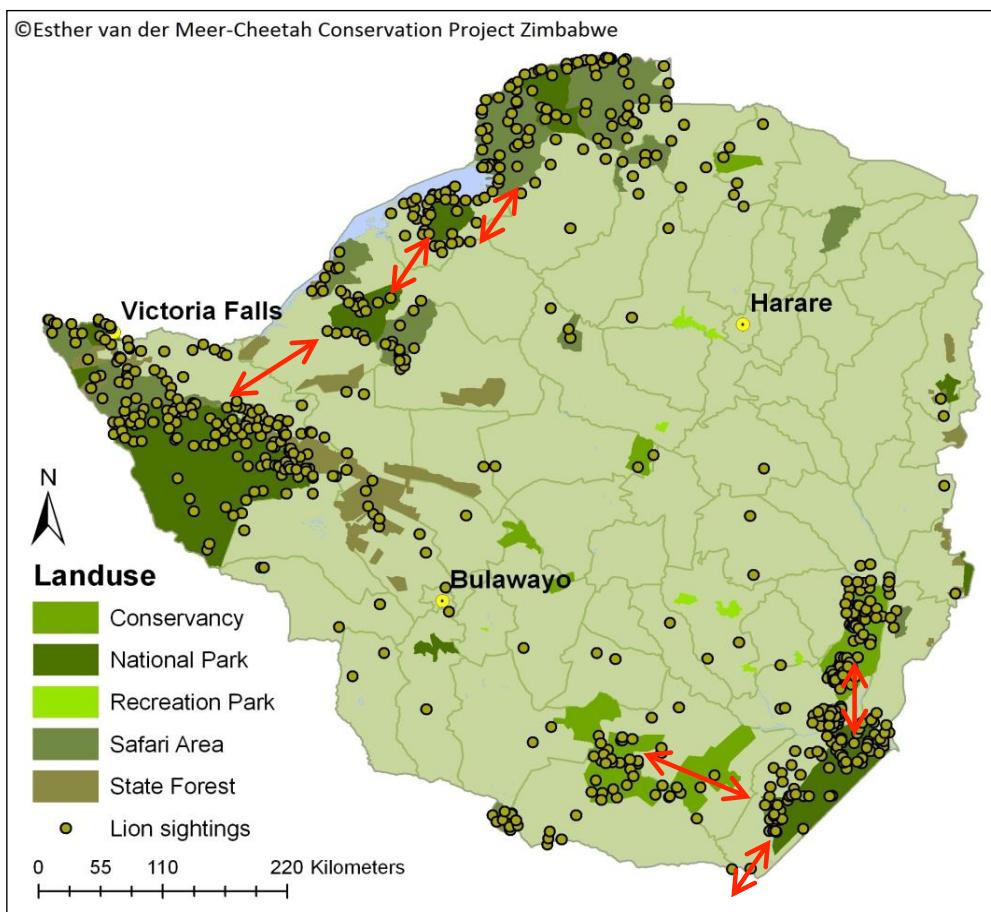


Figure 2. Distribution of lion sightings in Zimbabwe and an indication of potential corridors (red arrows) (Source: Lion NDF, 2016)

1.2 Targets for lion distribution, numbers, and connectivity in Zimbabwe

The recent map of lion sightings in Zimbabwe (Fig. 2) reveals four clusters of lions, one in Northwest Matabeleland, a second with few sightings in the Sebungwe south of Lake Kariba, a third in the Mid-Zambezi Valley, and a fourth in the South East Lowveld. Options for extending viable populations of lions to other areas in the country are limited. The open unmanaged populations in the Northwest and the Lower Zambezi Valley appear to be stable. The lion population in the South East Lowveld has grown rapidly although it has recently been curtailed in the fenced Bubye Valley Conservancy. As indicated above, the Sebungwe lion population is depleted but with improved management of its four protected areas, an opportunity exists for recovery of lion numbers.

Opportunities to maintain connectivity between the three northern lion populations exist but may rapidly close and will require urgent attention. Connectivity between the presently somewhat isolated populations of Bubye Valley Conservancy and Gonarezhou National Park may be achieved through the inclusion of lions in Nuanetsi Ranch and the creation of linking corridors. Similarly, options still remain to link the Save Valley lion population to Gonarezhou and through to Kruger National Park via the Sengwe-Tshipise Wilderness Corridor (Fig. 1).

The question of establishing Thresholds of Potential Concern, or setting limits to change, for lion populations in the country was discussed at some length during the June workshop. The general consensus was that open lion populations, those in large unfenced areas, did not need to be managed and that populations should be allowed to fluctuate. Population growth in fenced populations, where

dispersal and density dependent regulation is likely to be compromised, may need to be controlled and guidelines for this eventuality need to be developed. While the focus has tended to be on the management of lion population growth and perceptions of ‘overpopulation’, thresholds and specific action plans also need to be considered for populations that may be declining. In several cases lion population declines have been associated with declining available prey and attention needs to be directed at dynamics of preferred prey species namely, buffalo, giraffe, wildebeest and zebra (Hayward and Kerley, 2005). Disease issues relating to lions have been neglected but with increasing rural domestic dog populations and the incidence of rabies and distemper, attention will need to be directed at vaccination programmes in areas surrounding protected areas.

1.3 Implementation of the Strategy and Action Plan

1.3.1 Institutions and Roles

i) Zimbabwe Parks and Wildlife Management Authority

ZPWMA through the Parks and Wildlife Act, Chapter 20: 14, has a national mandate to manage wildlife in the country. By the same instrument it is appointed the lead agency in the conservation and management of lions, i.e. protection, monitoring, research, and sustainable use. It is also responsible for establishing collaborative arrangements with other governmental and non-governmental organisations to conserve and manage lions in the country.

ii) Intra-governmental organisations

ZPWMA works jointly with security organisations such as Zimbabwe Republic Police (ZRP), Zimbabwe Defence Forces, and the President’s Office to protect lions, curb illegal killing, and control trade in lion products. ZPWMA works with these organisations through the Joint Operations Command as well as through direct bilateral arrangements with them and the Judiciary. ZPWMA also works with Customs at ports of exit and entry to improve control of illegal movement of wildlife products across boundaries.

iii) Inter-governmental organisations

ZPWMA works closely with sister organizations from neighbouring countries such as Zambia, Mozambique, South Africa and Botswana in wildlife protection, information sharing and lion monitoring through bilateral and regional arrangements (SADC). At international levels, ZPWMA is both the CITES Management Authority and CITES Scientific Authority and works with other countries through CITES and other inter-governmental agreements to control trade in lions and to protect lions. Both the Northwest Matabeleland and the Sebungwe regions fall within the Kavango-Zambezi Transfrontier Conservation Area (KAZA) and involve collaboration in the conservation and management of large carnivores within this framework. ZPWMA is also working with the Convention on Migratory Species and their African Carnivore Initiative that seeks to establish a task force to examine the illegal trade in carnivore products.

iv) Non-governmental organizations

Both local and international organizations partner with ZPWMA in lion management. They mobilize resources for protection, research and monitoring, and assist directly with lion monitoring and research programmes, information sharing, and advocacy.

v) Private sector

The corporate community participates in managing lions mainly through resource mobilization. Safari operators report poaching and assist in anti-poaching patrols. Through lease and trophy fees they

provide revenue to ZPWMA. They help develop infrastructure, provide funds to communities and supplement diets with meat from trophy animals.

Zimbabwe subscribes to the principle of sustainable utilisation of wildlife resources including the sport hunting of lions whereby offtakes are adaptively managed and monitored through a participatory and science-based process.

vi) Local Communities

Local communities are involved in lion management in CAMPFIRE areas, through sharing information, advocacy and wildlife protection. They report incidents of human-lion conflict and in some areas are actively engaged in “Lion Guardian” activities to minimise impacts of lions on their livestock.

1.3.2 Funding and resource mobilisation

Adequate and sustainable funding and provision of other resources are important to effective protection of lions. Resources are mobilized from within ZPWMA, by the private sector, and by intergovernmental and non-governmental organizations. Partnerships between ZPWMA and other stakeholders are some of the innovative measures being developed to secure funding for lion conservation. There may be a need for the Government to provide additional support to the conservation of lions and their prey base, particularly given the current levels bushmeat and commercial poaching, and anti-hunting sentiment in North America and Europe.

1.3.3 Coordination

i) ZPWMA

ZPWMA takes the lead in coordinating other institutions in lion conservation activities in the country. It will convene and chair the proposed Lion Management Committee meetings. Similar meeting are scheduled for rhinos and elephants and the possibility of amalgamating these meetings will be explored.

ii) Lion Coordinator

This Action Plan provides for the appointment of a Lion Coordinator within ZPWMA who will be responsible for coordinating lion conservation and management activities in the country. The Lion Coordinator will liaise with the International Conventions Office in ZPWMA on international matters affecting lion conservation and also liaise with the CAMPFIRE office for matters affecting the conservation of lions in CAMPFIRE districts. The draft Terms of Reference for the Lion Coordinator are provided in Annex 9.7.

iii) Lion Working Group

As reflected in the Proceedings of the June 2019 Workshop a Lion Working Group will be established to work on specific issues relating to lion conservation in the country and to annually to review progress in implementing the Action Plan. The National Committee will document that progress in implementation and any suggested revisions to the Action Plan and make their report available to the Director General of ZPWMA.

The Lion Working Group will meet at least twice in a year to review the implementation of the national plan, each regional plan, and local plans. The Working Group will strengthen links with various bodies at national and regional levels including within the TFCA framework. ZPWMA will convene and chair the Working Group meetings. The draft Terms of Reference for the Lion Working Group are provided in Annex 9.5.

1.3.4 Monitoring and evaluation

Monitoring the implementation of this Action Plan will be done using the Key Performance Indicators contained in Section 4. Monitoring the implementation will be done and reported on by the Lion Coordinator on a quarterly and annual basis. A major evaluation of progress will be done every two years and in 2025. Monitoring and evaluation will be done at each local area level, at the Cluster level, and at the National level.

1.3.5 Links with continental and regional initiatives

This Action Plan recognizes the existence of the East and Southern African Lion Action Plan, the KAZA Carnivore Conservation Strategy (that includes northwest Matabeleland and the Sebungwe), and initiatives that are currently taking place at a continental level, including by the African Union. These include the development of the Common Strategy on Combating Illegal Exploitation and Illegal Trade in Wild Fauna and Flora in Africa. At the SADC level initiatives involve developing a Plan of Action and implementing the SADC Protocol on Wildlife Conservation and Law Enforcement. This Action Plan will be reviewed periodically in the light of developments that are taking place in the SADC Region, Africa and beyond.

1.3.6 Regional strategies within Zimbabwe

The devolution of management oversight to Cluster levels, with more detailed action plans within the national plan, provides the basis for effective adaptive management at regional and local levels. An example of how this might be devolved to the regional level is provided in Annex 1.

1.3.7 Protecting lions for the future

Poaching and the illegal wildlife trade are serious concerns for all lion range states. Although the 2006 Conservation Strategy and Action Plan for Lion in Zimbabwe did not need to prioritise law enforcement, protecting the habitats and prey base for lions, and minimising the loss of lions to an increasing threat of trade in lion body parts, are now an important, if not primary, component of this Action Plan.

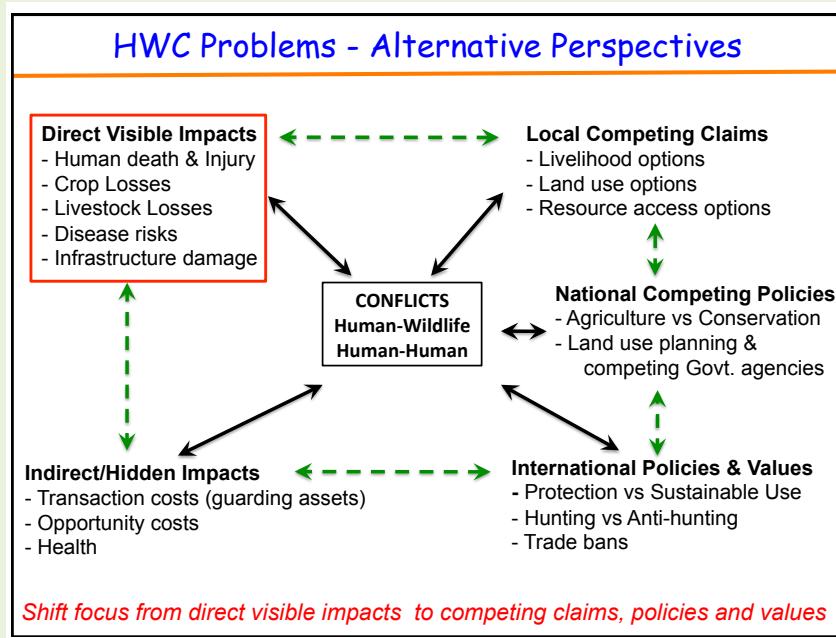
1.3.8 Human-lion conflict

As Zimbabwe's human population grows, lions are being restricted to smaller areas and as human populations and settlement increase on the immediate boundaries of protected areas lions are increasingly likely to threaten livestock and occasionally, human lives. As a result, in many rural areas where lions occur in Zimbabwe, human-lion conflicts are likely to increase, creating negative attitudes towards the conservation of lions. These conflicts often occur among the poorest of rural farmers, which complicates the issue in social and economic terms. Unresolved conflicts stimulate poaching or retaliation. Poachers or retaliators can be seen as "local heroes" because they remove, the source of the conflict. A major challenge for lion conservation is keeping human-lion conflicts to a minimum.

Developing a Social, Economic, and Cultural Framework in which lion conservation takes place has been identified as a Key Component of this Action Plan in an effort to address and minimise human-lion conflicts and build an appreciation of the importance of conserving lions.

BOX 1: Towards a Comprehensive Strategy to Reduce Human-Lion Conflict

Conflict between people and wild animals tends to focus on the immediate and direct visible impacts of a wild animal on a person or on his/her belongings, such as domestic livestock or crops or on risks of contacting disease. While it is appropriate to minimise such direct conflicts it is also important to examine the wider circumstances and related issues that involve competing claims, policies, and values that contribute to the problem. The following diagramme provides a summary overview of the issues and complexities involved.



While lions do occasionally attack and injure or kill people, conflict between humans and lions most commonly revolves around the loss of livestock to predation by lions and other large carnivores (Kuiper et al 2015, Loveridge et al 2017). Measures to effectively reduce such losses have recently been developed and include herding practices, the use of predator proof mobile bomas, the positioning of flashing lights to keep predators away, and using vuvuzelas (trumpets) to chase them away.

However, attention also needs to be directed to issues relating to land use planning, competing claims and policies, and dealing with international pressures that bear on the conservation, management and sustainable hunting lions, the equitable distribution of benefits that may be derived from lions through tourism.

2. Logic and Structure of the Plan

The strategic framework is based on the Logical Framework structure and the development of clearly stated objectives, outputs and the necessary and sufficient activities (or actions) required to achieve the outputs within a specified time frame. The structure requires a set of key performance indicators that are intended, as far as possible, be SMART, i.e. Specific, Measurable, Achievable, Realistic and Time-bound, and fit the usual requirements of results-based management. The five key components of the plan are:

1. Protection and law enforcement
2. Biological monitoring and management
3. Socio-economic and cultural sustainability
4. Building conservation capacity
5. Coordination, collaboration and programme management

Table 1. Structure of the Lion Strategic Plan

Long-term Vision	The long-term vision of the 2006 plan has been retained the draft and remains applicable to the period of this plan
Targets	The three targets included in the 2006 plan are retained
Key Components	The five key components are the primary themes or headings of the strategy under which the framework is organised. The seven Outputs and Responsibilities of the 2006 plan fall within the five components
Strategic Objectives	The strategic objectives reflect briefly but more explicitly the policy intention for the respective components
Outputs (expected outcomes)	The outputs are statements that reflect the expected results that will be realised during the time frame of the plan. Outputs are therefore expressed in the past tense.
Key Activities (Actions)	Key activities represent the necessary and sufficient actions that need to be completed to achieve the Outputs. They are those that are vital to achieve the Outputs and are those on which the major emphasis should be placed. <i>National level Activities can be cast as Outputs at sub-regional level, with more detailed and relevant time specific activities, KPIs, and budgets, at that level.</i>
Key Performance Indicators (KPIs)	The Key Performance Indicators (KPIs) provide a basis on which to measure and monitor the success or otherwise of the Strategic Objectives, Outputs, and Activities.
Means of Verifying the KPIs	It is clearly necessary for the verification and monitoring of KPIs that the manner in which they can be tracked and verified need to be clearly established. Equally important is the need for monitoring protocols to be standardised across local and Cluster levels so that national and sub-regional level KPIs and statistics can be compiled. This will then allow valid comparisons of performance across Clusters and local areas to be made
Implementation Strategy	As outlined in the previous section the ZPWMA will interact and collaborate with a wide range of agencies and stakeholders in the implementation of this plan

The top-level strategic components of the Action Plan encompassing the Long-term Vision, Targets, Key Components, Strategic Objectives and Outputs are summarised on page 17 in Section 3 below. The top-level components of the plan are then followed by a set of tables in Section 3 (page 10) that provide action plans for the expected Outputs (or outcomes) of each the five strategic components of the plan. The Activities and KPIs within these tables are set at a national strategic level. They will be taken up, as appropriate, during the development of Regional Action Plans for each of the four regional elephant populations in the country. **Activities** listed at the national level will, for the most part, form **Outputs** at the regional or local area level. These Outputs will, in turn, generate more detailed regional and local specific activities and actions with specific KPIs and means of verification.

3. Vision, Targets and Key Components

Long-term Vision: Lions conserved and managed sustainably for their aesthetic, cultural and ecological values and the socio-economic development of Zimbabwe

Goal: (Immediate objective or purpose):

To secure and where possible, restore as many viable free ranging lion populations as possible in Zimbabwe, whilst mitigating their negative impacts and enhancing their value for the benefit of people through sustainable use.

- Targets:
1. Ensure the persistence of key/core lion populations and other important populations including those of doubtful viability
 2. Human and livestock loss reduced
 3. Optimise wildlife conservation-related net benefits to local communities/ landholders
 4. Review and enhance ethical sustainable use of lion

Key Components	1. Protection and law enforcement	2. Biological Monitoring and Management	3. Social, Economic and Cultural Framework	4. Building Conservation Capacity	5. Coordination, collaboration and program management
Strategic Objectives	Objective 1. Ensuring effective protection of all lion populations in Zimbabwe	Objective 2. Implementing effective biological and ecological management to achieve viable populations that are within upper and lower acceptable limits to change in numbers and distribution	Objective 3. Implementing strategies that enhance the contribution of lions to livelihoods, protected area management and national pride and development	Objective 4. Ensuring that sufficient and appropriately trained personnel, equipment, infrastructure and financing are mobilised, available and used efficiently and effectively for lion conservation	Objective 5. Ensuring effective coordination and collaboration with local, national, and international stakeholders to implement these strategic objectives,
Outputs	Output #1: Management, security and law enforcement actions to minimise, illegal losses of lions, their prey and their habitats, implemented	Output #2: Adaptive, evidence-based management to maintain viability of all lion sub-populations implemented	Output #3: Fair distribution of financial benefits from lions improved and tolerance for those living with lions increased	Output #4: Sufficient numbers of trained, equipped, motivated and effective personnel are deployed and operational	Output #5: Coordination mechanisms to assess and review adaptive lion population management and strategic planning established and operating

4. Action Plans

4.1 Protection and Law Enforcement

Objective: Ensuring effective protection of all lion populations in Zimbabwe

Output: Management, security and law enforcement actions to minimise, illegal losses of lions, their prey and their habitats, implemented

KPI: Illegal killing of lions maintained at less than 5% in all populations and less than 5% of lion habitat encroached by settlement by 2025

MV: National level monitoring data on illegal activity, including trophy hunting, successful convictions, carcass and poisoning records, status and trends of all lions populations, verified data on extent of encroachment, if any, and area of available habitat.

NOTE: Several of the activities listed here are part of the National Elephant Management Plan and lions, and other key species such as rhino, would be included within the purview of the activities indicated by the National Elephant Management Plan (NEMP).

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Ensure full compliance with hunting regulations, guidelines and quotas set and close loopholes in quota setting, quota transfers, and ageing of trophies	All Safari Operators and Professional Hunters complying with hunting regulations and guidelines No incidents of improper changes in quotas No transfers of quotas between hunting areas At least 90% of trophies at or above acceptable age	Records of non-compliance and penalties enforced Records of any changes in quotas and transfers Annual assessment of lion trophies	Immediate and ongoing	ZPWMA
2. For each key population establish a highly trained rapid response anti-poaching unit for deployment to areas under threat (<i>NEMP</i>)	1. An equipped rapid response unit established and operating jointly with ZRP in each region by June 2020.	Inception report for each unit Monthly reports of operation from each unit Number of joint operations	By June 2016	ZPWMA / ZRP DG, DDGCon, CMs
3. Appropriate informer systems established and supported at national, regional, national and local levels (<i>NEMP</i>)	1. An active informer system/network operating within each region at both regional and local levels by Jan. 2020 2. National level informer system targeting middle men and higher crime syndicates operating by Jan. 2020	Operational reports Records of arrests and successful prosecutions resulting from informer reports Records of payments for information	By January 2020	DG, ISM, CMs

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Improve investigation and prosecution of crimes through collection and preservation of evidence, ballistics, and poison (policy, analysis and guidelines) evidence, professional prosecution of cases, provide information to legal profession (<i>NEMP</i>)	1. At least two of law enforcement staff trained in scene of crime collection and preservation of evidence, ballistics evidence, etc. in each area/station level 2. Percentage of investigations resulting in successful prosecutions from each region greater than in 2019 3. Monthly liaison sessions on wildlife crime and law enforcement held with members of the judiciary	Staff training records Monthly reports Court records Minutes of meetings with judiciary (prosecutors and magistrates)	Immediate and ongoing	ISM, CMs, AMs
5. Set up and maintain national and local intelligence databases and promote the use of SMART (<i>NEMP</i>)	1. National, regional and local databases recording and analysing illegal activity (nature, time and locality of activity and profiles of those involved if known) – using SMART	Inspection of operating SMART databases	Immediate and ongoing	ISM, CMs, AMs
6. Enhance international and transboundary collaboration in law enforcement (<i>NEMP</i>)	1. Quarterly meetings on law enforcement collaboration and activities between law enforcement agencies of neighbouring countries established at regional / transboundary park level by Mar. 2020. Broader collaboration with Interpol, TRAFFIC, and other international law enforcement entities	Minutes of meetings Record of joint cross border law enforcement activities Records of participation in workshops,	Mar. 2020 Immediate and ongoing	DG, CMs, ISM, AMs, TFCA Coordinator
7. Enhance social (community) involvement in law enforcement through incentive schemes and introduction of hotlines and toll-free lines for reporting wildlife crime (<i>NEMP</i>)	1. Incentive schemes (see Section 4.3) that encourage the public and members of rural communities to contribute to law enforcement (e.g. through informer hotline) established in each region 2. Larger number of incidents of community contribution to law enforcement (e.g. whistle blowers) by Dec. 2020 3. Number of hotlines established and assessment of their performance	Record and analysis of operating incentive schemes and hotline reports Record and analysis of performance of hotlines	Immediate and ongoing	CMs and AMs
8. Remove/Eliminate illegal settlement and their impacts in all wildlife areas (<i>NEMP</i>)	Illegal settlements reduced to less than 5% of wildlife areas by 2024 (i.e. state and community protected areas)	Records and maps of illegal settlements and of wildlife land recovered	Ongoing to 2024	DG, AMs, CE, CAMPFIRE Assoc., RDCs
9. Review, amend and enforce a full set of statutory regulations for hunting lions on park boundaries	Revised statutory instruments and guidelines completed and enforced by March 2020			

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
10. Establish an online database under ZPWMA to monitor all aspects of carnivore hunting	Online database operational and in use by Dec. 2019	Inspection of working database with up to date records.	By Dec 2019	DG, DDGCon, LC
11. Improve protection of lion prey base and revise/enforce regulations on the use of snares	Update regulations on the use of snares in place by June 2020 and being implemented by law enforcement agencies and judiciary	Copy of updated regulations and court case evidence of their use	By June 2020	ISM
12. Collect and submit tissue samples for genetic and isotopic analysis	Tissue samples collected and submitted for analysis with immediate effect	Record of tissue sampled collected and results of analysis	Immediate and ongoing	LC, CE

An example of a National level **Activity** being used as an **Output** at the regional level is provided below for Activity #4 from the table above. This provides the basis a national strategic activity to be defined more specifically to suit the local situation and in much greater detail at this level than is appropriate in the national Action Plan.

LAW ENFORCEMENT (at REGIONAL or LOCAL LEVEL)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative Costs	Lead agency
4. Appropriate Informer network, Investigation and Intelligence system strengthened	1. Recruit informers and contacts 2. Maintain hotline for whistle-blowers 3. Procurement of two vehicles and two motor bikes . Recruit and train investigators (6) and deploy strategically . Constant liaison with informers . Standardise rewards to informers	1. Number of arrests and successful convictions based on information from intelligence system 2. Number of incursions reported on/reacted to by local communities 3. Number of reports per informer leading to arrests and convictions	Validation of informer record Records and reports of training sessions Whistle-blower reports	Within one year and then ongoing	Vehicles Reward payments Telecommunications equipment Vehicle maintenance and fuel	ZPWMA

4.2 Biological Monitoring and Management

Objective: Implementing effective biological and ecological management to achieve viable populations that are within upper and lower acceptable limits to change in numbers and distribution

Output: Research, monitoring and adaptive, evidence-based management to maintain viability of all lion sub-populations implemented

KPIs: Lion populations within each sub-region are genetically and demographically viable and within the preferred upper and lower limits in 2024

MV: Results on population trends from agreed national monitoring plan and analyses of changes in population structure and viability,

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Monitor trends in all lion populations in accordance with a national monitoring plan	National lion monitoring plan developed and in place by March 2020 and in use in at least two areas by June 2020	1. Survey and patrol reports 2. Completed survey results for areas in which surveys took place	Monitoring plan by Mar 2020 and used by Jun 2020	DG, LC, CE, CMs, AMs
2. Use research findings, expert opinion and informed public opinion to establish <i>thresholds of potential concern</i> (TPCs) and associated indicators to initiate management action in respect of changing trends in lion populations, other large carnivores, and their prey	Thresholds of potential concern (TPCs) established for at least four key areas / habitats and selected indicators of change monitored every two years	Documented TPCs by Dec 2020 and their use in the selected areas by Dec 2022	By Dec 2020	LC, CE and CMs, and Conservancies
3. Carry out appropriate management actions when lion populations pass, or are projected to pass, TPCs	Management actions taken in relation to TPCs being passed (i.e. above or below threshold). (e.g. capture and translocation, changing hunting quotas, hunting moratorium)	Records of management actions considered, actions taken and results	Ongoing	DG, DDGCon, LC, CE, Conservancies
5. Monitor trophy quality and adjust quotas to minimise adverse impacts on lion population viability	1. Database and field recording protocols and forms established and operating by Dec. 2020 2. Annual analysis of trophies taken as % of quota, and trend in trophy quality and ages of trophies	Consolidated annual records of trophies taken Annual report of trophy quality by region for quota setting workshop	Dec. 2020, then annual and ongoing	DC, CE, CMs, SOAZ, ZPHGAZ, CAMPFIRE

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
6. Define current lion range and explore options for extending range, and recovery of lions, and maintaining connectivity between fragmented populations	1. Map of current lion range based on survey results and other information available by Oct 2020 2. Estimates every two years of range expansion / contraction for each region based on all available information 3. Use and effectiveness of corridors assessed from ground sightings and reports, movements of satellite collared animals	Current estimate of lion range and subsequent bi-annual estimates and associated maps Reports on lion locations in database from ground sightings, spoor transects, citizen science reports, satellite collar records.	Initial map by Dec. 2020 Immediate and assessments every 2 years	DC, CE, CMs, AMs in conjunction with SOAZ, ZPHGA and CAMPFIRE Association
7. Reporting to international monitoring systems (e.g. CITES, CMS)	Timely reports submitted as required with copies to regional and national levels	Copies of reports lodged at regional and national levels	Annual or as required by international obligations	DDGCon
8. Recognising the sensitivity of lion population dynamics to interventions (legal and illegal), use modelling to explore potential outcomes of alternative management strategies (e.g. Management Strategy Evaluation – MSE, including the extension and connectivity between lion populations in Zimbabwe and neighbouring countries	Number of instances in which models were used to project alternative outcomes of lion management actions and policies Potential use of MSE explored by June 2020 and if appropriate introduced in Dec 2020	Management and associated modelling reports	Ongoing	CE, Researchers and Stakeholders
9. Develop a Citizen Science program	Platform and database for citizens to submit records of carnivore sightings and photos in place and being used	Records in Citizen Science database	Immediate and ongoing	LC and Lion Working Group
10. Develop specific lion management plans for each population and review these at annual meetings and workshops	1. Specific lion management plans for each population in place by June 2020 2. Priority areas in which lion populations may be recovered identified and management plans developed and actioned by June 2020	Area specific lion management plans		LC and Lion Working Group
11. Enhance the prey base for lions				

4.3 Social, Economic and Cultural Framework

Objective: Implementing strategies that enhance the contribution of lions to livelihoods, protected area management and national pride and development

Output: Fair distribution of financial benefits from lions improved and tolerance for those living with lions increased

KPIs: 1. Annual assessment of lion derived benefits reveals that they are increasingly being dispersed more equitably between deserving stakeholders and the contribution to national development is assessed. 2. Trends in number of incidents of human-lion conflict decline annually

MV: Report on the annual assessment of the distribution of revenues from consumptive and non-consumptive use of lions of lions and record and annual analyses of Human-Lion Conflict incidents.

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Provide incentives and promote partnerships and joint venture opportunities to strengthen lion conservation, including across land use boundaries	1. Policy instruments that demonstrate and establish incentives to conserve elephants 2. Improved levels and growing trends of private and community investment in lion conservation measures 3. Number of poaching incidents/number of arrests based on prior information and leads from communities / land holders	Documented policies and list of operating partnerships / joint ventures that promote lion conservation and management Record of investments in lion conservation measures assembled by lion coordinator		DG, CA, RDCs, Private sector
2. Explore full range of Public-Private-Community Partnership to enhance management of both public and private protected areas	A full analysis of partnership options completed by June 2020 Development of policies for implementation	Report on options for PPCPs for public and private protected areas Policy documents	Analysis of options by June 2020 and ongoing policy development	DG, DDGCon, LC, Lion Working Group
2. Explore additional ethical lion-based tourism and sustainable utilization opportunities	Higher number of lion-based tourism and / or sustainable use projects established (e.g. PPCPs)	Record of projects initiated and their success rates	Ongoing	DG, CA, LC, RDCs, Private sector
3. Facilitate the transparent distribution of the benefits and costs of lion conservation and management	Policy instruments adopted that result in more transparent and equitable benefit distribution than benchmark assessed in 2019	Benchmark data and annual record of extent and distribution of lion derived benefits (revenue, development projects, products received by beneficiaries) and costs of lion conservation	Ongoing	DG, CA, LC, RDCs, Private sector

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Implement effective techniques and land use strategies, and protocols to mitigate human-lion conflict: - Integrated land use planning - Education and awareness - Accountable incident reporting, data collection and analysis - Community driven tactical interventions. - Social security, tolerance funds, payments for Ecosystem Services	1. Higher levels of investment (funds and manpower) provided for mitigating human lion conflict by ZPWMA, communities and partners 2. Protocols for land use and HLC developed and implemented by June 2020 3. Declining trends in incidents of HLC 4. Lion distribution extended in community-based conservation areas by 2024	Records of human-lion conflict incidents (in HLC Database) Research report on strategies and protocols to develop wildlife-based land use system and mitigate HLC Records of lion distribution	Protocols developed by June 2020 and ongoing Research report by Dec. 2020	DG, LC CA, RDCs, Traditional Leaders, Private sector
6. Include information on lions and their conservation in school curricula and promote environmental education in rural areas adjacent to key lion populations	1. Number and quality of lion information packages developed and delivered to schools 2. Proportion of schools in, or neighbouring, lion areas receiving and using information on elephants	1. Information packages developed 2. Reports of delivery and use of lion conservation information packages	By June 2020 and Ongoing	ZPWMA Extension and Interpretation, NGOs, Ministry of Education
7. Develop and implement an effective communication strategy for local, regional and international audiences	Information strategy developed and launched by June 2016	Information strategy document	By June 2020 and ongoing	DG, PRM
8. Review and implement policy on captive lions	Review completed by July 2020 and updated policy completed by Dec 2020	Report and policy documents	By Dec 2020	DG, DDGCon, LC
9. Review the impact of policy disincentives (e.g. SI 26, investment policies) on the conservation of large carnivores and their contribution to national development	Review completed by March 2020	Review report	By Jun 2020	DG, LC, Consultant
10. Promote/publicise positive examples of best practice in lion conservation and management	Number of examples publicised	Record of articles publicised	Ongoing	ZPWMA

4.4 Building Conservation Capacity

Objective: Ensuring that sufficient and appropriately trained personnel, equipment, infrastructure and financing are mobilised, available and used efficiently and effectively for lion conservation

Output: Sufficient numbers of trained, equipped, motivated and effective personnel are deployed and operational

KPI: Law enforcement, monitoring and research staff are trained equipped and deployed at levels that enable them to implement this action plan as specified in the previous three components

MV: KPIs for Components 1, 2, 3, and 5 are being met, individual staff training records, equipment registers, vehicle and staff deployments for lion conservation.

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Analyse current lion conservation capacity in ZPWMA, Forestry Commission, NGOs and Private Sector, and identify needs	Capacity assessment and needs report completed by June 2020	Capacity assessment report	By June 2020	ZPWMA, LWG
2. Secure funding to support the implementation of the lion conservation and management strategy	1. Funds and allocated budget for lion conservation meet annual requirements for effective conservation as measured by KPIs for activities 3-8 below and those of Components 1, 2, and 3 2. More than 75% of revenue derived from lion channelled into lion conservation and management	Record of funds available (USD) and investment by ZPWMA, Private sector, NGOS, and CAMPFIRE in lion conservation measures (Compiled annually by Lion Coordinator)	Ongoing	DG, LC
3. Establish sustainable funding programs to build and maintain necessary human resources to meet lion conservation objectives	1. Manpower density for protection of lions (No. of km ² /operational field person) 2. Level of effective deployment of field staff (e.g. record % of available man days spent on patrol in the field - see example of records envisaged under Section 8 Notes on monitoring, page 25)	Consolidated record of number of field personnel and days operational (law enforcement, research and monitoring, elephant management) for each area in the lion range compiled and reported on at annual planning meetings Records of vehicle months, VHF radio operation, fully functional stations, operating research facilities, compiled and consolidated at station, area and regional levels and reported on to the Lion Management Committees bi-annually	By June 2020 Immediate action for some key areas (e.g. Sebungwe and Zambezi Valley) and by June 2020 for all regions	DG, DDGCon, CM, LC

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Initiate and/or maintain continuity in research and monitoring necessary for the conservation and adaptive management of lions and their prey	1. Number of research programs 2. Research-person days spent on monitoring / assessing lion populations in relation to TPCs 3. Research person days spent on monitoring lion population parameters in each population/region	Research reports and papers on lion conservation and management	Ongoing	DDGCon, CE, LC
5. Strengthen research capacity in ZPWMA and collaborate with other research institutions	1. Number of researchers (internal and external), budgets, equipment, vehicles, and active research programmes increased by more than 25% by Jul 2020 and 50% by July 2021	Staff register, budget allocations, Asset register, research permits issued, MOUs with collaborators, reports and published papers on lion conservation and management	Immediate and ongoing through 2019 and 2024	DDGCon, CE, LC
6. Establish training and in-service retraining of personnel in law enforcement, research and monitoring, education and awareness, community lion management, etc.	Increased levels (50 to 100%?) compared to July 2019 levels in: 1. Number of training days and programmes initiated 2. Number of staff trained (rangers, ecologists, extension officers) 3. Number of communities trained and implementing elephant management programmes 4. Number of lion conservation campaigns conducted	Record of staff training and re-training in staff files and annual summary report of training Record of communities trained Record of training programmes	Immediate and ongoing through to 2024	DDGCon, CE, LC, HRM
7. Strive to achieve best standards for lion management and hunting	1. Best standards for lion management in Zimbabwe, based on international standards, drafted and distributed to all practitioners	Record of best practices complied with/ not complied with	By June 2020 and ongoing	DG, DDGCon, CE, LC, HMS
8. Engage available external expertise	1. Number of expert driven decisions made from Consultations 2. Number of collaborative and outsourced projects with external experts	Reports and record of collaboration with external experts	Ongoing	CE, LC
9. Establish effective reporting procedures that enable capture/consolidation of data from field to Head Office levels	Implement SMART and/ equivalent effective data capture and management systems	Data base	Ongoing 2020-2025	ZPWMA

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
10. Promote an enabling environment for wildlife research in Zimbabwe	Review current policy, procedures and fees for research permits to increase ease of doing research in Parks and Wildlife Estate and other wildlife areas by August 2020	Review report and policy developed	By Aug 2020	ZPWMA/Research Council of Zimbabwe
11. Implement scene of crime training, including dealing with poisoned animals	At least two staff members per Area trained and available to attend to and record crime scenes	Staff training record and deployment, and reports from field stations	Ongoing	ZPWMA
12. Introduce training in the use of SMART	SMART introduced and operational from all field stations	Input to the central SMART Database	Ongoing	ZPWMA

4.5 Coordination, Collaboration and Programme Management

Objective: Ensuring effective coordination and collaboration with local, national, and international stakeholders to implement these strategic objectives

Output: Coordination mechanisms to assess and review adaptive lion population management and strategic planning established and operating

KPI: National Lion Coordinator appointed, national Lion Working Group established and active, regional lion conservation committees with appropriate stakeholder membership and participation appointed and active, and an information dissemination programme operational

MV: Lion Coordinator's quarterly report, minutes of meetings, and records of completed planned actions/activities, record of Lion Working Group meetings and activities.

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Establish a national lion conservation & management steering/implementing committee that includes stakeholder meetings at least bi-annually to review progress and to develop an annual implementation plan	1. National committee functional and meeting once a year (or more if required) 2. Committee meeting minutes, with actionable points approved, circulated within one month of meetings 3. Number of resolutions/action points, acted upon	Record of meetings, minutes, actions approved and completed	Immediate with first meeting by 30 th Dec 2019	DDGCon, CE, LC
2. Strengthen links with neighbouring states to confer on the management of shared lion populations, particularly in relation to TFCA populations	1. Consultative meetings held with neighbouring states on shared lion populations at least twice each year 2. Joint cross border projects initiated and completed	Record of attendance at and reporting to regional and international elephant conservation bodies of which Zimbabwe is a member Record of project initiated/completed	Ongoing and projects initiated in 2020	DG, DDGCon, CE, TFCA Coordinator
4. Establish a full-time lion position to be responsible for coordinating the implementation of the lion conservation strategy	1. Lion Coordinator appointed with full terms of reference 2. Monthly reports from Lion Coordinator on implementation	Elephant manager's contract and date of appointment Record of reports by the person in the elephant management position	Immediate and by November 2020	DG
5. Strengthen coordination between the hunting industry and the lion conservation strategy and action plan	1. Regular meetings and a workshops convened with the hunting industry on hunting and lion management issues 2. Key issues resolved by June 2020	Record of meeting and workshop proceedings Record of lion hunting issues resolved	Immediate and ongoing	DDGCon, LC

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
6. Establish and implement an effective information dissemination and communication strategy, including regular progress reports on the implementation of the strategy	1. Outreach programmes conducted 2. Information packages produced on lion conservation 3. Research papers published	Reports, brochures, flyers, web site Published papers	Ongoing	ZPWMA, (PRM, CE)
7. Establish reporting procedures/protocols to achieve communication between all stakeholders	A communication platform in place and operating effectively	Reports received and disseminated to stakeholder	By March 2020	LC, Lion Working Group

5. Notes on Monitoring

Monitoring of a wide range of activities and actions will necessarily form an important, if not vital, component in the implementation of the action plans. It will require careful thought as to precisely what should be monitored and in the design of the recording protocols and forms that will be used. Ideally records should in a form that can be aggregated from field to head office level to provide local, regional and national level statistics of progress in lion conservation and management. The following table (adapted from the Zimbabwe rhino policy and management framework 2011-2016) provides an example of the data that needs to be compiled for each population to gauge progress in population status, performance and law enforcement.

SEE NOTES BELOW	Name of person completing this data form					
	Date on which this data from was completed					
	Name of area covered					
	Size of area in km ²					
	YEAR	2020	2021	2022	2023	2024
	Date of population estimate					
	Lion population estimate (number) (as per National Monitoring Plan)					
	No of natural mortalities					
	No killed illegally					
	No killed on PAC					
	No killed on trophy hunts					
	No of carcasses found that died in previous years					
Total mortalities						
1	No of lion poaching incursions/attempts detected					
	No of incursions/poaching attempts intercepted					
	Lion poachers arrested during the year					
	- How many were given bail					
	- How many were given jail sentences					
2	- Of these how many received mandatory sentences					
	Number of poachers killed during the year					
	Number of firearms recovered from poachers					
3	Total man-days spent on patrol					
4	Average number of staff available to patrol at any one time					
5	Total number of vehicle months available during the year					
6	% of the area that has secure HF radio communications					
7	% of the year that the VHF system was functional					
8	Number of incursions reported on / reacted to by local community					
9	Hunting regulations infringements					

NOTES:

1	These are incursions into the area by poachers clearly intending to use firearms, poison, heavy snares, etc to kill elephants, rhinos, lions, or attempted incursions that were intercepted before they took place
2	Mandatory sentences for elephant / rhino / lion poachers or dealers are 9 years for first offence and 11 years on second
3	This is actual patrolling effort expressed in patrol man-days carried out per year (not total staff x 365 days)
4	This is the average number of men (including deployments from other areas) in the field at any one time
5	Each vehicle available for law enforcement operations should be multiplied by the number of months it was available for field operations
6	e.g. if only three-quarters of the area has VHF radio reception then this figure will be 75
7	e.g. if the VHF radio system was only functional for 3 months of the year then this figure would be 25
8	Refers to the number of times the local community (not paid informers) volunteered information on actual or potential incursions of elephant/rhino/lion poachers, and/or freely provided information/help leading to interception/ arrests
9	Refers to infringements of the regulations by safari operators/hunters/guides (e.g. shooting underage trophies, exceeding quotas, transfers of quotas from other areas, hunting from vehicles, baiting and hunting on park boundaries, etc.)

Note that data required for items 3-9, are those that would be required for an assessment of law enforcement across the parks and wildlife estate and are part of the monitoring and reporting required under the rhino and elephant management plans.

6. Concluding Comment

This is an ambitious plan that mirrors many of the components that form part of the rhino and elephant conservation and management plans. All of these action plans involve overlapping activities, particularly in law enforcement, social, economic and cultural frameworks and in capacity building. There is thus a need to find ways of bringing these efforts together in a coordinated manner that will work at all levels, from national, to cluster, to local areas. This may entail appointing staff to specifically drive and coordinate the implementation of the suite of species-specific action plans at each level.

Establishing and maintain a Lion Working Group holds the promise of being able to draw on a wider range of scientific and technical expertise to assist ZPWMA in the implementation of this action plan and it will be important to nurture the voluntary input that this entails.

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8. ANNEXES

8.1 Terms of Reference for National Elephant and Lion Conservation Committee

Function: To annually review the National Lion Conservation and Strategy and Action Plan and progress in implementing the Action Plan; to review budget and policy decisions by the Lion Coordinator; to provide guidance to the Ministry of Environment, Tourism and Hospitality, and the Parks and Wildlife Management Authority on matters relating to the conservation and management of lions in Zimbabwe.

Role of Individual Group Members: The role of the individual members includes:

- Understanding the strategic implications and outcomes of initiatives being pursued through the Action Plan Outputs;
- Appreciating the significance of the Action Plan's implementation for major stakeholders and for the future of lion conservation;
- Being committed to and actively involved in, implementing the most efficient and effective Action Plan;
- Being willing to suggest changes to the Action Plan or any regional/local action plan to achieve efficiency and effectiveness.

Duties: The Committees primary responsibilities include:

- Agreeing and recommending on major technical decisions concerned with elephant and lion conservation and management;
- Developing recommendations on policy issues when appropriate;
- Overseeing the monitoring and implementation of the Action Plans;
- Advising the PWMA and the Elephant and Lion Coordinators on sourcing of funds;
- Monitoring funding, expenditure and effectiveness.

Composition: The members of the National Elephant and Lion Conservation Committee:

- Director ZPWMA (Chair);
- Elephant and Lion Coordinators (Secretarial);
- Representatives of ZPWMA, Ministry, CAMPFIRE, ZRP;
- Technical advisors
- Private sector, Wildlife Industry, and NGOs representatives

Time Frame: The Committee will meet at least once a year and can be called upon to meet more frequently as the need arises.

Minutes and Meeting Papers: The Coordinator(s) will record Minutes. Minutes will be circulated within one month of Committee meetings. The Coordinator(s) will keep a record of resolutions and action points up to date.

Recommended actions may be tabled without a meeting by a signed unanimous consent circulated, compiled, and maintained by the respective Coordinators.

Quorum Requirements: A quorum exists when [75%] of the Committee members are present.

8.2 Terms of Reference for the Lion Working Group

The function of the Lion Working Group will be to provide scientific and technical advice and guidance to the implementation of the National Lion Conservation Strategy and Action Plan and

- To meet and discuss priority lion conservation issues
- To review lion trophy hunting and provide recommendations to improve the sustainability and ethical practice of trophy hunting
- To make recommendations on captures and translocation and assist in the development of protocols to guide capture and translocation of lions
- To identify areas for lion recovery and connectivity and make appropriate recommendations
- To assist with recommendations on areas of excess and depleted lion populations
- To identify and help develop appropriate methods for problem animal management
- To assist in developing reports for international conventions and position statement with regard to lion conservation for the country

8.3 Terms of Reference for the Lion Coordinator

Function: To coordinate lion management in Zimbabwe; to work with stakeholders including the National and Regional Committees, ZPWMA, communities, private landowners, safari operators, and researchers

Duties: The Lion Coordinator's duties include:

- Coordinating major technical decisions concerned with lion conservation and management;
- Developing and implementing agreed lion policy;
- Ensuring the successful implementation of all required actions;
- Advising the Elephant and Lion Conservation Committee;
- Liaising with stakeholders;
- Collecting, collating and disseminating required reports under the Action Plan;

Approval Page

The Zimbabwe Parks and Wildlife Management Authority Board of Directors and the Director General have approved the implementation of the Zimbabwe National Lion Conservation Strategy and Action Plan (2020-2025)

Signature: _____

Date: _____

Mr. Fulton Mangwanya

DIRECTOR-GENERAL - ZIMBABWE PARKS AND WILDLIFE MANAGEMENT AUTHORITY

Signature: _____

Date: _____

Retired Judge Moses Chinhengo

APPROVED BY BOARD CHAIR - ZIMBABWE PARKS AND WILDLIFE MANAGEMENT AUTHORITY