

ZIMBABWE NATIONAL ELEPHANT MANAGEMENT PLAN (2021 – 2025)



Elephants coming in to drink at Nyamandhlovu Pan, Hwange National Park, Zimbabwe
(Photo credit: Rose Mandisodza-Chikerema)

Zimbabwe Parks and Wildlife Management Authority



Approval Page

The Zimbabwe Parks and Wildlife Management Authority Board of Directors and the Director General have approved the implementation of the Zimbabwe National Elephant Management Plan (2021 – 2025).

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**APPROVED BY BOARD CHAIR - ZIMBABWE PARKS AND WILDLIFE
MANAGEMENT AUTHORITY**

FOREWORD BY THE DIRECTOR GENERAL



The Government of Zimbabwe considers elephants as an important part of our national heritage, a keystone species ecologically, and a valuable natural resource that contributes to conservation and rural development. We presently have, here in Zimbabwe, the second largest elephant population on the African continent and both a national and international responsibility to protect and manage our elephant population responsibly for the benefit of our people and those beyond our borders.

The last countrywide census of our elephant population in 2014 estimated between 76,000 and 93,000 elephants. There was probably a further thousand elephants in small populations that were not surveyed. The country's elephants are dispersed in four populations North Western and South Eastern populations have grown above the desired densities with severe impacts on other species. In two of these populations in the Zambezi Valley there was marked decline in numbers, mostly as result of illegal killing of elephants. Other countries have faced even more serious losses as a result of poaching, and so we have succeeded to a point. We as a country, in cooperation with the international community, need to strengthen our ability to protect and effectively manage our elephant populations to achieve our vision:

To conserve elephants at levels that will enable them to contribute to the conservation of biodiversity, national development and Zimbabwe's cultural heritage.

In signing this updated Action Plan for Elephant Conservation and Management in Zimbabwe, the Government recognises and appreciates the heavy responsibility borne by those who dedicate themselves to conserving and managing elephant populations and their habitats in Zimbabwe. The Government is aware of the pressure in the current conservation environment that perceives an approaching extinction of elephant in Africa and opposes sustainable use of the species. The Government perceives this pressure to be a factor that limits the resources available to conserve elephants and their habitats, and the range of plant and animal species that occur in these wildlife areas. Sustainable use of natural resources has been and remains a central pillar of successful conservation in this country. The Government has every intention of maintaining its policy in this regard.

In signing this Management Plan, the Government recognises and supports the efforts that are being made on the ground and elsewhere, by a wide range of individuals and institutions, to protect and manage our elephant populations. We are also aware of the current and likely ongoing challenges being imposed on our conservation efforts by the global coronavirus pandemic. We thank all of those involved in this vital and honourable conservation work and urge them to continue their efforts and support.

We believe this document will provide clear guidance on the way forward to continuing protection and management of our elephants and a framework for effective and ongoing collaboration between all stakeholders involved in this noble effort.

Dr. Fulton Upenyu Mangwanya
DIRECTOR GENERAL

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Acronyms and Abbreviations

AEAP	African Elephant Action Plan
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
HEC	Human Elephant Conflict
HMS	Head Management Services
HRM	Head Human Resources
IM	Investigations Manager
KPI	Key Performance Indicator
MECHI	Ministry of Environment, Climate, Tourism and Hospitality Industry
NGO	Non-Governmental Organisation
NP	National Park
PRM	Public Relations Manager
RDC	Rural District Council
SADC	Southern Africa Development Conference
SMART	Spatial Monitoring and Reporting Tool
SOAZ	Safari Operators Association Zimbabwe
ZHA	Zimbabwe Hunters Association
ZPHGA	Zimbabwe Professional Hunters and Guides Association
ZPWMA	Zimbabwe Parks and Wildlife Management Authority
ZRP	Zimbabwe Republic Police
TFCA	Transfrontier Conservation Area

Abbreviations for those staff positions or agencies responsible for implementing activities in Action Plans are provided on page 19

1. INTRODUCTION AND BACKGROUND

By any standards Zimbabwe has a proud history of successful elephant conservation. Elephant populations in most of Africa were reduced to very low numbers by the late 19th Century. In 1897 approximately 100,000 tonnes of ivory were exported from Africa ^[50]. In 1900 it was feared that elephant might become extinct south of the Zambezi River ^[7]. Using historical accounts of elephant numbers, backwards extrapolations based on population growth rates, and known levels of elephant kills it is unlikely that Zimbabwe held more than about 4,000 elephants in 1900 ^[7,11,15,17]. More than one hundred years later, in 2014, this number had increased twenty-fold to an estimated 82,092 (+/- 10.5%)^[24] elephants (**Fig. 1 and Table 1**) despite attempts to limit elephant population growth between 1960 and 1989 by culling 45,000 elephant in tsetse control areas and state protected areas (**Fig. 1**) ^[5,38]. The primary rationale for limiting elephant numbers in protected areas was to reduce their impact on woodland habitats and the loss of plant and animal species as a result of elephant-induced habitat change ^[10,11,12,57,58]. Elephant impacts on woodlands and associated biodiversity are still a concern today ^[16,19,41,42,53,58].

Between 1990 and 2006 elephant populations grew exponentially but growth during the following decade was limited by an escalation of illegal killing ^[20]. However, the overall population in the country has remained at an estimated population of about 82,000 elephants (**Table 1**), which is more than twice the national target population envisaged in the 1980s.

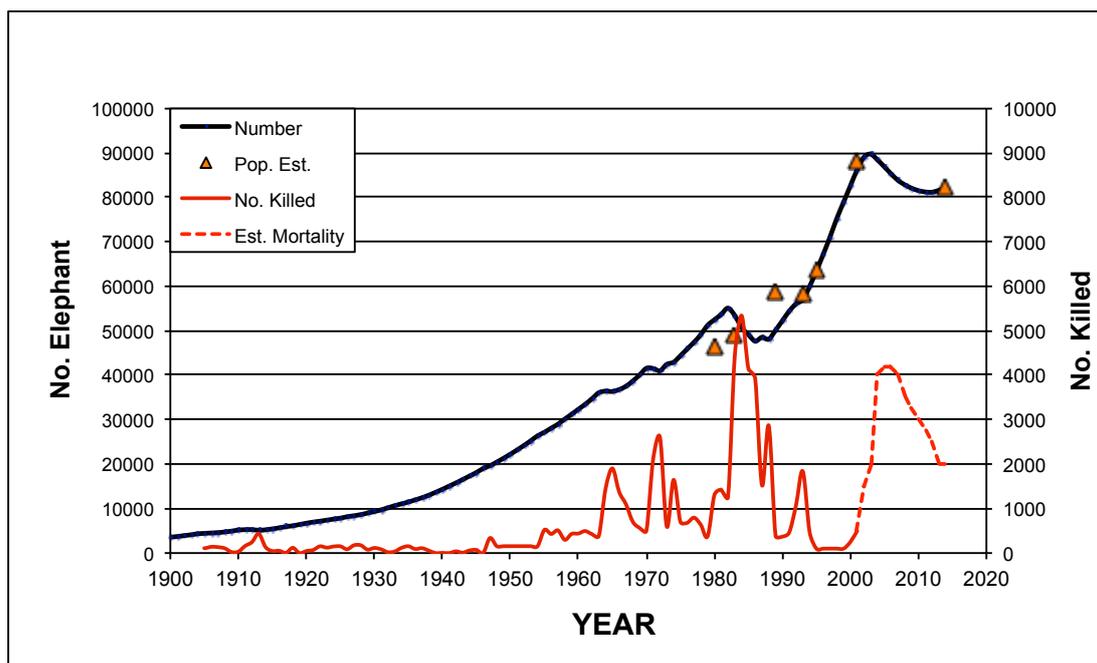


Figure 1. Growth of elephant population in Zimbabwe between 1900 and 2001, number of elephant killed (lower graph), and aerial census estimates (triangular point) in those years in which the entire elephant range was covered. The numbers killed before 1960 are based on the amount of ivory exported from the country. The high numbers killed in the 1980s represent the large-scale culls that were carried out during that period in an effort to reduce their environmental impact. The high level of mortality between 2000 and 2014 represents the likely numbers killed to fit the reduction in the total population as a result of the marked declines in the Sebungwe and Lower Zambezi Valley during that period (See figures 4 and 5 below)

Zimbabwe is one of the key elephant range states and home to the second largest estimated elephant population of some 82,000 individuals following Botswana, which is estimated to hold more than 130,000 elephants ^[54]. Zimbabwe thus has a clear obligation to ensure the survival of the species for the benefit of present and future generations of all stakeholders¹.

Zimbabwe first adopted a specific Policy and Plan for Elephant Management in 1997 ^[40] with the long term vision to “*Conserve elephants at levels that will enable them to contribute to the conservation of biodiversity, national development and Zimbabwe’s cultural heritage.*” As a matter of policy, the plan required that at least four demographically and genetically viable populations² of elephants be maintained, that elephant densities be kept below the levels at which they might compromise biodiversity in protected areas, and that elephant range remains at or above the 1996 level. At the time illegal killing of elephants was at a very low level and the plan placed little emphasis on law enforcement. That situation has since changed drastically, with poaching at a crisis level in some countries, although not to the same extent in Zimbabwe. Furthermore, elephant range has been constrained, if not reduced, by increasing human population densities in many rural areas. Accordingly, the Zimbabwe Parks and Wildlife Management Authority (ZPWMA) convened a participatory workshop in Hwange Safari Lodge (from 2nd to 4th December 2014) to develop an agreed “*Strategic Elephant Conservation Policy and Management Plan Framework*”. The policy and primary objectives of the 1997 plan were incorporated into the December 2014 framework, and the objectives and action items were updated to reflect new challenges to elephant management that were not in focus in 1997. The framework developed at the December 2014 workshop, together with input from the two-day CAMPFIRE Association workshop held in November 2014, formed the basis of the 2015-2020 elephant management plan. The national workshop included stakeholders with varied interests from the wildlife and tourism industry, conservation NGOs, technical experts from Zimbabwe and the international community, and government representatives from wildlife agencies in neighbouring countries that share elephant populations with Zimbabwe.

At the Hwange workshop, participants agreed that each of the four primary elephant ranges needed a regional action plan to address the specific challenges of conserving elephant in those areas. Accordingly, from 30 April to 2 May 2015, a workshop was held to discuss an anti-poaching strategy for Mana Pools National Park, which was later expanded to cover the mid-Zambezi Valley region. Similarly, in May and September 2015, workshops were held in the Sebungwe and the South East Lowveld, respectively, to develop action plans for each region. An anti-poaching strategy workshop for Hwange National Park was held in June 2015 and, together the management plan for the park, provided a basis for completing an action plan for Northwest Matabeleland. These action plans were appended in Annexes 9.4 to 9.7 in the 2015-2020 Elephant Management Plan and are included in this plan following input from stakeholders in each region.

A supplement to the plan and a review of progress was completed in September 2016. It highlighted the priorities for the successful implementation of the plan and the progress that had been made towards its successful implementation from the time it was adopted in 2015. Progress in implementing

^{1/} The African elephant comprises two species ^[48], namely, the forest elephant and the savanna elephant. Given the high proportion of the continent’s savanna elephants that occur in Zimbabwe this places increasing responsibility on this country for their conservation.

^{2/} See Armbruster and Lande (1993) for an explanation of the need to consider both demographic and genetic viability in setting population size targets for elephants.

the plan was reviewed again in 2019 and submitted to the Eighteenth meeting of the Conference of the Parties to CITES, in Geneva in August 2019¹ and to the United States Fish and Wildlife Service. Effective progress was made in containing the level of illegal killing of elephants with a reduction from 210 elephants poached in 2016 to 29 in 2019. These results were achieved by establishing rapid response units, additional investment in investigations and training, and logistical support provided by conservation support organisations that included air support in surveillance. Resources were not available to complete a full national aerial survey of elephant populations with the result that a current estimate of elephant numbers and of carcass ratios is not available. Satellite tracking collars were fitted to more than seventy elephants to improve knowledge on their movements and potential use of corridors. The Monitoring of Illegal Killing of Elephants (MIKE) programme was extended to new areas and a ZPWMA Wildlife Research Strategy for 2018-2022 was developed and implemented.

The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) was comprehensively reviewed during 2017 and 2018 with European Union (EU) support. The resulting CBNRM policy and guidelines that have been adopted by Government will further facilitate conserving elephant and wild land in the communal areas of the country. Implementing the policy will also contribute to the mitigation of human-elephant conflict that has increased during the 2015-2020 period through the provision of increased incentives to conserve and sustainably use wildlife. During this period the ZPWMA was also restructured to enhance its capacity to conserve and manage the country's wildlife.

Effective progress was made in building capacity and mobilising resources with added support from the Global Environmental Facility (GEF) and the EU as well as support from a number of Conservation Support Organisations (CSOs), including WWF, Frankfurt Zoological Society, Conservation Force, The Tashinga Initiative, Zambezi Society, and the private sector including hunting and photographic operators.

In updating the 2015-2020 Elephant Management Plan ZPWMA had initially planned to hold a workshop in each of the four regions four elephant regions to update the regional Action Plans to be followed by a National Workshop. The first workshop was held in Chinhoyi in late March 2020 for the Lower Zambezi Valley and the remaining workshops had to be cancelled with the onset of Covid-19 lockdown in the country. Updating the remaining three regional plans continued online with the aid of e-mails, WhatsApp messages and calls, and facilitated Zoom meetings.

The current conservation status of African elephants is that they are listed as a single Vulnerable species under the IUCN Red List, as an Endangered species in CITES Appendix I, i.e. apart from the populations of Botswana, Namibia, South Africa and Zimbabwe that are listed under CITES Appendix II. In Zimbabwe, the African elephant is not included in the list of "specially protected animals" in the Parks and Wild Life Act because their population is so large.

1.1 Numbers, distribution and regional trends of elephant in Zimbabwe

Elephants are distributed in four main regional populations in Zimbabwe, namely, Northwest Matabeleland, the Sebungwe, the mid-Zambezi Valley, and the South East Lowveld (**Fig. 2**). Crude ecological densities in 2014 varied between 2.16 elephant/km² in Northwest Matabeleland and 0.46 elephant/km² in the Sebungwe region (**Table 1**).

¹ / The report - Cop 18 inf. 32 "Showcasing the Implementation of Zimbabwe National Elephant Management Plan (2015-2020) and its National Action Plan" is available from <https://cites.org/eng/com/cop/18/inf/index.php>

Table 1. Numbers and densities of elephants in the four regions of elephant range within Zimbabwe*. (Source: 2014 Elephant Survey results) ^[24, 25, 26, 27,28]

Name of Region & Area	Area (km ²)	Estimated Number of Elephants	Density of Elephants/km ²
NW Matabeleland	24,989	53,991	2.16
Hwange National Park	15,180	45,846	3.02
Matetsi Complex	4,402	4,843	1.10
Forest Areas	2,332	1,101	0.47
Communal Lands	3,075	2,201	0.72
Sebungwe	15,529	3,407	0.22
Parks & Wildlife Estate	6,234	2,894	0.46
Forest Areas	261	16	0.06
Communal Lands	9,034	497	0.06
Mid-Zambezi Valley	16,014	11,656	0.73
Parks & Wildlife Estate	12,257	9,752	0.80
Communal Lands	3,757	1,904	0.51
South East Lowveld	8,835	13,037	1.48
Gonarezhou NP & Malapati SA	5,118	11,120	2.17
Save Conservancy	3,496	1,585	0.45
Communal Lands	221	332	1.50
<i>Mozambique Border</i>	<i>1,574</i>	<i>0</i>	<i>0</i>
National Total*	65,367	82,091	1.23
Parks & Wildlife Estate	43,191	74,455	1.75
Forest Areas	2,593	1,117	0.43
Save Conservancy	3,496	1,585	0.45
Communal Lands	16,087	4,934	0.18

* NOTE: The period 2014-2020 has seen a decline in the levels of poaching and in the absence of current countrywide survey of elephant populations the results of the 2014 survey are provisionally retained here. The results of the 2016 and 2018 surveys of Gonarezhou NP are reflected in Fig. 6 below. Aerial surveys were conducted in Chizarira in 2017, and in Bubyeye and Save Valley conservancies in 2019.¹

The elephant range in Northwest Matabeleland covers an area of approximately 25,000 km² and includes national parks, safari areas, forest areas, commercial farmland, and communal land - mostly covered by Kalahari sands (**Fig. 2**). The population of some 54,000 elephants is part of the larger regional population of about 220,000 in the Kavango-Zambezi Transfrontier Conservation Area (KAZA) this includes the Sebungwe and parts of south-eastern Angola, Botswana, Namibia and south-western Zambia. The major component of about 45,000 elephants is found in Hwange National Park. At the onset of the rains some elephants disperse from Zimbabwe into Botswana resulting in a shared population between these two countries ^[55].

The elephant population in Hwange National Park was approximately 2,000 animals when it was first declared a Game Reserve in 1928 ^[11]. Elephant impacts on vegetation reached alarming levels by 1964 and a representative of WWF-US advised the then minister of natural resources to act on what was perceived to be an over-population of elephants. The first major cull of elephants took place in the park in 1965 ^[11]. A major factor contributing to the growth of the elephant population (with a density of 3/km² in 2014), and of other species, was the provision of artificial water supplies through the dry season ^[11,45]. The Matetsi Safari Area to the north of Hwange National Park was established, in 1972

¹ / The estimate for Chizarira was 772 elephants (N. Monks, pers.com), for Bubyeye Valley it was 749 elephants (K. Dunham, unpublished report), and for Save Valley Conservancy it was 3,517 elephants (S. Vos, pers. com).

on what had been a commercial farming area. The present Matetsi complex includes the Safari Area, two National Parks, and three Forest Areas, and carries a lower density of elephant ($1.1/\text{km}^2$) than Hwange National Park. Estimated growth of the elephant population since 1980 in Northwest Matabeleland is shown in **Fig. 3** below.

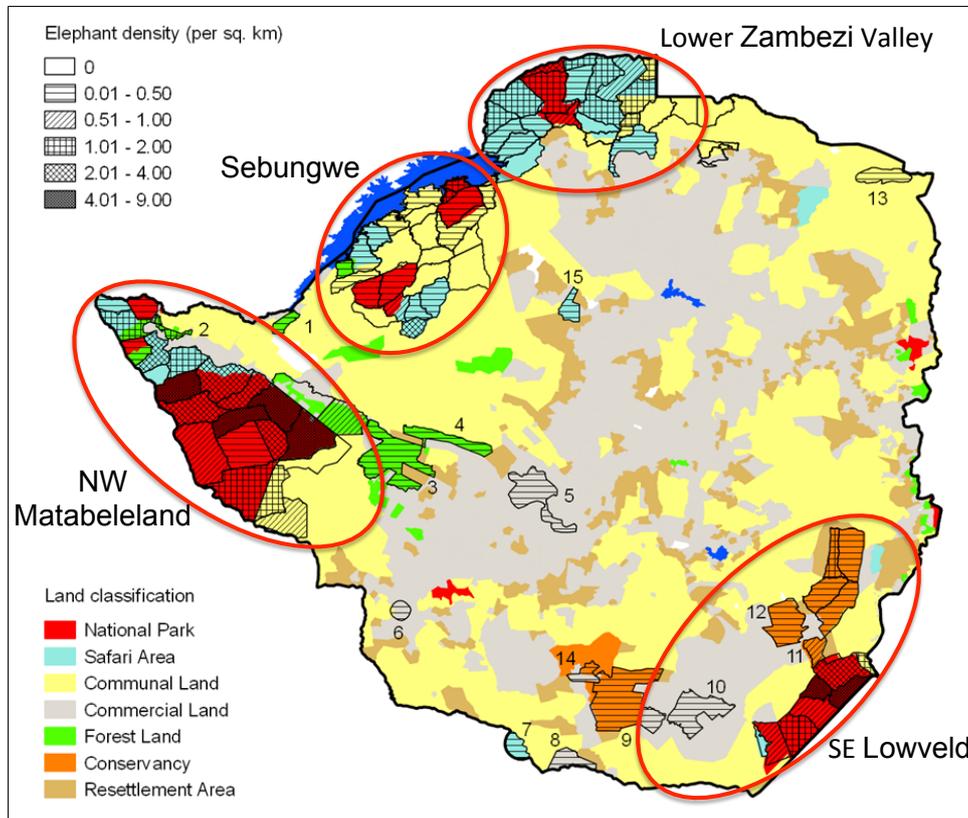


Figure 2. The four regional elephant populations occur within the encircled areas. (Elephant densities are from the 2014 survey ^[22])

Following the large culls of the 1980s the elephant population of Hwange National Park grew rapidly from 13,000 in 1986 to about 35,000 in the early 1990s and appeared to stabilise at about this number ^[8]. However, the 2001, 2007 and 2014 dry season estimates of between c. 35,000 and 45,000 ^[25] suggest that the elephant population in the park may now have stabilised at about this number (or a density of 2 to 3 elephants/ km^2), with rainfall and water supplies acting as limiting factors. Maintaining an elephant density at this level does, however, mean that impacts on woody vegetation and biodiversity within the NP will have stabilised, or will do so.

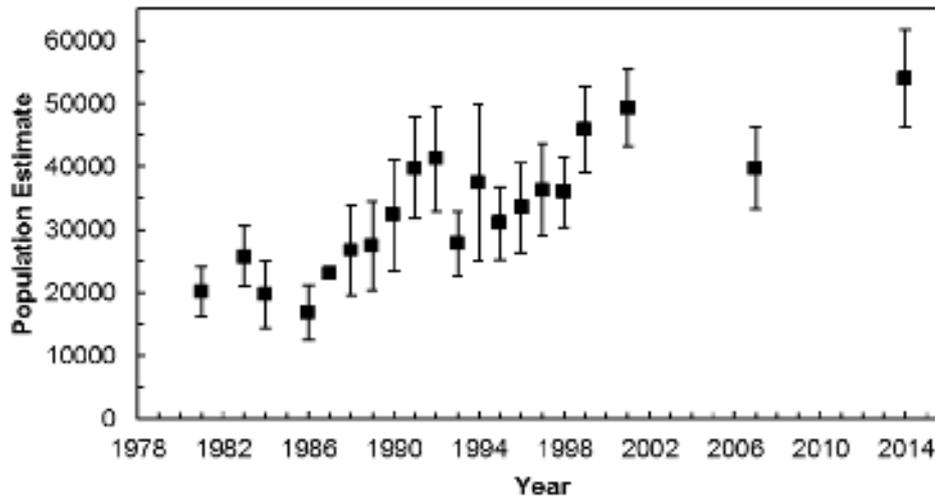


Figure 3. Number of elephant estimated to be in NW Matabeleland since 1981 (Source 2014 Aerial census ^[25]). (Note: The survey in 2007 did not cover the entire range)

The Sebungwe region covers an arc of 15,000 km² to the south of Lake Kariba. Historically, the area was demarcated by tsetse control fences that ran from Binga, on the lakeshore in the west, southwards to the Sengwa Wildlife Research Area, and then north-eastwards to the Kanyati River and Matusadona National Park (**Fig. 2**). The Parks and Wildlife Estate in the Sebungwe includes 6,234 km² and with two national parks and two safari areas. There is a single forest area within the region and the remaining area of c. 9,000 km² is communal land. As in the other regions the elephant population grew from about 2,000 elephant in the 1920s to c. 15,000 in 2006 ^[11,20]. Between 2006 and 2014 it was reduced to an estimated population of 3,500 in 2014 ^[27] (**Fig. 4**) and has probably remained at about that level since then. The human population in the three districts of the Sebungwe increased from 45,000 in 1950 to some 700,000 in 2013 with population densities of more than 30 per km² in Gokwe North and Gokwe South. The threshold human density at which elephants disappear from settled areas is approximately 15 people/km² ^{[32] [39]}.

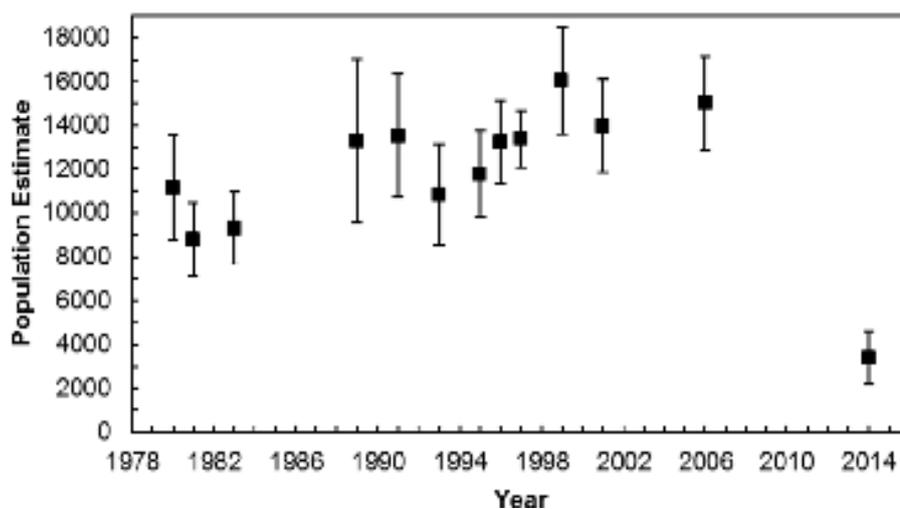


Figure 4. Number of elephant estimated to be in the Sebungwe since 1980 ^[27].

The mid-Zambezi Valley area of 11,000 km² includes Mana Pools National Park, six safari areas and small, adjacent areas of communal land. Returns from hunting leases and quotas provide an important source of revenue for ZPWMA. Unlike the Sebungwe the protected areas are contiguous. The elephant population reached a high of 19,000 in 2001 and between 2001 and 2014 was reduced to 11,000 elephants ^[26] (**Fig. 5**). Culling took place in the escarpment areas of Charara, Nyakasanga and Mana Pools during the 1980s. As in North West Matabeleland, the elephant population in the mid-Zambezi Valley is shared with Zambia in the Lower Zambezi National Park and with Mozambique. In 2018, 100 elephants were translocated from the Save Valley Conservancy to the Rifa Safari Area in the Lower Zambezi Valley.

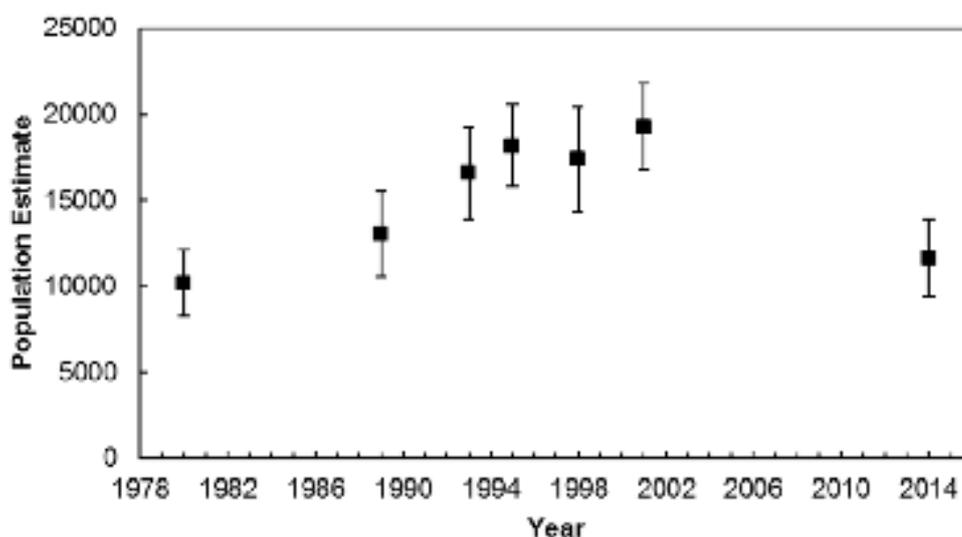


Figure 5. Number of elephants estimated to be in the mid-Zambezi Valley since 1980 ^[26].

Recent estimates of elephant in the adjacent 16,500 km² in Mozambique south of Cabora Bassa are 1,985 elephants in 2010 ^[21], and 1,600 in 2014 - a decline of 19%. In Zambia, an aerial survey of the Chiawa Game Management Area and of the Lower Zambezi National Park in Zambia in October 2013 estimated elephant populations of 405 and 1,795 in the two areas respectively ^[56]. The elephant density in Chiawa GMA was 0.16/km² and in the Lower Zambezi National Park was 0.41/km².

The South East Lowveld elephant population is centred on the Gonarezhou National Park population of c. 11,000 elephant in 5,000 km² that has been growing at about 5% per annum for the last 20 years (**Fig. 6**). The population falls within the Great Limpopo Transfrontier Conservation Area (TFCA) and there is some movement of elephant between Gonarezhou and Kruger National Park and across the park boundary into Mozambique. Separate elephant populations occur in the Malilangwe, Savé Valley, and Buby Valley conservancies. There is also a small population in the Tuli Safari Area that is shared with South Africa and Botswana in the Mapungubwe TFCA. Overall there are about 13,000 elephant in this range ^[28]. The 2014 survey recorded no live elephants in the Mozambique blocks adjacent to Gonarezhou National Park but returned an estimate of more than 160 elephant carcasses ^[28].

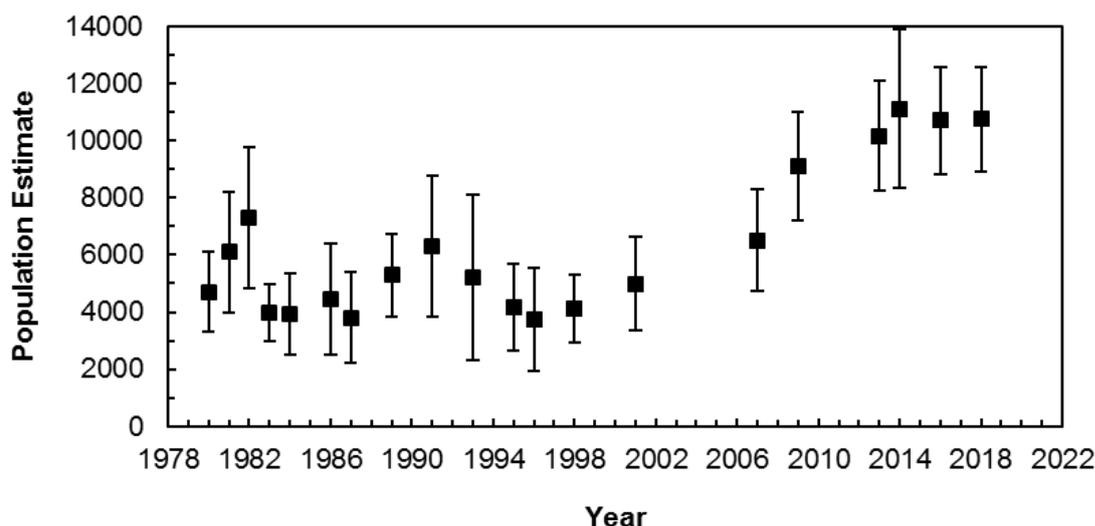


Figure 6. Estimates of the number of elephant in Gonarezhou National Park since 1980 ^[29]

Summary Comment. Law enforcement, mitigating human-elephant conflict ^[6,32,39,43,44], and building supportive and beneficial relationships between protected areas and their neighbours ^[44,51] are key issues in all regions. In the Sebungwe, rapid human population growth and settlement in previously uninhabited areas is reducing the range available to elephants and limiting movement between protected areas ^[39]. Here, rehabilitating protected areas and implementing strong incentives ^[51] for elephant conservation in the communal lands will be strategically important steps for that region. For all of the four elephant ranges in the country further key specific actions will be undertaken through the Action Plans that have been developed and updated for each region (Annexes 9.4 - 9.7). The development and updating of regional action plans and the devolution in monitoring and management that this can facilitate will also serve to reduce the risk of scale mismatches between institutional/social and ecological scales ^[18].

1.2 Targets for elephant numbers in relation to conserving biodiversity

Specifying a positive target figure for the number of elephants a country wishes to conserve is entirely appropriate where an elephant population has been greatly reduced as in the Sebungwe region. In countries, or areas of countries, where there may be an over-population of elephant a legitimate objective may be to reduce their number. The three targets that were adopted as a matter of policy in 1997, and are retained, by the Zimbabwe Government are:

1. *To maintain at least four demographically and genetically viable elephant populations in Zimbabwe*
2. *To maintain or increase the core protected area range of elephant in Zimbabwe*
3. *To maintain numbers / densities of elephant at levels that do not adversely impact on biodiversity conservation goals while contributing to economically viable and sustainable wildlife-based land uses in Zimbabwe*

Maintaining four regional populations each of between 5,000 and 10,000 elephants would meet the first target of maintaining four demographically and genetically viable populations ^[2]. However, the third target is not likely to be met unless there is sufficient range, in each of the four regions, in which

to hold these numbers without compromising the range of biodiversity that the country is committed to protecting in terms of its policy and legislation. The core state protected area (National Parks and Safari Areas) of elephant range in Zimbabwe is close to 42,000 km². At present this area is carrying more than 70,000 elephants (**Table 1**) or a crude density of about 1.75 elephants/km², a density at which woodlands and biodiversity are compromised ^[1,3,10,12,13,16,37,52,57]. At densities as low as 0.3 elephants/km² woody plant species can be lost and species diversity of birds and invertebrates reduced ^[16,41,42]. In miombo woodlands, which form a predominant type of protected habitat in the Zambezi Valley and escarpment, woody plant species and some animal species may be lost at elephant densities as low as one elephant to 10 km² ^[37]. As an example, in a miombo woodland area in the Sengwa Wildlife Research Area (southern Chirisa) elephants at a density of < 1/km² were responsible for removing 45% of the woody biomass in just four years ^[30]. In Chizarira National Park, with elephant densities in excess of 1 per km² tree canopy cover declined from 75% in 1979 to less than 10% in 1993¹. The only tall trees remaining with dead wood to provide refuges for hole-using birds were found on large termitaria ^[33].

These examples highlight the dilemma that arises between attempting to protect as many elephants as possible at all costs on the one hand, and to preserve a full range of plant and animal species in protected areas on the other hand ^[15]. These examples also highlight the consequences of making single resource decisions (e.g. preserve all elephants) that can result in multiple resource consequences (e.g. loss of large trees, plant and bird species, and diversity generally). Research in Addo Elephant National Park in South Africa has shown that high elephant densities do not increase eco-tourism opportunities and high elephant densities, with their associated ecological costs, are not a requirement for eco-tourism financial sustainability ^[36].

It is clear that the choice of target elephant population size and density for a particular area or country depends on peoples' values and the values of decision-makers involved ^[4,15]. Ecological science can only provide guidance on the likely consequences of the targets that are chosen. For Zimbabwe the current elephant population is considerably higher than was envisaged in the 1980s when the target was to maintain a countrywide population of about 35,000 elephants ^[14,16]. Elephants are clearly a keystone species and are primary ecological engineers in savanna ecosystems ^[13], and particularly so at high densities in confined ranges. A sensible strategy, therefore, would be to match targets for elephant numbers to different areas and habitats and to vary these targets adaptively in time and space depending on long term trends and the results of appropriate programs that monitor the impacts of elephants on ecosystem structure, function and species diversity.

As a result of the above considerations a decision on a target number of elephant for the country, an particular regions and areas, is expressed in terms of an upper and lower limit of elephant density that is presently set at between two or three square kilometres per elephant (i.e. 0.3 to 0.5 elephants per km²). However, ZPWMA recognises that density is only one factor to be considered as part of population target setting. Equally, if not more important, are the impacts that elephants may be exerting on habitats and biodiversity. All the regional population densities except in the Sebungwe already exceed these density limits, and this will be taken into account in each regional action plan in establishing *thresholds of potential concern* ^[4] relating to ecological, economic and social impacts of elephants.

¹/ Cumming et al, unpublished estimates of tree cover determined from a time series of aerial photographs.

A series of regional action plans was developed in 2015 and in the Sebungwe a *tentative target* of 5,000 elephant was set for a population of approximately 3,000 in about 7,000 km² of available habitat. This target is maintained for the current plan and is based on the likelihood that a population of 5,000 will be both genetically and demographically viable^[2], and attainable given the land presently available to elephants. The elephant populations in the remaining regions are well above the thresholds established in the 1980s. An important component within the regional /cluster management plans is to carry out the necessary research on the ecological, economic and social impacts of elephants and to develop appropriate, spatially nuanced thresholds of potential concern (TPCs), for the adaptive management of these populations.

Management approaches to maintain elephant populations within the still to be set acceptable upper and lower limits (TPCs) will vary with each region but will, in all areas, continue to focus on improved protection and minimising the illegal killing of elephant. In some areas the manipulating water supplies may be used, and the protection of sensitive habitats may require creating a “landscape or ecology of fear”^[34,47] through appropriate disturbance of elephants visiting such areas. The most straightforward method of dealing with over-population of a species is culling. However, because the sale of ivory previously covered the costs of large-scale population reductions, this option was effectively constrained following the listing of elephant on Appendix I in 1989 by CITES. Despite the re-listing of Zimbabwe’s elephant on Appendix II in 1997, and the subsequent sales of stockpiled ivory in 1998 and 2008, trade in ivory has since continued to be curtailed by moratoria on the sale of ivory that are unlikely to be lifted. The poaching crisis that affected elephant populations in central and eastern Africa, and associated public sentiment, presently militate against the re-introduction of large-scale culling to manage elephant populations in Zimbabwe. The option to use small scale selective cropping of elephant as a management tool to regulate local elephant impacts, human-elephant conflict, and to provide benefits to local communities, will nevertheless be maintained.

1.3 Implementing the 2021-25 Strategy

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 the lead agency in elephant management, i.e. protection, research, monitoring and sustainable utilization. It forms collaborative arrangements with other institutions to manage elephants in the country.

ii) Intra-governmental institutions

ZPWMA works jointly with security organizations such as Zimbabwe Republic Police (ZRP), Zimbabwe Defence Forces, and the President’s Office to protect elephants and curb illegal trade in elephant products. ZPWMA works with these institutions through the Joint Operation Command (JOC) and Joint Permanent Commissions and SADC organs on bilateral and regional arrangements. ZPWMA also works with Customs at ports of exit and entry to improve control of the illegal and legal movement of wildlife products across boundaries.

iii) Intergovernmental organizations

ZPWMA works closely with sister organizations from neighbouring countries such as Zambia, Mozambique, South Africa and Botswana in wildlife protection, information sharing and elephant 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 elephants and elephant products to protect elephants.

Zimbabwe is a signatory to the following Conventions: Convention on Biodiversity (CBD), Convention of Migratory Species (CMS), World Heritage Convention, United Nations Convention on Climate Change (UNFCCC). ZPWMA works with the Ministry of Environment, Climate Change, and Hospitality Industry, and other environmental parastatals in the implementation of these conventions.

iv) Non-governmental organizations (NGOs) / Conservation Support Organisations (CSOs)

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

v) Private sector

The corporate community participates in elephant management 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 elephants. Regulated recreational hunting is a principal form of wildlife utilisation whereby offtakes are adaptively managed and monitored through a participatory and science based process. This process allows for sustainable offtakes, and rigorous resource monitoring programmes that allow recruitment within a population to ensure the continued survival of the population in the wild. The high economic value provided by elephant through consumptive utilisation has also resulted in increased tolerance by local communities.

BOX 1: The Role of Hunting in Elephant Conservation

Elephants are a charismatic species but can also be destructive when they destroy crops, threaten livestock and even human lives.

To have a future, elephants must have value; value to the governing authorities and to the local people. The greater the value, the greater the tolerance of them is likely to be. The local people who live closest to them will determine the long-term survival of species like elephant.

Regulated recreational hunting converts wildlife into assets for the benefit of local people and the country as a whole. Wildlife can be a most valuable asset and in turn empower local communities and provide basic necessities. When it is viewed as a valuable asset, wildlife becomes an economically competitive land use in Zimbabwe, which leads to habitat preservation instead of habitat destruction and conversion to agriculture or livestock production. Game animals have a survival advantage because of user-pay stewardship systems where use revenue generated from tourist hunters is paid through to wildlife authorities and local communities.

The presence of regulated hunting can also reduce illegal activities. Many hunting operators in Zimbabwe have specialised anti-poaching units. Private operators' lease agreements include anti-poaching as an obligation of the concessionaire. Regulated hunting is the opposite of poaching. One is a lawful activity designed by government wildlife authorities and experts to perpetuate resources and the other is prohibited thievery outside of and away from the system. The first is like making a bank deposit and the second is like a bank robbery, without sustainable limits.

Revenues from hunting are vital because there are not enough tourists to otherwise generate income to support all protected areas. Eco-tourism revenues are typically sufficient to cover the costs of only some of the parks and certainly not to justify wildlife as a land use outside of protected areas. Hunting is able to generate revenues under a wider range of scenarios than eco-tourism, including in remote areas lacking infrastructure, attractive scenery, or high densities of viewable wildlife.

Consequently, elephant and other wildlife populations will be negatively affected through reduced conservation efforts arising from low funding and reduced goodwill from the communities, when in reality elephants have the economic potential to support themselves and other species. For these reasons, Zimbabwe confirms its commitment to the sustainable use of elephant and other wildlife in this Action Plan.

vi) Local communities

Local communities are involved in elephant management in CAMPFIRE areas, through sharing of information, advocacy and wildlife protection. They report human-elephant conflicts and carry out some of the conflict management activities.

BOX 2: The Importance of Community Based Conservation to the Future of Elephant Management in Zimbabwe

The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) of Zimbabwe has been widely regarded as one of Africa's more successful contemporary community-based natural resource management (CBNRM) initiatives. It permits the residents of communal lands – basically the poor rural communities – to share in the benefits generated by wildlife utilisation on those lands by granting Appropriate Authority to Rural District Councils (RDCs) to manage wildlife on communal lands with revenue being paid to the wards and to the councils.

CAMPFIRE operates in about 16,087 km² (4,4%) of land in Zimbabwe. This is roughly equivalent half of the area of the Parks and Wildlife Estate. CAMPFIRE encompasses about 700,000 households with an average family size of five, who face food insecurity and deep poverty with an average income less than \$1 a day.

Between 1994 and 2012, CAMPFIRE generated \$39 million of which \$21.5 million was allocated to communities and used for resource management (22%), household benefits (26%), and community projects (52%). Between 2010 and 2018, the 10 RDCs (Binga, Bulilima, Chipinge, Chiredzi, Hurungwe, Hwange, Mbire, Nyaminyami, Tsholotsho) received approximately \$19.9 million from sale of hides, trophy fees, daily rate, concession fees, photographic levies, and other income, of which trophy fees accounted for 77%. The 75 wards in these districts received approximately \$9 million (45%). About 90% of CAMPFIRE's revenue comes from hunting, with elephant hunting contributing more than 70% of annual revenue.

Based on the Constitution of the CAMPFIRE Association as amended in 2007, all major hunting RDCs use CAMPFIRE revenue-sharing guidelines. In these districts safari operators pay revenue directly into community-controlled bank accounts using the following breakdown: CAMPFIRE community share (55%), RDC fees (41%), CAMPFIRE Association levy (4%).

Despite its achievements CAMPFIRE still faces fundamental challenges. In particular, the development strategies of households in CAMPFIRE areas focus on land uses that are incompatible with wildlife such as extending areas under cultivation for crops and increased livestock numbers. Other CAMPFIRE challenges include: (i) the downturn in Zimbabwe's economy and tourism sector post-2000; (ii) great reliance on hunting and less focus on non-consumptive uses of natural resources; (iii) increasing human populations averaging 16-20 people per km² in some key wildlife districts; (iv) lack of re-investment in development, fixed assets, human capital, and management and protection of wildlife in CAMPFIRE areas; and (v), more recently, a further decline in the country's economy and the major impacts of the COVID-19 pandemic on tourism.

Despite these challenges, CAMPFIRE and CBNRM remain high in the agenda of Zimbabwe's Government, and a review dedicated to improving the programme, including greater devolution of ownership of wildlife to communities, was completed in 2018. The resulting draft CBNRM policy is currently being reviewed. Zimbabwe's Government recognises that the survival of wild animals depends entirely on those among whom they live. Unless local people want to save them, wildlife will be poached to the point where just a few remain in fortified reserves. CAMPFIRE and CBNRM is meant to avoid this and the future of wildlife, and elephant, in communal areas rests on the success of this programme.

1.3.2 Funding and resource mobilization

Adequate and sustainable funding and provision of other resources are important to effective protection of the elephant and curbing illegal trade in elephant products. 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 elephant conservation. There may be a need for the Government to provide additional support to the conservation of elephants given the present constraints imposed by the Covid-19 pandemic, by restrictions on importing wildlife products by some countries, and by continuing poaching of elephants that is affecting the species continentally.

Financial resources deployed in the management and general conservation of elephant during the years 2016 to 2019, averaged approximately \$5.6 million per year or about \$90.00 per km² excluding administrative costs. The former rule of thumb of \$200 per km² required to effectively manage protected areas would have required a budget of \$12 million for approximately 60,000 km² of elephant range in the country. Because elephant effectively form an umbrella species where they occur, these figures would also cover the conservation and management of several other species and their habitats. More recent estimates of the funding required to achieve effective conservation of lions in Africa ^[35] indicate that three to five times more resources will now be required to sustain effective conservation and management of protected areas and the iconic species they conserve¹.

1.3.3 Coordination

i) ZPWMA

ZPWMA takes the lead in coordinating other institutions in elephant conservation activities in the country. It will convene and chair the Elephant Management Committee meetings (Annex 9.1).

ii) Elephant Management Committees

A National Elephant Management Committee and four Cluster Elephant Management Committees (Zambezi Valley, Sebungwe, Northwest Matabeleland and South East Lowveld) will be established. The National Elephant Management Committee will meet at least once annually to review progress in implementing the Action Plan. The National Committee will document that progress in implementing the Action Plan, examine any suggested revisions to the Action Plan, and make their report available to the Director General of ZPWMA.

The four Cluster Elephant Management Committees will meet at least twice in a year to review the implementation of each regional plan. The Committees will strengthen links with various bodies at national and regional levels including within the TFCA framework. ZPWMA will convene and chair the regional Committee meetings. The draft Terms of Reference for the Elephant Management Committees are provided in Annex 9.2.

ii) Elephant Coordinator

This Action Plan provides for the appointment of an Elephant Coordinator within ZPWMA who will be responsible for coordinating elephant management in the country. The Elephant Coordinator will primarily work through various Elephant Management Committees that will be established pursuant to this Action Plan. The Elephant Coordinator will liaise with the International Conservation Affairs Office within ZPWMA on international matters affecting elephant conservation and also liaise with the CAMPFIRE office for matters affecting the conservation of elephants in CAMPFIRE districts. The draft Terms of Reference for the Elephant Manager/Coordinator are provided in Annex 9.3.

1.3.4 Monitoring and evaluation

Monitoring implementation of this Action Plan will be done using the Key Performance Indicators contained in Section 4 and the regional Action Plans. The Elephant Coordinator will be responsible for monitoring the implementation of the Action Plan on a monthly and annual basis. A major evaluation of progress will be done every five years with annual assessments of progress. Monitoring and

^{1/} In a recent comprehensive review of the budgets needed to conserve lions in Africa Lindsey et al (2019) report that effective conservation has been achieved in protected areas where the expenditure is in the region of \$1,000 or more per km² and that an annual expenditure of one billion dollars will be required to conserve lions in protected areas across their range in Africa.

evaluation will be done at each area level in a given elephant region, at the regional level, and at the national level. An example of appropriate monitoring tool is indicated below in Section 5, Notes on Monitoring.

1.3.5 Links with continental (African Elephant Action Plan / SADC) and other regional initiatives

This Action Plan recognizes the existence of the African Elephant Action Plan¹ 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.

Given that the regions of Northwest Matabeleland and the Sebungwe are included the KAZA TFCA this plan will also need to link closely with the KAZA Elephant Planning Framework and KAZA structures. Similar considerations will apply in the Lower Zambezi Valley, where elephants may be shared with Zambia and Mozambique, in the South East Lowveld where they are shared with Mozambique and South Africa in the Great Limpopo TFCA, and to the west in the Mapungubwe TFCA where they are shared with Botswana and South Africa.

1.3.6 Regional strategies within Zimbabwe

The devolution of management oversight to Cluster (region) levels, with more detailed action plans within the national plan, provides the basis for effective adaptive management at Cluster and local area levels.

As set forth in the framework below (Sections 3 and 4), four regional plans have been drafted to address the unique challenges of each region and will implement the broader goals of this national Action Plan at a more specific level.

In addition, Park-level management plans for specific protected areas (including Hwange National Park, the Matetsi complex, Mana Pools National Park, Chizarira National Park, Chirisa Safari Area, Sengwa Wildlife Research Institute and Gonarezhou National Park) contribute to this Action Plan that governs the management of elephant within those protected areas.

¹ / URL: <https://www.iucn.org/ssc-groups/mammals/african-elephant-specialist-group/strategies-management-plans/african-elephant-action-plan>

BOX 3: Towards Greater Coordination with the AEAP

The African Elephant Action Plan (AEAP) was finalized and approved as a consensus document by all 37 African elephant range states in the margins of the 15th meeting of the Conference of the Parties to CITES (Doha, Qatar 13-25 March 2010).

The AEAP contains eight prioritised objectives identified as the most important measures required to protect African elephants across their range.

OBJECTIVE 1: Reducing illegal killing of elephants and illegal trade in elephant products

OBJECTIVE 2: Maintaining elephant habitats and restoring connectivity

OBJECTIVE 3: Reducing human-elephant conflict

OBJECTIVE 4: Increasing awareness on elephant conservation and management of key stakeholders (e.g. policy makers and local communities among other interest groups)

OBJECTIVE 5: Strengthening range states' knowledge on African elephant management

OBJECTIVE 6: Strengthening cooperation and understanding among range states

OBJECTIVE 7: Improving local communities cooperation and collaboration on African elephant conservation

OBJECTIVE 8: Implementing the AEAP

The objectives of the AEAP were considered and included in drafting this action plan. ZPWMA has been careful to address its international obligations in this Action Plan.

1.3.7 Protecting elephant for the future

Poaching and the illegal wildlife trade are serious concerns for all range states. Poaching has decimated elephant populations in central and eastern Africa, and in Mozambique. Although the 1997 Policy and Plan for Elephant Management in Zimbabwe did not need to prioritise law enforcement, protecting elephant for the future became a primary objective of the 2015-2020 Action Plan, and is maintained as a primary focus of resource utilisation by ZPWMA in the current 2020-2025 Action Plan. Monitoring of law enforcement effort and results together with monitoring the status and trends of all elephant populations elephants will likely remain priorities through the five period of this plan.

1.3.8 Human elephant conflict

As Zimbabwe's human population grows, elephant are being restricted to smaller areas and as their populations expand, they increasingly move out of their designated habitat, and raid crops and sometimes threaten human lives. As a result, in many rural areas where elephants exist in Zimbabwe, human-elephant conflicts are increasing, creating substantial negative attitudes to elephants and efforts to conserve them. The people living with elephants are often among the poorest rural farmers, which makes the issue complex in social and economic terms. Unresolved conflicts stimulate poaching or retaliation. Poachers or retaliators can be seen as "local heroes" because they provide meat to the communities and resolve the conflict. A major challenge for elephant management is keeping human-elephant conflicts to a minimum.

Developing a Social, Economic, and Cultural Framework has been identified as a Key Component of this Action Plan in an effort to address and reduce human-elephant conflicts.

BOX 4: Towards a Comprehensive Strategy to Reduce Human-Elephant Conflict

Some methods of reducing human-elephant conflict focus on curing the effects, not the cause. Such methods include chili sprays, fences, and evening patrols to scare off marauding elephants. However, these are not necessarily long-term solutions. Long-term solutions require growing the tolerance of local communities for elephant by ensuring the communities benefit from having elephant on their lands. Tolerance is likely to increase if communities realise and appreciate economic returns earned from the sustainable use of elephant. Economic returns may be generated by consumptive and non-consumptive tourism. The devolution of decision-making on aspects of problem animal control to communities may result in better outcomes for the management of the costs and benefits of this activity. The provision of meat and other products from wild animals can also provide an important incentive to conserve wildlife on their land.

Problem animal control includes disturbing, removing, translocating, or ultimately killing those elephant that persist in damaging crops or threatening human life. Clearly, no one management option will successfully deal with all problem elephants and conflict situations. As part of this Action Plan, ZPWMA will continue to undertake additional research on problem animal control and means of minimising conflict, and will develop new solutions and a more comprehensive response to these issues.

2. LOGIC AND STRUCTURE OF THE PLAN

The strategic framework developed at the Hwange workshop in December 2014 was 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 (**Table 2**). The structure requires a set of key performance indicators that are intended, as far as possible, to be *SMART*, i.e. Specific, Measurable, Achievable, Realistic and Time-bound. 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 2. Structure of the Action Plan for Elephant Conservation and Management in Zimbabwe

Long-term Vision	The Long-term Vision has retained the essential components of the 1997 plan and remains applicable to the period of this plan.
Targets	The three Targets included in the 1997 plan are retained but the provision to maintain or increase elephant range is not linked to a specific national benchmark as it was in 1997 because, as noted in the 2015-20 plan, this will vary in the four elephant ranges or regions
Key Components	The five Key Components are the primary themes or headings of the strategy under which the framework is organised. The ten policy and management objectives included in the 1997 plan fall within these headings and are carried forward from the 2015-20 plan to the current 5-year plan.
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 Action Plan. Outputs are therefore expressed in the past tense.
Key Activities (actions)	Key Activities represent the <i>necessary and sufficient actions</i> that need to be completed to achieve the Outputs. They are the actions on which the major emphasis should be placed. <i>National level Activities can be cast as Outputs at the regional level, with more detailed time specific activities, KPIs and budgets that more specifically designed to used at the regional or local level.</i>
Key Performance Indicators (KPIs)	The 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	In order to monitor and verify KPIs It is necessary to clearly establish, at the outset, how they can be tracked and verified. Equally important is the need for monitoring protocols to be standardised across local and regional levels so that national and regional statistics can be compiled to assess performance against KPIs. This will then allow valid comparisons of performance across regions and local areas to be made.
Baselines for KPIs	This is a five-year Action Plan and it will be necessary, at the outset, to establish the baselines against which progress against each KPI can be assessed. Progress should be assessed annually (Section 5 provides a format for doing so).
Implementation Strategy	ZPWMA, the Elephant Coordinator and the Elephant Management Committees will need to interact and collaborate with a wide range of agencies and stakeholders in the implementation of this Action Plan.

The top-level strategic components of the Action Plan encompassing the Long-term Vision, Targets, Key Components, Strategic Objectives and Outputs are summarised in Section 3 below. The top-level components of the plan are then followed by a set of tables in Section 4 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 continuing development of Regional/Cluster 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/cluster level. These Outputs have generated more detailed regional/cluster and local specific activities and actions with specific KPIs and means of verification.

The four regional/cluster Elephant Action Plans that were developed in 2015 were reviewed and updated between March-July 2020 by stakeholders and continue to form an essential part of the National Action Plan and they are included as Annexes 9.4 to 9.7.

Abbreviations in Action Plans for responsible positions in PWMA

DG	Director General ZPWMA
DDGC	Deputy Director General- Conservation
CM	Cluster Manager
CET	Chief Ecologist – Terrestrial
IM	Investigations Manager
AM	Area Manager
TEs	Terrestrial Ecologists (at Cluster or Area level)
CLESM	Community Liaison and Extension Services Manager

Other Agencies

JOC	Joint Operations Command
ZRP	Zimbabwe Republic Police
RDCs	Rural District Councils
CSOs	Conservation Support Organisations

3. VISION, TARGETS, AND KEY COMPONENTS

Long-term Vision: To conserve elephants at levels that will enable them to contribute to the conservation of biodiversity, national development and Zimbabwe's cultural heritage

Targets:

1. To maintain at least four demographically and genetically viable elephant populations in Zimbabwe
2. To maintain or increase core protected range of elephant in Zimbabwe
3. To maintain numbers / densities of elephant at levels that do not adversely impact on biodiversity conservation goals while contributing to economically viable and sustainable wildlife-based land uses in Zimbabwe

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 Programme Management
Strategic Objectives	Objective 1. Ensuring effective protection of all populations of elephant in Zimbabwe	Objective 2. Implementing effective biological and ecological management to achieve populations that are within upper and lower acceptable limits in numbers, impacts, and distribution	Objective 3. Implementing evidence-based strategies that enhance the contribution of elephant to rural livelihoods and national development	Objective 4. Ensuring that sufficient and appropriately trained personnel, equipment, infrastructure, and financing are mobilised, available and are used efficiently and effectively	Objective 5. Ensuring effective coordination and collaboration with national and international stakeholders to achieve these strategic objectives
Outputs	Output #1: Management actions, security and law enforcement to minimise illegal losses of elephants and their habitats from all populations implemented	Output #2: Adaptive management to achieve viable populations, within acceptable limits, in all four sub-populations implemented	Output #3: Economic benefits/costs of elephants investigated, incentives for living with elephants, increased and the distribution of financial returns improved	Output #4: Sufficient numbers of trained, equipped, resourced, motivated, and effective, personnel are deployed and operational	Output #5: Coordination mechanisms to assess and review progress in adaptive elephant population management and strategic planning established and operating

4. ACTION PLANS

4.1 PROTECTION AND LAW ENFORCEMENT - Ensuring effective protection of all populations of elephant in Zimbabwe

Output: Management actions, security and law enforcement to minimise illegal losses of elephants and their habitats from all populations implemented

KPI: Illegal losses of elephant from at least 90% of elephant populations reduced to less than 5% by 2025, and less than 5% of elephant habitats encroached by settlements by 2025

MV: National level monitoring data on illegal activity, successful convictions, carcass records, record of all national mortalities, status and trends of all elephant populations; verified data on extent of encroachment on, or recovery of, available elephant habitat

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. For each regional population establish highly trained rapid response anti-poaching units for deployment to areas under threat	1. A fully equipped and resourced rapid response unit established and operating jointly with ZRP in each region by December 2021 – <i>if not already in place and operating</i>	Inception report for each unit Monthly reports on operations from each unit Number of joint operations	By Dec 2021	ZPWMA / ZRP DG, DDGC, CMs
2. Enhance and support Informer systems at national, cluster, and local area levels	1. An active informer system/network operating within each cluster at both cluster and local levels by Dec 2020 - <i>if not already in place and operating</i> 2. National level informer system targeting middle men and higher crime syndicates operating by Jun. 2021 - <i>if not already in place and operating</i>	Operational reports Records of arrests and successful prosecutions resulting from informer reports Records of payments for information	By June 2021	DDGC, IM, CMs, AMs
3. Improve investigation and prosecution of crimes through training and collaboration with ZRP and Judiciary	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 2020 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	DDGC, IM, CMs, AMs

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Set up, resource, and maintain national and local intelligence databases	1. National, regional and local databases recording and analysing illegal activity (nature, time and locality of activity and profiles of those involved if known)	Inspection of, and outputs from, operating databases	Immediate and ongoing	DDGC, IM, CMs, AMs
5. Enhance social (community) involvement in law enforcement through incentive schemes and introduction of hotlines for reporting wildlife crime	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. 2021 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
6. Reduce illegal settlement in all wildlife areas	1. Illegal settlements reduced to less than 5% of wildlife areas by 2025 (i.e. state and community protected areas)	Records and maps of illegal settlements and of wildlife land recovered	Ongoing to 2025	DG, CM, AMs, CET, CAMPFIRE Assoc. RDCs
7. Ensure full compliance with hunting and guiding regulations and quotas set	1. Quota setting models reviewed and, if necessary, revised models implemented by Jan. 2021	Proceedings of workshop and revised models Record of infringements and penalties and analysis of trends	Immediate and ongoing	DG, DDGC, CMs, IM, and SOAZ, ZHA, ZPGHA
8. Enhance international and transboundary collaboration in law enforcement	1. Quarterly meetings on law enforcement collaboration and activities between law enforcement agencies of neighbouring countries established at regional / transboundary park level by July 2021 - if not already in place and operating 2. Broader collaboration with Interpol, TRAFFIC, TWENS, and other international law enforcement entities	Minutes of meetings Record of joint cross border law enforcement activities Records of participation in workshops, TWENS, etc.	June 2021 Immediate and ongoing	DC, CMs, IM, AMs, TFCA Coordinator

An example of a National level **Activity** being used as an **Output** at the regional level is provided below. The example is drawn from the Action plan for the Sebungwe region. It can be seen that what was an Activity (#2 in the table above) at the national strategic level can 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.

Example extracted from Sebungwe regional plan

LAW ENFORCEMENT						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative Costs	Lead agency
2. 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/ZRP

4.2 BIOLOGICAL MONITORING AND MANAGEMENT - Implementing effective biological and ecological management to achieve viable elephant populations that are within upper and lower acceptable limits to change in numbers and distribution

Output: Monitoring programmes and research to support science based adaptive management of elephants in all populations implemented

KPI: Elephant population within each sub-region/cluster is genetically and demographically viable and within the preferred lower and upper limits in 2025

MV: Results of aerial and other censuses and analyses of population structure and viability

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Monitor elephant population dynamics - numbers, structure, mortality, including spatial and temporal trends, using aerial, ground and ranger based methods among others	1. Elephant population parameters and carcass ratios estimated and distribution determined from aerial surveys at least every three years for each regional population 2. Records available for all areas of all elephant deaths with data on dates, locations, cause of death, reason killed (safari hunting, problem animal control, natural mortality, management, illegally killed elephants, etc.), age, sex, tusk size	1. Survey and patrol reports 2. Database 3. Completed annual returns for elephant mortality from all areas	1. Next aerial surveys due before Nov 2021 2. Immediate and ongoing	DG, CET, CMs, AMs, CSOs
2. Monitor impacts of elephants on habitats and diversity of selected indicator plants and animal species	1. Annual trends in tree canopy cover 2. Annual trends in species diversity 3. Annual trends in status of selected plant and animal indicator species	Monitoring reports and Database	Ongoing Annual reviews	DDGC, CET, TEs
3. Use research findings, expert opinion and informed public opinion to establish upper and lower thresholds of potential concern (TPCs) to initiate management action in respect of elephant impacts on protected areas, indicator species, and socio-economic indicators (e.g. HEC)	1. Thresholds of potential concern (TPCs) established for at least five key areas / habitats by June 2022 and selected biological and socio-economic indicators of change measured at least every two years	Documented TPCs, and monitoring records and associated database on recommendations for management action/inaction	Start by Dec 2021 and ongoing through to Dec 2025	DG, DDGC, CET, Universities (MOUs) and Researchers
4. Carry out appropriate management actions when populations exceed, or are projected to exceed, TPCs	1. Management actions taken in relation to TPCs being exceeded (e.g. manipulate water supplies)	Records of management actions considered, and actions taken	By July 2022 if not before depending on TPCs	DG, DDGC, CET, TEs, CM, AMs, CSOs

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
5. Monitor age and quality of trophies and adjust quotas to maintain desired levels of trophy quality	<ol style="list-style-type: none"> 1. Database and field recording protocols and forms established and continues to operate 2. Annual analysis of trophies taken as % of quota, and trend in trophy quality and ages of trophies 	<p>Consolidated annual records of trophies taken</p> <p>Annual report of trophy quality by region for quota setting workshop</p>	Dec. 2021, then annual and ongoing	DDGC, CE, AMs, SOAZ
6. Re- define current elephant range and explore options for extending range and maintaining connectivity between fragmented populations	<ol style="list-style-type: none"> 1. Map of current elephant range based on most recent survey results and other information available 2. Estimates every two years of range expansion / contraction for each region based on all available information 3. Use and effectiveness of corridors assessed, inter alia, from aerial surveys, ground sightings and reports, satellite collared animals 	<p>Current estimate of elephant range and subsequent bi-annual estimates and associated maps</p> <p>Reports on elephant locations from ground and aerial sightings</p>	Initial map by Jul 2021 Immediate and at bi-annual intervals	DDGCC, CE, RMs, AMs in conjunction with SOAZ, ZPGHA and CAMPFIRE Association
7. Reporting to international monitoring systems (e.g. AED, ETIS, and MIKE)	<ol style="list-style-type: none"> 1. 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 obligation	DDGC, CET, CM
8. Recognising the long response time of elephants to management interventions, use modelling to project alternative outcomes or scenarios of management	<ol style="list-style-type: none"> 1. Number of instances in which predictive simulation models were used to project alternative outcomes of elephant management actions 	Management and associated modelling reports	Start in March 2021 and Ongoing	CET, TEs, CSOs External Researchers

4.3 SOCIAL, ECONOMIC AND CULTURAL FRAMEWORK - Implementing evidence-based strategies that enhance the contribution of elephant to rural livelihoods and national development

Output: Economic benefits/costs of elephants investigated, incentives for living with elephants, increased and the distribution of financial returns improved

KPIs: 1. Cost benefit analysis of elephants completed 2. Annual assessment of elephant derived benefits reveals that benefits are increasingly dispersed more equitably between deserving stakeholders and the contribution to national development is assessed. 3. Trends in elephant numbers and human wildlife conflict in non-protected areas assessed and reduced.

MV: Report on annual assessment of the distribution of revenues from consumptive and non-consumptive use of elephants and record of HEC incidents

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Conduct benefit/cost analyses of elephants as a component of land use in protected and non-protected landscapes in the four elephant regions in Zimbabwe	Assessment study and report produced by Dec 2021	Assessment n Report	2021-2022	ZPWMA DG and Independent Consultant
2. Provide incentives and promote partnerships and joint venture opportunities to strengthen elephant management, including across land use boundaries	1. Policy instruments that demonstrate and establish incentives to conserve elephants 2. Higher levels and growing trends of private and community investment in elephant conservation measures 3. Lower number of poaching incidents/ higher number of arrests based on prior information and leads from communities / land holders	Documented policies and list of operating partnerships / joint ventures that promote elephant conservation and management Record of investments in elephant conservation measures assembled by elephant programme manager/ coordinator	Ongoing	DG, CA, RDCs, Private sector
3. Explore additional elephant-based tourism and sustainable utilization opportunities	1. Higher number of elephant-based tourism and / or sustainable use projects established (e.g. PPCPs)	Record of projects initiated and their success rates	Ongoing	DG, CA, RDCs, Private sector
4. Facilitate the transparent distribution of the benefits and costs of elephant management and conservation	1. Policy instruments adopted that result in more transparent and equitable benefit distribution than benchmark assessed in 2015	Annual record of distribution of elephant derived benefits (revenue, development projects, products received by beneficiaries) and costs of elephant conservation	Ongoing	DG, CA, RDCs, Private sector

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
5. Implement effective techniques and land use strategies, and protocols to mitigate human-elephant conflict	<ol style="list-style-type: none"> Higher levels of investment (funds and manpower) provided for mitigating human elephant conflict by ZWMA, communities and partners Protocols for land use and HEC developed and implemented by June 2022 Conduct research and develop strategy for wildlife-based land use systems and promotion of the establishment of community conservancies for areas within the elephant range with high human population densities and human settlements 	<p>Records of human-elephant Conflict incidents (in HEC Database)</p> <p>Summaries from human-elephant conflict database reported at annual meetings of Elephant Management Committees</p> <p>Research report on strategies to develop wildlife-based land used system</p>	<p>Protocols developed by June 2022 and ongoing</p> <p>Research report by Dec. 2022</p>	DG, CA, RDCs, Traditional Leaders, Private sector, CLESM
6. Promote effective recovery and use of all products from dead elephants	<ol style="list-style-type: none"> Proportion of dead elephants from which products were recovered Revenue from products recovered 	Records of items recovered, and revenue realised from raw products	Ongoing	AMs, RDCs, Private sector
7. Include information on elephants and their conservation in school curricula and promote environmental education in rural areas adjacent to key elephant populations	<ol style="list-style-type: none"> Number and quality of elephant information packages developed and delivered to schools Proportion of schools in, or neighbouring, elephant areas receiving and using information on elephants 	<ol style="list-style-type: none"> Information packages developed Reports of delivery and use of elephant conservation information packages 	By June 2022 and Ongoing	CLESM
8. Develop and implement an effective communication strategy for local, regional and international	Information strategy developed and launched by June 2021 – <i>if not already in place in which case review and update</i>	Information strategy document	By June 2021 if not already operating and ongoing	DG, PRM

Notes: 1. Depending on the results of Activity #1, Activity #2 will require further examination both in terms of policies that may be required and in terms of the precise mechanisms that may be introduced to encourage more active participation by a range of stakeholders in the conservation and management of elephants (and wildlife in general).

2. Activity #4 includes components of capacity building in partners/stakeholders in order for them to take on additional responsibilities that will merit a greater share of benefits.

4.4 BUILDING CONSERVATION CAPACITY - Ensuring that sufficient and appropriately trained personnel, equipment, infrastructure and financing are mobilised, available and used efficiently and effectively

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

KPI: Law enforcement, monitoring and research, and extension staff are trained, equipped and supported at levels that enable them to be effectively deployed to implement this action plan as specified in the activities under components 1, 2, 3 and 5

MV: The KPIs established for components 1,2 3 and 5 are being met, staff training records, equipment/infrastructure registers, staff deployed specifically for elephant conservation, management and extension.

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Secure funding to initiate and maintain the full implementation of this Action Plan	1. Funds and allocated budget for elephant conservation meet annual requirements for effective conservation as measured by KPIs for activities 2-8 below and those of Components 1, 2, and 3 2. More than 75% of revenue derived from, or for, elephants channelled into elephant conservation and management	Record of funds available (USD) and investment by ZPWMA, Private sector, NGOS, and CAMPFIRE in elephant conservation measures (Compiled annually by Elephant Manager)	Immediate and ongoing through to 2025	DG, EM
2. Establish sustainable funding programs to build and maintain necessary human resources to strengthen elephant conservation and management capacity	1. Manpower density for protection of elephant (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 5 Notes on monitoring,	Consolidated record of number of field personnel and days operating (law enforcement, research and monitoring, elephant management) for each area in the elephant 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 Elephant Management Committees bi-annually	By June 2021 Immediate action for some key areas (e.g. Sebungwe and Zambezi Valley) and by June 2022 for all regions	DG, DDGC, CMs, AMs, TEs
3. Analyse current capacity and identify needs	1. Current capacity assessed, needs identified and plan developed to meet needs	Assessment and needs report	By Dec. 2021	DDGC, CET, HMS, HRM, CMs, AMs

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Maintain and/or initiate continuity in research and monitoring necessary for the conservation and adaptive management of elephants and habitats	1. Number of research programs 2. Research-person days spent on monitoring / assessing elephant impacts in relation to TPCs 3. Research person days spent on monitoring elephant population parameters in each population/region	Research reports and papers on elephant conservation and management	Ongoing	DDGC, CET
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 2021 and 50% by July 2023	Staff register, budget allocations, Asset register, research permits issued, MOUs with collaborators, reports and published papers on elephant conservation and management	Immediate and ongoing through 2025	DDGC, CET
6. Establish training and in-service retraining of personnel in law enforcement, research and monitoring, education and awareness, community elephant management, etc.	Increased levels (50 to 100%?) compared to June 2022 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	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 2025	DDGC, CET, HMS, HRM
7 Provide the housing, infrastructure, and equipment needed for staff to effectively conserve and manage elephant	1. Audit of current status of housing, infrastructure, and equipment completed by June 2021 2. Action taken each year to remedy shortfalls and gaps identified	1. Audit reports 2. Annual reports on improvements made to housing, infrastructure and equipment	By June 2021 and annually	CMs, AMs, CSOs
8. Strive to achieve best standards for elephant management, including any forms of utilization	1. Best standards for elephant management in Zimbabwe, based on international standards, drafted and distributed to all practitioners	Record of best practices complied with/ not complied with	By June 2021 and ongoing	DG , DDGC, CET, HMS
9. 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	CET, HMS

4.5 COORDINATION, COLLABORATION AND PROGRAMME MANAGEMENT - Ensuring effective coordination and collaboration with national and international stakeholders to achieve these strategic objectives

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

KPI: National Elephant Coordinator appointed and national and regional elephant conservation committees with appropriate stakeholder participation appointed and information dissemination programme in place

MV: National Coordinator monthly reports, minutes of committee meetings and planned actions completed

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
1. Establish a national elephant conservation & management steering/implementing committee that includes stakeholders 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 June 30 th 2021	DDGC, EC
2. Establish four regional management committees to meet at least twice each year and implement regional plans	1. Four regional committee functional and meeting twice a year 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 meetings before 30 th June 2021 Regional plans completed by 30 Oct.	CMs, AMs
3. Technical support team to assist in implementation of the plan established and operational	Team of 5 to 7 experienced scientific/technical volunteers/CSOs established by Jul 2021	Records of appointment and their operations	Ongoing	DG, EC

Key Activities/Actions	Key Performance Indicators	Means of Verification	Time Frames	Responsibility
4. Strengthen links with neighbouring states to confer on the management of shared elephant populations, particularly in relation to TFCA populations	1. Consultative meetings held with neighbouring states on shared elephant 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, DDGC, TFCA Coordinator, CMs
5. Establish a full-time* Elephant Coordinator to be responsible for coordinating the implementation of the Action Plan	1. Elephant manager appointed with full terms of reference 2. Monthly reports from elephant manager on implementation	Elephant manager's contract and date of appointment Record of reports by the person in the elephant management position	Immediate and by March 2021	DG, EM
6. Strengthen coordination between the hunting industry and the elephant management programme	1. Regular meetings and a workshops convened with the hunting industry on hunting and elephant management issues 2. Key issues resolved by June 2021	Record of meeting and workshop proceedings Record of elephant hunting issues resolved	Immediate and ongoing	DDGC, EM
7. Implement an effective information dissemination and communication strategy, including regular progress reports on the implementation of the plan	1. Outreach programmes conducted 2. Information packages produced on elephant conservation 3. Research papers published	Reports, brochures, flyers, web site Published papers	Ongoing	PRM, CET, HMS

- This position, if full-time, could perhaps be one that oversees and reports on all species management plans (i.e. Elephants and Carnivores)

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 be in a form that can be aggregated from field to head office level to provide local, regional and national level statistics of progress in elephant conservation and management.

The following table (adapted from the Zimbabwe Rhino Policy and Management Framework of 2011-2016 and used in the 2015-2020 EMP) provides an example of the data that needs to be compiled for each population to gauge progress in population status, performance and law enforcement effort.

SEE NOTES BELOW	Name of person completing this data form					
	Date on which this data form was completed					
	Name of area covered					
	Size of area in km ²					
	YEAR	2021	2022	2023	2024	2025
	Date of aerial census population estimate					
	Aerial census elephant population estimate (number)					
	Aerial census carcass ratio (%)					
	No of natural mortalities					
	No of tusks recovered					
No killed illegally						
No killed on PAC						
No killed for rations						
No killed on trophy hunts						
No of carcasses found that died in previous years						
	Total mortalities					
1	No of elephant poaching incursions/attempts detected					
	No of incursions/poaching attempts intercepted					
	Elephant 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 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 and/or rhinos, or attempted incursions that were intercepted before they took place
2	Mandatory sentences for elephant / rhino 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 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 under age trophies, exceeding quotas, transfers of quotas from other areas, hunting from vehicles, etc.

An additional set of indicators to monitor elephant population structure, and impacts on selected indicator species and habitats, needs to be developed and used (See activities 1 and 2 under Biological Monitoring above).

There is also a requirement to annually assess progress in implementing plan outputs and activities in relation to the KPIs that have been developed. This can be readily accomplished by replacing the Timeframe, Indicative inputs/costs, and Lead agencies, columns with a single column as was done for the Supplementary Plan in 2016 and the review of progress in 2019, with the heading of “Progress in Implementation as of January 2021” for example.

Example for assessing progress at National Level:

4.2 BIOLOGICAL MONITORING AND MANAGEMENT - Implementing effective biological and ecological management to achieve viable elephant populations that are within upper and lower acceptable limits to change in numbers and distribution

Output: Monitoring programmes and research to support science based adaptive management of elephants in all populations implemented

KPI: Elephant population within each sub-region/cluster is genetically and demographically viable and within the preferred lower and upper limits in 2025

MV: Results of aerial and other censuses and analyses of population structure and viability

Key Activities / Actions	Key Performance Indicators	Means of Verification	Baseline (2020) Status and Trends 2021 and Progress achieved in 2021
1. Monitor elephant population dynamics - numbers, structure, mortality, including spatial and temporal trends, using aerial, ground and ranger based methods among others	1. Elephant population parameters and carcass ratios estimated and distribution determined from aerial surveys at least every three years for each regional population 2. Records available for all areas of all elephant deaths with data on dates, locations, cause of death, reason killed (safari hunting, problem animal control, natural mortality, management, illegally killed elephants, etc.), age, sex, tusk size	1. Survey and patrol reports 2. Database 3. Completed annual returns for elephant mortality from all areas	<i>Note: If applicable the baseline for the following year (e.g. 2022) would be reset depending on the trends realised or progress achieved in 2021</i>
2. Monitor impacts of elephants on habitats and diversity of selected indicator plants and animal species	1. Annual trends in tree canopy cover 2. Annual trends in species diversity 3. Annual trends in status of selected plant and animal indicator species	Monitoring reports and Database	

Example for assessing progress at Regional/Cluster Level

9.4.2. Biological Monitoring and Management (North West Matabeleland)			
Output	Activities	Key Performance Indicators	Baseline (2020) Status and Trends 2021 and Progress achieved in 2021
2.1 Elephant population numbers, structure, mortality (using aerial, ground, and ranger based methods) regularly monitored	- Carry out regular surveys - Carry out aerial monitoring of wildlife and illegal activities - Adopt standardized databases for all stations, forest areas, and RDCs in NWM - Introduce ranger-based monitoring across all stations in NWM - Analyse the data and report on trends - Annual water hole count continued	- Information on trends in elephant numbers, population structure, mortality and distribution analysed and reported annually	.

Both forms would be used in landscape format.

6. CONCLUDING COMMENT

This is an ambitious plan that will continue to require the cooperation of all stakeholders to achieve its aims. It is being updated and re-launched in the midst of the Covid-19 pandemic – a situation that imposes even greater challenges than have been experienced during the previous five years. The provision in the plan for regional/cluster elephant management committees that include representative from the range of stakeholders that have a strong interest in elephant conservation is a major step in devolution of responsibility. More importantly it provides for a feedback loop that is shorter and closer to the action on the ground and so should facilitate responsive and timely management.

Implementing this action plan, together with those for rhino, lion and other carnivores will likely require more human and financial resources than are currently available for the conservation and management of these and other iconic species in Zimbabwe. An ongoing requirement is for fully equipped men on the ground to combat illegal killing of elephant, improved monitoring and research, and incentives to maintain, if not increase, elephant range. The likely resources required to cover the ground effectively will amount to at least US \$12,000,000 per annum in **operational** budget alone to protect and monitor the nearly 60,000 km² of elephant range in the country. The relationship between successful conservation and management of protected areas and resources required (Lindsey et al 2019) indicates that even greater resources will be required.

Elephant are an ecologically and economically keystone species and, if effectively conserved and managed, will act as an umbrella species for the conservation of a full range of wildlife within their range. Continuing investment in elephant conservation will have wide-ranging effects on wildlife conservation in Zimbabwe.

These considerations, together with the challenges that have been imposed by the Covid-19 pandemic, suggest that a further injection of substantial funding will be required to fully implement this second phase of the Action Plan while providing the basis for a much wider investment in biological conservation.

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9. ANNEXES

9.1 TERMS OF REFERENCE FOR THE NATIONAL ELEPHANT MANAGEMENT COMMITTEE

Function: To annually review progress in implementing the Action Plan for Elephant Management and Conservation in Zimbabwe; to review and, if necessary, update the scientific and technical components of the Action Plan to ensure it remains based on current evidence; to review budget and policy decisions by the Elephant Coordinator and Regional Elephant Management Committees; to advise the Ministry of Environment, Climate, Tourism and Hospitality Industry and the Parks and Wildlife Management Authority on matters relating to national and international issues concerning elephant conservation; to assume overall advisory responsibility for elephant conservation and management in Zimbabwe.

Role of Individual Committee 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 elephant conservation;
- Being committed to and actively involved in furthering the implementation of an effective evidence-based Action Plan;
- Being willing to suggest changes to the Action Plan or any regional action plan to achieve efficiency and effectiveness.

Duties: The Committee's primary responsibilities include:

- Advising on major technical decisions concerning elephant conservation and management;
- Reviewing and informing the committee on the scientific basis of current elephant management activities in Zimbabwe and elsewhere;
- Providing advice on elephant management policy and its implementation;
- Advising the Elephant Coordinator and PWMA on sourcing of funds;
- Monitoring funding, expenditure and its effectiveness.

Composition: The members of the National Elephant Management Committee include:

- Director General ZPWMA (Chair);
- Elephant Coordinator (Secretary);
- Representatives of PWMA, METCHI, CAMPFIRE, ZRP, SOAZ, ZPHGA;
- Independent scientific and technical advisors;
- Sub-committees to deal with specific issues may be formed.

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 Elephant Coordinator will keep Minutes with resolutions, and action points. Minutes will be circulated within one month of Committee meetings.

Actions may be taken without a meeting by a signed unanimous consent circulated, compiled, and maintained by the Elephant Manager.

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

9.2 TERMS OF REFERENCE FOR THE REGIONAL ELEPHANT MANAGEMENT COMMITTEES

Function: To semi-annually review implementation of each regional action plan; to review budget and policy decisions in each specific region; to strengthen links with various bodies at the national and regional levels (including within the TFCA framework).

Duties: Each regional Committee's primary responsibilities include:

- Ratifying major technical decisions concerned with elephant conservation and management in the specific region;
- Developing and implementing elephant policy in the specific region, in keeping with the regional action plan and national Action Plan;
- Developing and implementing elephant policy in the specific region, in keeping with the regional action plan and national Action Plan;
- Ensuring the successful implementation of all required actions;
- Advising the Elephant Manager, PWMA, and regional stakeholders on sourcing of funds;
- Liaising with regional stakeholders to appropriately represent concerns and local issues at the national level;
- Participating in quota-setting for the region.

Composition: The members of each regional Committee will include:

- ZPWMA (Chair)
- Area Ecologist (Secretary)
- Elephant Coordinator
- Senior Park Wardens
- Research Scientists

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

Minutes and Meeting Papers: Minutes will be kept by the Secretary. Minutes will be circulated within one month of Committee meetings. Resolutions and action points will be kept by the Secretary.

Actions may be taken without a meeting by a signed unanimous consent circulated, compiled, and maintained by the Secretary.

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

9.3 TERMS OF REFERENCE FOR THE NATIONAL ELEPHANT COORDINATOR

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

Duties: The Elephant Coordinator's duties include:

- Coordinating major technical decisions concerned with elephant conservation and management;
- Developing and implementing elephant policy;
- Ensuring the successful implementation of all required actions;
- Advising the Elephant Committees;
- Convening technical/scientific working groups when needed;
- Liaising with stakeholders;
- Collecting, collating and disseminating required reports under the Action Plan;
- Secretary to the National Elephant Management Committee

The following regional action plans are appended below

9.4 Northwest Matabeleland Elephant Management Action Plan

9.5 Sebungwe Elephant Management Action Plan

9.6 Mid-Zambezi Valley Elephant Management Action Plan

9.7 South East Lowveld Elephant Management Action Plan

ANNEX 9.4 Northwest Matabeleland Action Plan

9.4.1. Protection and Law Enforcement (Northwest Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
1.1 At least two highly trained rapid response anti-poaching units established/ strengthened	<ul style="list-style-type: none"> - Assess / audit current law enforcement capacity, prioritise needs - Mobilise resources to meet shortfalls in personnel and equipment and new technology - Recruit rangers, train and retrain staff - Review / establish Standard Operating Procedures (SOPs) for all law enforcement operations 	<ul style="list-style-type: none"> - Assessment of enforcement capacity completed by Dec 2020 - Two fully staffed and trained anti-poaching units in place and operating by June 2021 - SOPs established and being implemented by Dec 2020 - Trends in illegal killing of elephants documented 	<ul style="list-style-type: none"> - Assessment report - Staff recruitment and training records - Monthly and annual reports of law enforcement operations - Illegal activity reports and records 	Immediate and Fully operation by June 2021	<ul style="list-style-type: none"> - Staff salaries - Vehicles and T&S - Equipment 	ZPWMA - Cluster Manager (CM) & Area Managers (AMs) Forestry Commission (FC) ZRP
1.2 Informer network, investigation unit and intelligence system strengthened / established and operating	<ul style="list-style-type: none"> - Recruit informers and contacts and provide appropriate incentives to support their input - Recruit and train investigators and deploy strategically - Set up anonymous whistle-blowing system (through hotline) - Carry out awareness campaign within communities on value of conservation and how to report illegal activity (to stimulate social involvement) - Establish intelligence database 	<ul style="list-style-type: none"> - Number of arrests based on information from intelligence system - Number of investigators recruited and trained - Number of calls to whistle blowing system that result in effective follow up - Number of incursions reported on by local communities and reacted to by ZPWMA/ZRP 	<ul style="list-style-type: none"> - Inspection of informer reports / database - Records and reports of training session - Whistle-blower system reports - Records / reports 	Updated and fully operational by June 2021	<ul style="list-style-type: none"> - Staff salaries - Vehicles and T&S - Rewards and payments to informers - Telecommunications costs - 	ZPWMA, CM & AMs FC ZRP

9.4.1. Protection and Law Enforcement (Northwest Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
1.3 Investigation and prosecution of wildlife crimes improved	<ul style="list-style-type: none"> - Establish Standard Operating Procedures (to include guidelines in collaboration with ZRP, Prosecutors, Magistrates, EMA, etc., and evidence gathering - Maintain and continue to build relationships with the above - Identify gaps (e.g. ballistics and forensics) and solicit external expertise - Establish regular training and retraining schedule - Procure / hire specialized equipment that may be required 	<ul style="list-style-type: none"> - Proportion of arrests leading to prosecution - Proportion of successful prosecutions 	<ul style="list-style-type: none"> - Court records - Law enforcement data base 	SOPs to be established within 3 months. On going	Training costs Expert costs Specialized equipment	ZPWMA - CM & AMs, Training Unit FC ZRP Judiciary Conservation Support Organisations (CSOs)
1.4 Database that is compliant with national database established	<ul style="list-style-type: none"> - Set up SMART databases at Cluster HQ and field stations that can feed compliant information through to regional and national databases - Train staff in appropriate data collection, data capture and analysis, and reporting using standardised recording forms and procedures (SOPs) - Include Forestry Commission and RDCs, MIKE 	<ul style="list-style-type: none"> - Databases bases established and operational - Recording protocols (SOPs) in place and being used - Distinction between illegal elephant related incidents and operations and those related to other species in place 	<ul style="list-style-type: none"> - SMART database system set up and operating - Reports from database being generated, are available and being used in decision making 	Immediate and operating throughout 5 year period of the plan	Computers and software Database design and roll out Training	ZPWMA, CM, AMs and Training unit FC RDCs CSOs
1.5 Joint law enforcement operations within the NWM region	<ul style="list-style-type: none"> - Conduct joint operations within country and transboundary operations - Convene joint meetings of law enforcement agencies - Conduct awareness campaigns for other law enforcement agencies - Agree on operational order / SOPs (including information sharing) 	<ul style="list-style-type: none"> - Number of joint operations leading to arrests and successful prosecutions - Number of meetings held per year - Number of successes from shared wildlife crime information 	<ul style="list-style-type: none"> - Minutes - Joint operation reports - Records - Manpower involved (by agency) 	Immediate and on going Meetings: Quarterly and Monthly (cross-border)	Meeting costs (T&S, etc.) Operational costs	ZPWMA – CM and AMs ZRP ZDF FC RDCs
1.6 Full compliance with hunting and guiding regulations enforced	<ul style="list-style-type: none"> - Ensure all operators within the region are fully aware of regulations 	Implementation of revised quota setting models in the NWM	Proceedings of hunting workshop and revised models Record of infringements and penalties and analysis of trends	Immediate and ongoing	Staff time and meeting costs	ZPWMA, CM & AMs FC, Ecologists SOAZ, ZPGHA ZHA

9.4.1. Protection and Law Enforcement (Northwest Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
	- Appropriate measures are taken to fine / apprehend / prosecute breaches of regulations					
1.7 Illegal settlement / human encroachment in designated wildlife areas reduced / reversed	<ul style="list-style-type: none"> - Liaise with RDCs, Traditional Leaders, ZRP and DA's office, and Lands Office - Conduct awareness, education, extension programmes in areas affected - Conduct regular satellite monitoring of areas likely to be affected 	<ul style="list-style-type: none"> - Annual measures and reports of extent (ha) of designated wildlife areas in NWM that are settled in relation to baseline boundaries established in the 1975 P&W Act 	Satellite / Google Earth monitoring records and reports of changes	Immediate and checked annually	Satellite imagery Costs of Meetings Awareness and educational materials for neighbours	ZPWMA – CM, AMs, Ecologists FC, RDCs Traditional Leaders
1.8 Collaboration in law enforcement with neighbouring countries established and through KAZA and LEAP programme	<ul style="list-style-type: none"> - Convene joint meetings of law enforcement agencies - Agree on and strengthen standard operational procedures and information sharing between KAZA countries - Conduct joint cross border operations 	<ul style="list-style-type: none"> - Agreed SOPs for cross border law enforcement operations - Number of joint operations leading to arrests and successful prosecutions 	<ul style="list-style-type: none"> Minutes of joint meetings Record of agreed SOPs Reports of cross border operations Record of arrests and prosecutions 	Immediate and ongoing	Travel and meeting costs	ZPWMA, FC ZRP JOC

9.4.2. Biological Monitoring and Management (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.1 Elephant population numbers, structure, mortality (using aerial, ground, and ranger based methods) regularly monitored	<ul style="list-style-type: none"> - Carry out regular surveys - Carry out aerial monitoring of wildlife and illegal activities - Adopt standardized databases for all stations, forest areas, and RDCs in NWM - Introduce ranger-based monitoring across all stations in NWM - Analyse the data and report on trends - Annual water hole count continued 	<ul style="list-style-type: none"> - Information on trends in elephant numbers, population structure, mortality and distribution analysed and reported annually 	<ul style="list-style-type: none"> - Databases and monthly and annual reports 	<ul style="list-style-type: none"> Aerial survey at least every 3 Ground and waterhole counts annually Illegal activities and ranger patrol ground counts reported monthly Database and monitoring reports monthly 	<ul style="list-style-type: none"> Aerial survey – USD 150,000 Computers and software Training in SMART, MIKES, etc. Travel & Subsistence and equipment 	<ul style="list-style-type: none"> ZPWMA FC, Ecologists Research Partners
2.2 Impacts of elephants on selected habitats, selected indicator plant and animal species, in relation to seasonal water distribution assessed and monitored	<ul style="list-style-type: none"> - Measure and monitor vegetation indicators, e.g. woodland cover and changes in specific species e.g. Baobabs - Measure and monitor functional biodiversity indicators, e.g. bird species richness and responses to structural changes in woodlands - Assess historical and current availability and distribution of water and its impacts on elephant densities and their impacts on biodiversity 	<ul style="list-style-type: none"> Elephant impacts on selected habitats monitored, analysed and reported Elephant impacts on indicator species measured, analysed and reported Research program on water supplies and elephant impacts supported and operating by June 2021 	<ul style="list-style-type: none"> Copies of research and monitoring reports Analyses of Camera Trap data 	<ul style="list-style-type: none"> A critical research programme for informing long term management of water supplies and elephant impacts in NWM 2020-25 	<ul style="list-style-type: none"> Staff salaries and T&S Field equipment Aerial photos (1950s to 1980s) and satellite imagery (1970s to 2020s) 	<ul style="list-style-type: none"> ZPWMA Ecologists FC Research partners CSOs
2.3 Distribution and trends in the provision of artificial water supplies audited and monitored	<ul style="list-style-type: none"> - Complete an audit of current status of artificial water supplies being provided for elephants and other wildlife - Monitor changes in the provision and availability of artificial water supplies across the wildlife landscape of NWM 	<ul style="list-style-type: none"> - Audit report on distribution and trends in provision of artificial water supplies for wildlife completed by June 2021 - Annual report on distribution and trends in provision of artificial water supplied. 	<ul style="list-style-type: none"> Database and copy of audit report and Annual reports on water provision 	<ul style="list-style-type: none"> Audit completed in 2020 and annual monitoring 2021 to 2025 	<ul style="list-style-type: none"> Staff salaries and T&S 	<ul style="list-style-type: none"> ZPWMA CM, AMs, Ecologists FC CSOs

9.4.2. Biological Monitoring and Management (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.4 Upper and lower thresholds of potential concern (TPCs) related to spatial and temporal impacts (ecological, social, economic) of elephants established	<ul style="list-style-type: none"> - Compile and analyse historical trends in habitats, selected species, economics of consumptive and non-consumptive use, and HEC trends in the region - Consultations with experts and the public on acceptable limits to change - Propose TPCs for elephant impacts and densities 	<ul style="list-style-type: none"> - Research reports completed by Dec 2021 - PCP consultation results analysed and reported - TPC recommendations submitted - Results of timely analyses and expert and public opinion being used in determining adaptive management measures 	<ul style="list-style-type: none"> - Copies of reports, papers and recommendations - 	Provisional TPCs provided by Dec 2022.	<ul style="list-style-type: none"> Staff salaries and T&S Aerial photos Satellite imagery Stakeholder meetings 	ZPWMA, CM & Ecologists FC Research partners
2.5 Appropriate adaptive management actions undertaken when TPCs approached or exceeded	<ul style="list-style-type: none"> - Regularly monitor levels and trends in TPC indicators that have been developed - Alert management when and if trends indicate that TPCs are likely to be exceeded - Decide on and implement appropriate management action that may include cropping elephants to mitigate HEC and provide protein to local communities 	<ul style="list-style-type: none"> - Adaptive management actions taken in response to elephant impacts 	<ul style="list-style-type: none"> - Monitoring records and reports - Use of monitoring and research results in determining management actions - Management action taken in respect of TPCs being approached or exceeded 	2021-2025	<ul style="list-style-type: none"> Monitoring and implementation of management actions 	ZPWMA, FC RDCs SOAZ ZPGHA ZHA Traditional Leaders
2.6 Age and quality of all elephant killed (trophies, PAC, rations, culls, poached) monitored and quotas to meet desired trophy quality adjusted	<ul style="list-style-type: none"> - Record age, sex and tusk size (length and weights) of all elephants killed each year - Set up and maintain database - Analyse trends and adjust quotas as necessary to meet desired trophy size - Introduce flexible and adaptable quota system (review fixed quota system) - Produce annual report 	<ul style="list-style-type: none"> Age, sex and tusk sizes for all elephant killed recorded Elephant trophy quality is maintained or improved in relation to the stipulated desired age and trophy size. 	<ul style="list-style-type: none"> Record of trophy quality of elephants obtained in each year 	Immediate and ongoing	<ul style="list-style-type: none"> Staff training and time, Safari operators training and time 	ZPWMA, CM & AMs , FC SOAZ ZPGHA ZHA RDCs

9.4.2. Biological Monitoring and Management (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.7 Elephant range defined and management to maintain (and/or recover) habitats and elephant populations, and connectivity with KAZA dispersal zones (in Botswana, Namibia, Zambia) and the Sebungwe, initiated and maintained.	<ul style="list-style-type: none"> - Define elephant range use and existing buffer zones and potential connectivity - Identify priority corridors and land use barriers - Conduct spatial analyses to inform land use planning to facilitate connectivity within the KAZA landscape - Mitigate and reduce human-elephant conflict 	<ul style="list-style-type: none"> - Elephant range maintained and lost habitats recovered - Corridors and dispersal areas between fragmented elephant populations established/maintained 	Maps and reports of elephant range use and movements	2021 – 2025	Staff time, T&S, Satellite collars imagery and mapping, GIS and tracking software	ZPWMA, FC RDCs Traditional Leaders Neighbouring countries KAZA Secretariat
2.8 Reports to international monitoring systems prepared and submitted (e.g. AED, ETIS, MIKE, MIKES, KAZA)	- Timely reports prepared and submitted as required to regional and national levels for transmission to international agencies	- Required reports submitted on time	Record of reports submitted	Ongoing	Staff time	ZPWMA RM, AM

9.4.3. Social, Economic and Cultural Framework (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
3.1 Joint venture and sustainable use opportunities to strengthen elephant conservation and management explored and diversified	<ul style="list-style-type: none"> - Initiate policy formulation and /or protocols for the development of joint ventures involving public, private, community partnerships (PPCPs) that diversify resource management and improve resilience in communal areas - Involve all relevant stakeholders in identifying potential areas and in the planning / selection process for potential joint ventures / PPCPs - Implement identified and feasible joint ventures / PPCPs - Explore and implement sustainable use options (e.g. cropping in Community conservancies) 	<ul style="list-style-type: none"> - Policy framework and protocols for establishing Joint Ventures /PPCPs in NWM adopted by August 2021 - At least three additional Joint Ventures / PPCPs initiated and operating by Dec 2021 - At least two additional community linked sustainable use projects operating by Dec 2021 	<ul style="list-style-type: none"> Policy framework document Record of operational Joint ventures / PPCPs Record/reports on sustainable use and benefits realised 	Project and programs initiated during 2021 and continue to operate through to 2025	Workshops, facilitating PPCPs, drafting policy	ZPWMA, FC RDCs Traditional Leaders CAMPFIRE Association CSOs Pvt Sector Partners
3.2 Transparent distribution of the benefits and costs of elephant management and conservation facilitated <i>Note: The details relating to this Output may need to be updated if the Draft CBNRM Policy resulting from the review of CAMPFIRE is adopted</i>	<ul style="list-style-type: none"> - Develop instruments / protocols to: <ul style="list-style-type: none"> o Increase elephant revenues at the ward level. o Provide for traditional leaders to be involved in the management and distribution of elephant related benefits. - Revise CAMPFIRE guidelines to increase the share of revenues at the ward level beyond 55%. - Develop a system to ensure accountability of the revenue sharing mechanism from District to ward level. - Periodically audit the revenue sharing system 	<ul style="list-style-type: none"> - A greater proportion of revenues from wildlife utilisation accrue to communities - Traditional leaders involved in elephant management and revenue sharing - Revenues from wildlife accounted for and audited 	<ul style="list-style-type: none"> Records of revenue earned by and disbursed to communities Report on annual consultation with Traditional Leaders Audit reports 	By June 2021	Meetings, Drafting Legal review	ZPWMA, CM & AMs FC RDCs CAMPFIRE Association Traditional Leaders CSOs

9.4.3. Social, Economic and Cultural Framework (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
3.3 Effective techniques and land use strategies, protocols, and diversification of land use to mitigate human-elephant conflict (HEC) facilitated and implemented.	<ul style="list-style-type: none"> - Review current human-elephant conflict mitigation measures and potential incentives / policies to reduce conflict - Implement proposals / options / SOPs for mitigating HWC emerging from review - Facilitate the adoption of diverse land use options and strategies that contribute to resilience and sustainability in buffer zones - Monitor levels of HWC, enter data in database, analyse trends 	<ul style="list-style-type: none"> - Land use strategies and protocols and SOPs for mitigating HWC adopted and implemented (e.g. SOPs developed and used by Vic Falls Wildlife Trust) - Trends in HWC incidents show reduced levels of conflict 	<p>Reports and records of implementation</p> <p>Database records and trend analysis reports</p>	Immediate and ongoing	<p>Equipment</p> <p>Review costs</p> <p>Monitoring costs</p>	<p>ZPWMA</p> <p>RDCs</p> <p>Traditional Leaders</p>
3.4 Recovery and use of all products from legally killed elephants improved	<ul style="list-style-type: none"> - Provide guidelines for the effective recovery, treatment, storage, and sale of elephant products - 	<p>Proportion of legally killed elephants from which products were effectively recovered</p> <p>Revenue earned</p>	<p>Database records and reports</p>	Immediate and ongoing		<p>ZPWMA, FC</p> <p>RDCs,</p> <p>Community leaders</p>
3.5 KAZA guidelines on the management of elephant in non-protected areas applied	<ul style="list-style-type: none"> - KAZA guidelines made available to all stakeholders - Assess applicability of the guidelines in components of the NWM landscape and apply accordingly 	<p>KAZA guidelines being applied</p>	<p>Annual reports</p>	Immediate and ongoing		<p>ZPWMA, CM & AMs</p>
3.6 Information on elephant conservation, management and benefits in communal areas neighbouring key elephant populations included in school curricula	<ul style="list-style-type: none"> - Liaise with Ministry of Primary and Secondary Education on the development, production, and inclusion of elephant conservation material in school curricula - Engage with specialists and communities to develop suitable educational material on elephant conservation and management for NWM - Distribute material developed and undertake awareness campaigns on elephant conservation in selected areas 	<ul style="list-style-type: none"> - Number and quality of elephant information items developed and delivered to schools in NWM - Proportion of schools within or neighbouring elephant areas receiving and using information provided 	<p>Elephant information items produced and distributed</p> <p>Reports/ records of delivery and use of elephant conservation information packages</p>	By June 2021 and ongoing	<p>Design and production of educational material</p> <p>Printing and distribution costs</p>	<p>ZPWMA, CM & AMs, FC</p> <p>NGOs</p> <p>Min Education</p> <p>RDCs</p> <p>Traditional Leaders</p>

9.4.4. Building Conservation Capacity (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means Of Verification	Time Frame	Indicative inputs/Costs	Lead Agencies
4.1 Funding to initiate and sustain the implementation of this plan secured	<ul style="list-style-type: none"> - Develop and submit bankable project proposals to identified potential funders - Explore potential partnerships (NGOs, Private Sector) - Review fee structure for elephant hunting and the potential to improve revenues for conservation and communities from alternative hunting models 	<ul style="list-style-type: none"> - Value of funding and support in kind for conservation of elephants in NWM realised each year 	Records maintained by ZPWMA, NGOS, RDCs, Tour and Safari Operators	Annual assessment		ZPWMA, FC, NGOs, RDCs Tour and Safari Operators
4.2 Current capacity and staff, training, and infrastructure and equipment needs identified and updated	<ul style="list-style-type: none"> - Carry out full audit of current human, infrastructure, equipment, and financial resources required to implement this plan and identify needs 	Capacity needs assessment (audit) completed by Sept 2020	Capacity needs assessment report	By Sept 2021	Time and travel costs of lead agencies and travel costs	ZPWMA, FC
4.3 Capacity for sustained research and monitoring strengthened and collaboration with research institutions enhanced [Linked to and informed by Components 2 and 3]	<ul style="list-style-type: none"> - Develop and implement a multi-disciplinary research and monitoring strategy for the NWM - Develop and implement a research programme based on that strategy - Provide appropriate tertiary level training (MSc / PhD) for ZPWMA ecologists - Engage universities to establish in-service mentoring system - Identify and provide needed equipment - Identify and recruit community research / monitoring personnel - Identify and train community monitors in the use and application of the Event Book or related systems (Cyber tracker, SMART) 	<ul style="list-style-type: none"> - Explicit research strategy / programme for the NWM elephants developed Dec 2020 - Functional research programme operating by June 2021 - No of research proposals developed, submitted, funded, and equipped - 2 persons trained per annum - No of research personnel on the ground - Research publications dealing with elephants - No of active community monitors using the Event Book system 	<ul style="list-style-type: none"> - Copy of research Strategy - Trained personnel in place for stipulated minimum period of time - Project proposals - Technical reports and research papers - Annual State of the LZV Report - Event Book records / reports 	Immediate and ongoing Annual NWM report commencing with baseline report for 2021	<ul style="list-style-type: none"> A range of training and equipment costs Staff costs and S&T 	ZPWMA, FC, Universities, NWM Working Group, CSOs

9.4.4. Building Conservation Capacity (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means Of Verification	Time Frame	Indicative inputs/Costs	Lead Agencies
4.4 Training and in-service retraining of personnel in law enforcement, research and monitoring, education awareness community elephant management, etc., established & operating	<ul style="list-style-type: none"> - Use capacity training needs assessment (4.2) to develop training modules / curricula - Draw up training/retraining programme 	<ul style="list-style-type: none"> - Training modules and curricula developed and being used - 50 to 100% increase in: <ol style="list-style-type: none"> a) No. of training days and programmes initiated b) No. of staff trained c) No. of communities trained and implementing elephant management programmes d) No. of elephant management campaigns conducted 	<ul style="list-style-type: none"> Record of training modules Record of training courses completed Records of personnel / communities trained Individual staff files 	Ongoing training and development of curricula by Training Unit	Cost of training staff and re-training	ZPWMA - Training Unit, FC CSOs Universities
4.5 Infrastructure and housing to facilitate effective protection, conservation and management of elephant in the NWM developed	<ul style="list-style-type: none"> - Rebuild / refurbish all main access and internal roads within NWM wildlife areas - Maintain / establish necessary airstrips - Undertake a feasibility study for the strategic development of new bases and pickets to support effective law enforcement, research and monitoring - Review staff accommodation requirements for the NWM - Renovate existing buildings - As needed develop staff accommodation and associated infrastructure 	<ul style="list-style-type: none"> - Roads, bridges, airstrips refurbished and maintained as planned - Feasibility study of required field stations (Pickets) completed by June 2021 - Identified infrastructure requirements prioritised and required developments undertaken and completed by Dec 2021 	<ul style="list-style-type: none"> Housing, field units, feasibility study review report On site inspection of roads, airstrips and constructed housing units 	Immediate and ongoing through 5-year period	USD 3 million+	ZPWMA FC RDCs Donor support
4.6 Effective, secure communications network across the region established	<ul style="list-style-type: none"> - Establish digital VHF and GPS communication and tracking systems across the NWM (repeater links, base sets, handhelds, mobile radio sets, computers for monitoring purposes 	Fully operational secure communications system in place and being maintained by Jul 2021	Reports and tests of system	Upgrading current system during 2021 and complete by June 2022	USD 310,000	ZPWMA, FC CSOs / Donors

9.4.5. Coordination, Collaboration and Programme Management (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
5.1 Regional elephant management committee with membership from key stakeholders established and operating	<ul style="list-style-type: none"> - Appoint committee members - Hold Zoom meetings quarterly - Circulate minutes and actionable points within one month of each meeting -Link with equivalent committees for carnivores and key species 	<ul style="list-style-type: none"> - Timely minutes of each quarterly virtual meeting produced and circulated - Number of committee resolutions and actionable points initiated and acted upon 	Meeting minutes Actions and recommendations approved and implemented	Immediate and ongoing	Time and internet connection costs of virtual meetings	ZPWMA, Elephant Coordinator, FC, Private sector agencies, RDCs Traditional Leaders, CSOs
5.2 Technical support team to assist in implementation of the plan established and operational	<ul style="list-style-type: none"> - Convene technical support team of volunteers - Establish Terms of Reference for the team with ZPWMA & FC 	<ul style="list-style-type: none"> - Functional team established - Technical support provided in keeping with TORs and planned activities implemented 	Meeting minutes Technical activities implemented	Immediate and ongoing	Costs of meetings (venue and travel) Equipment	ZPWMA, FC CSOs
5.3 Effective communication and collaboration between Private sector, CSOs, State Agencies, and neighbouring communities (via a Forum) or existing platforms established	<ul style="list-style-type: none"> - Establish a formal forum for private sector agencies to interact with ZPWMA and FC - Establish terms of reference and recognition as a formal entity - Establish effective engagement with RDCs, and Traditional Leaders in NWM and neighbouring communities 	<ul style="list-style-type: none"> - Formal recognition by ZPWMA / FC achieved - Meetings held - Effective engagement with neighbours 	Minutes and action point of meetings SMART Reports	By June 2021	Costs of meetings (venue and travel)	NGOs, Private Sector ZPWMA, FC
5.4 Links with neighbouring Botswana, Namibia and Zambia to confer on the management of shared elephant populations established / strengthened	<ul style="list-style-type: none"> - Establish links with Botswana, Namibia and Zambia and KAZA Secretariat to confer on cross border and KAZA-wide elephant management issues - Collaborate with neighbouring country authorities to establish monitoring of shared elephant populations in the region 	<ul style="list-style-type: none"> - Links established and operating, in particular with KAZA Elephant Working Group 	Records of meetings and any joint elephant management initiatives	By June 2021 and ongoing through to 2025	Costs of meetings (venue and travel)	ZPWMA, FC RDCs CSOs Researchers

9.4.5. Coordination, Collaboration and Programme Management (North West Matabeleland)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
5.5 Information dissemination strategy developed and implemented	<ul style="list-style-type: none"> - Undertake an awareness campaign to promote and market the plan locally (e.g. Agricultural Shows) and internationally - Produce and disseminate regular progress reports on the implementation of the plan 	<ul style="list-style-type: none"> - At least one awareness campaign conducted each year - Exhibits at Agriculture Shows - Annual progress reports produced - Number of briefs / news releases on major developments or progress released - Funds raised to support elephant conservation 	<ul style="list-style-type: none"> Reports Campaign materials Press releases Funds raised 	Initial campaign by June 2021	Preparation of campaign material Staff time and T&S	ZPWMA CSOs Private sector

ANNEX 9.5 Sebungwe Action Plan

9.5.1 Protection and Law Enforcement (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs / Costs	Lead agencies
1.1 Highly trained rapid response anti-poaching units maintained / established and strengthened	<ul style="list-style-type: none"> - Assess / audit current law enforcement capacity, prioritise needs - Mobilise resources to meet shortfalls in personnel and equipment and new technology - Recruit rangers, train and retrain staff - Review / establish Standard Operating Procedures (SOPs) for all law enforcement operations 	<ul style="list-style-type: none"> - Assessment of enforcement capacity completed by Jun 2021 - Two fully staffed and trained anti-poaching units in place and operating by Dec 2021, if not before - SOPs established and being implemented by Dec 2021 - Trends in illegal killing of elephants documented 	<ul style="list-style-type: none"> - Assessment report - Staff recruitment and training records - Monthly and annual reports of law enforcement operations - Illegal activity reports and records 	Immediate and fully operational by Dec 2021	<ul style="list-style-type: none"> - Staff salaries - Vehicles and S&T - Equipment 	ZPWMA - Cluster Manager (CM) & Area Managers (AMs) Forestry Com (FC) ZRP CSOs
1.2 Informer network, investigation and intelligence system strengthened / established and operating	<ul style="list-style-type: none"> - Maintain / Recruit informers and contacts - Maintain hotline for whistle-blowers - Procure of vehicles and motorbikes as required - Recruit additional investigators if needed and deploy strategically - Train / retrain investigators - Maintain constant liaison with informers - Rewards to informers standardized 	<ul style="list-style-type: none"> - Number arrests and successful convictions based on information from intelligence system - Number of incursions reported on/reacted to by local communities - Number of informer reports per informer leading to arrests and convictions 	<ul style="list-style-type: none"> - Validation of informer record - Records and reports of training session - Whistle blower system reports 	1 year and then ongoing	<ul style="list-style-type: none"> - Transport Rewards and payments to informers - Telecommunications costs - Repair and Maintenance, fuel 	ZPWMA – CM and AMs ZRP, FC CSOs
1.3 Investigation and prosecution of wildlife crimes improved	<ul style="list-style-type: none"> - Establish Standard Operating Procedures (to include guidelines in collaboration with ZRP, Prosecutors, Magistrates, EMA, etc., and evidence gathering - Maintain and continue to build relationships with the above - Identify gaps (e.g. ballistics and forensics) and solicit external expertise - Establish regular training and retraining schedule - Procure / hire specialized equipment that may be required 	<ul style="list-style-type: none"> - Proportion of arrests leading to prosecution - Proportion of successful prosecutions - 	<ul style="list-style-type: none"> - Court records - Law enforcement database 	SOPs to be established within 3 months. On going	<ul style="list-style-type: none"> - Training costs - Expert costs - Specialized equipment 	ZPWMA - CM & AMs, Training Unit FC ZRP Judiciary Conservation Support Organisations (CSOs)

9.5.1 Protection and Law Enforcement (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs / Costs	Lead agencies
1.4 Database that is compliant with national database established	<ul style="list-style-type: none"> - Set up SMART databases at Cluster HQ and field stations that can feed compliant information through to regional and national databases - Train staff in appropriate data collection, data capture and analysis, and reporting using standardised recording forms and procedures (SOPs) - Include Forestry Commission and RDCs, MIKE 	<ul style="list-style-type: none"> - Databases bases established and operational - Recording protocols (SOPs) in place and being used - Distinction between illegal elephant related incidents and operations and those related to other species in place 	<ul style="list-style-type: none"> - SMART database system set up and operating - Reports from database being generated, are available and being used in decision making 	Immediate and operating throughout 5 year period of the plan	Computers and software Database design and roll out Training	ZPWMA, CM, AMs and Training unit FC RDCs CSOs
1.5 Sebungwe deployment tactics revisited and implemented	<ul style="list-style-type: none"> - Sebungwe deployment tactics reviewed - Identification of OP sites, crossing points, etc. - Identification and procurement of specialized equipment (e.g. night vision) - Provision of dry rations for operations - Introduction of aerial surveillance flights 	<ul style="list-style-type: none"> - Resource books - Number of successes on detections - Number of contacts - Number of recoveries - Patrol effort (surveillance) 	Exhibits register Crime register Reports Briefing and debriefing register	Immediate and ongoing	Field allowances – Specialised equipment costs Aircraft hire and maintenance Staff dry rations costs Camping equipment costs	ZPWMA – CM and AMs ZRP, FC CSOs
1.6 Joint law enforcement operations within the Sebungwe	<ul style="list-style-type: none"> - Conduct joint operations within country and transboundary operations - Convene joint meetings of law enforcement agencies - Conduct awareness campaigns for other law enforcement agencies Agree on operational order / SOPs (including information sharing) 	<ul style="list-style-type: none"> - Number of joint operations leading to arrests and successful prosecutions - Number of meetings held per year Number of successes from shared wildlife crime information 	<ul style="list-style-type: none"> - Minutes - Joint operation reports - Records Manpower involved (by agency) 	Immediate and ongoing Meetings: Quarterly and Monthly (cross-border)	Meeting costs (travel, etc.) Operational costs	ZPWMA – CM and AMs ZRP ZDF FC RDCs
1.7 Full compliance with hunting and guiding regulations enforced	<ul style="list-style-type: none"> - Ensure all operators within the region are fully aware of regulations Appropriate measures are taken to fine / apprehend / prosecute breaches of regulations 	Implementation of revised quota setting models in the NWM	Proceedings of hunting workshop and revised models Record of infringements and penalties and analysis of trends	Immediate and ongoing	Staff time and meeting costs	ZPWMA, CM & AMs FC SOAZ, ZPGHA ZHA

9.5.1 Protection and Law Enforcement (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs / Costs	Lead agencies
1.8 Illegal settlement / human encroachment in designated wildlife areas reduced / reversed	- Liaise with RDCs, Traditional Leaders, ZRP and DA's office, and Lands Office - Conduct awareness, education, extension programs in areas affected - Conduct regular satellite monitoring of areas likely to be affected	- Annual measures and reports of extent (ha) of designated wildlife areas in NWM that are settled in relation to baseline boundaries established in the 1975 P&W Act	Satellite / Google Earth monitoring records and reports of changes	Immediate and checked annually	Satellite imagery Costs of Meetings Awareness and educational materials for neighbours	ZPWMA – CM, AMs, Ecologists FC, RDCs Traditional Leaders

9.5.2 Biological Monitoring and Management (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative inputs/Costs	Lead agencies
2.1 Viable population, geographical distribution, and habitat connectivity targets established.	<ul style="list-style-type: none"> - Establish TPCs for all areas to set viable population targets for each protected area and conservancy - Collect spatial data (livestock densities, human population densities, forest cover, and agricultural cover) to map potential geographic distribution of elephants - Identify potential connectivity areas and promote wildlife-based land uses in those areas. 	<ul style="list-style-type: none"> - Viable population target of minimum 5,000 for the region with minimum and maximum thresholds in different land use categories - Updated geographical distribution map and spatial datasets - Number of conservancies approved and supported by communities 	<ul style="list-style-type: none"> Censuses of elephants Distribution and records of elephant movement Records of meetings and agreements to establish conservancies 	One year, then ongoing	<ul style="list-style-type: none"> Computers and software, transport for ground surveys and truthing \$50,000 Meeting logistics, and transport, 	ZPWMA CM, AMs Ecologists with participation from CSOs
2.2 Monitoring system for population trends, habitat, and impacts designed and implemented.	<ul style="list-style-type: none"> - Establish regional database for data on population, habitat, HEC, patrolling, poaching, and trophies (for trophies, see also Output 5). - Design and adopt standardized reporting formats. (i.e. MOMS) - Report to the regional management committee to review data and decide on management actions. - Conduct annual aerial surveys for the “core areas” of the Sebungwe (to be defined). 	<ul style="list-style-type: none"> - Regional database operational - Number of reporting formats designed and distributed - Number of persons, patrols, and sectors submitting data - Quarterly reports - Quarterly reviews 	<ul style="list-style-type: none"> Database Reporting formats Records of data submitted Reports and reviews 	One year for having the database established and the first committee meeting, then ongoing Immediate, quarterly and ongoing	For the first year, \$300,000, with \$150,000 for subsequent years	ZPWMA, with participation by RDCs, CSOs, and safari/tour operators
2.3 Viable population, geographical distribution, and habitat connectivity achieved and maintained.	<ul style="list-style-type: none"> - Establish wildlife-based land-use system (not a land use plan) with community conservancies acting as corridors between protected areas - Reduce human-elephant conflict to acceptable levels. - Implement responsible habitat management (with regard to fires, REDD+, mining, illegal and legal settlement) - Conduct integrated land-use planning. - Support extension of REDD+ initiative 	<ul style="list-style-type: none"> - Number of operational conservancies/ corridors - Elephant Population data - Number of elephants and people involved in “serious HEC incidents” - Effective, non-lethal elephant deterrents in place - Regional land-use plan - Number of stakeholders, meetings in planning process - Utilization of corridors by elephants 	<ul style="list-style-type: none"> Censuses of elephants Distribution and records of elephant movement Records of meetings to establish conservancies Legal instruments for conservancy establishment (e.g. via Town & Country Planning Act, Communal Land Act, EMA) 	Starting in 2021 and ongoing	Unknown, but large expenditure	ZPWMA – CM, AMs, Ecologists FC CSOs

9.5.2 Biological Monitoring and Management (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative inputs/Costs	Lead agencies
2.4 Sustainable offtakes established through participatory quota setting and monitored through adaptive management.	<ul style="list-style-type: none"> - Establish a database of offtakes, trophy qualities, and age classes (See Output 2, Activity 1). - Using participatory quota setting following best practices, set optional quotas based on scientific survey data, with no more than 0.5% of the estimate as the elephant quota for the region. - Revisit quota system and establish optional quotas as opposed to fixed quotas - Set minimum trophy size and a variable trophy fee with large increments based on size - Identify and enforce best hunting practices through a code of conduct incorporated in lease agreements and hunting permits. 	<ul style="list-style-type: none"> - Trophy quality improving - Record of hunting practice transgressions 	Trophy database	Database and code of conduct review within 6 months Revised quotas set annually Minimum trophy size defined before first revised quota	\$20,000	ZPWMA – CM & AMs Ecologists RDCs
2.5 Robust and comprehensive research program enhanced and maintained.	<ul style="list-style-type: none"> - Research the impact of decline on population dynamics. - Develop applied research projects, especially interdisciplinary and multidisciplinary research. - Establish research oversight body, building on existing approval processes. 	Publications, particularly with management guidance	Publications and raw data	Ongoing and long-term	Annual budget: \$200,000	ZPWMA Terrestrial Research Unit. Local government, Universities CSOs
2.6 Age and quality of all elephant killed (trophies, PAC, rations, culls, poached) monitored and quotas to meet desired trophy quality adjusted	<ul style="list-style-type: none"> - Record age, sex and tusk size (length and weights) of all elephants killed each year - Set up and maintain database - Analyse trends and adjust quotas as necessary to meet desired trophy size - Introduce flexible and adaptable quota system (review fixed quota system) - Produce annual report 	Age, sex and tusk sizes for all elephant killed recorded Elephant trophy quality is maintained or improved in relation to the stipulated desired age and trophy size.	Record of trophy quality of elephants obtained in each year	Immediate and ongoing	Staff training and time, Safari operators training and time	ZPWMA, CM & AMs , FC SOAZ ZPGHA ZHA RDCs

9.5.2 Biological Monitoring and Management (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative inputs/Costs	Lead agencies
2.7 Reports to international monitoring systems prepared and submitted (e.g. AED, ETIS, MIKE, MIKES, KAZA)	- Timely reports prepared and submitted as required to regional and national levels for transmission to international agencies	Required reports submitted on time	Record of reports submitted	Ongoing	Staff time	ZPWMA RM, AM

9.5.3 Social, Economic and Cultural Framework (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs / Costs	Lead agencies
3.1 Transparent and equitable distribution of benefits established	<ul style="list-style-type: none"> -Develop an instrument to increase elephant revenues at the ward level. -Instrument to provide for traditional leaders to be involved in management and distribution of elephant related benefits. -Revise CAMPFIRE guidelines to increase the share of revenues at the ward level beyond 55%. -Develop a system to ensure accountability of the revenue sharing mechanism from District to ward level. -Periodic auditing of the revenue sharing system. 	<ul style="list-style-type: none"> - Instrument approved. -CAMPFIRE guidelines revised and approved -Revenue accountability system established -Number of audits 	Publication of instruments and guidelines. Audit documents	One year		ZPWMA/ CM & AMs CAMPFIRE CSOs
3.2 Economic management of consumptive and non-consumptive tourism of elephants in Sebungwe improved.	<ul style="list-style-type: none"> -Preventing human settlement in protected areas -Review length of concession leases to encourage greater investment. -Rehabilitate the depleted Safari areas -Promote PPCPs 	<ul style="list-style-type: none"> - Number of eviction notices issued. - Number of reviewed leases - Number of safari areas under proper management/concessions -Record of PPCPs established. 	Records and reports of the points (6)KPI	Over a year		ZPWMA/ CAMPFIRE, RDCs Safari/ tour operators CSOs
3.3 Land use strategies to mitigate human elephant conflicts (HEC) established	<ul style="list-style-type: none"> - Review of human elephant conflict measures (consultancy) -Increase sense of ownership of wildlife as a mitigation measure to HEC (review) -Traditional leaders to set up compensation scheme for land holders directly affected by HEC. -Support review and development of land –use plans to optimize agricultural livestock and farming activities 	<ul style="list-style-type: none"> -Reports -Link with activity 1 and 2 output1 (benefits) -Compensation scheme functioning and record of HEC in place. -Land use plans supported 	Reports endorsed at local level Revenues increased. Records of HEC available Plans approved and published.	1 to 3 years		ZPWMA/ CAMPFIRE RDCs

9.5.3 Social, Economic and Cultural Framework (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs / Costs	Lead agencies
3.4 Investment of wildlife revenue in income generating community products established	<ul style="list-style-type: none"> -Revitalize technical support services to communities/ community initiatives -Participatory business plan at community level. -Explore micro financing opportunities -Explore markets for community projects related to elephant conservation 	<ul style="list-style-type: none"> - Technical support services established through proper instrument. -Participatory business plan adopted. 	<ul style="list-style-type: none"> Micro finance projects Record of business plan Inventory of support services 	Ongoing		CAMPFIRE Private Sector CSOs
3.5 Relationship and communication mechanism established	<ul style="list-style-type: none"> -Sebungwe WG to include Traditional leaders and RDCs -Methodologies for regular communication with communities and their leaders established 	<ul style="list-style-type: none"> - Traditional leaders and RDC included in the WG -Communication strategy developed 	<ul style="list-style-type: none"> Reports of the WG, Communication strategy reports. 	Immediate and ongoing		CAMPFIRE ZPWM RDCs Traditional Leaders
3.6 Education on elephant conservation in the community increased	<ul style="list-style-type: none"> -Information campaign explaining reasons for quota decrease (see Biological Component for cross check) -Explain what safari hunting means and how it links to benefits -Share census results and explain implications -Extend conservation education to Sebungwe wards (NGOs?) 	<ul style="list-style-type: none"> -Number of Outreach meetings with Traditional leaders / Wards/ RDC including the 4 key activities 	<ul style="list-style-type: none"> Outreach meetings reports 	Immediate and ongoing		ZPWMA – CM & AMs CAMPFIRE RDCs Traditional Leaders

9.5.4 Building Conservation Capacity Component (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative inputs/Costs	Lead agencies
4.1 Capacity needs for elephant management in Parks and CAMPFIRE areas in the Sebungwe analysed and identified	- Draw up TOR - Appoint consultant	Report produced	Report	3 months	Consulting fees	Sebungwe WG
4.2 Training provided	- Analyse training needs - Prioritise and develop training curricula if not already available - Implement in-service training and re-training	Numbers of people trained and certified	Training reports	Ongoing over 5 years	Travel & Accommodation	Sebungwe WG
4.3 Best practice standards for elephant management in place	- Standards defined by and through National Elephant Policy and CAMPFIRE Principles and Guidelines - Define clear objectives for elephant management in the Sebungwe - Support CITES MIKES site(s) and application of SMART and RBM	- MIKES PIKE database - SMART database	CITES MIKE Reports SMART Reports	Minimum 5 years		Sebungwe WG
4.4 Research and monitoring capacity strengthened	- Provide appropriate tertiary level training for ZPWMA staff - Engage universities to establish in-service mentoring systems - Identify equipment needs, source and provide - Identify and recruit community research/ monitoring personnel - Identify and train community monitors in the use and application of the Event Book System	- 2 persons trained per annum - 5+ people in mentoring system each year - Equipment procured and in place - Active community research programme underway - Event Book System functional and operationalised	Trained personnel in place for stipulated minimum period of time Technical reports and research papers Annual State of the Sebungwe Report	Immediate and ongoing Sebungwe report annually commencing with baseline report		ZPWMA, Universities, Ecologists Sebungwe WG (Also in many places in plan SWG)

9.5.4 Building Conservation Capacity Component (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative inputs/Costs	Lead agencies
4.5 Funding secured	<ul style="list-style-type: none"> - Complete Sebungwe Elephant Management Plan and disseminate for funding purposes - Development of funding proposals for each of the components, if necessary - Identify donors (e.g. bilateral, WB, GEF, NGO, other) - Submit proposals - Develop Sebungwe branding and marketing campaign 	Number of successfully funded proposals	Record of funding proposals developed and funded	Immediate and ongoing		ZPWMA, Sebungwe WG NGOs Universities CSOs
4.6 Infrastructure housing, plant and equipment to facilitate effective protection, conservation and management of elephant in the Sebungwe developed	<ul style="list-style-type: none"> - Roads rehabilitation - Karoi-Binga road - Airstrips 	<ul style="list-style-type: none"> - 2,000 km repaired to standard - Airstrips registered and functioning 	Roads in regular use	5 years	10,000,000 7,500,000 1,200,000 ~20,000,000 <i>To be updated</i>	Min Transport, DDF, RDCs ZPWMA Private Sector Sebungwe WG
4.7 Communications network refurbished / established	<ul style="list-style-type: none"> - Procure and install radio communications systems 	System installed and operational	Effective repeater linked radio communication throughout Sebungwe	1 year	500,000	Sebungwe WG

9.5.5 Coordination and Programme Management (Sebungwe)						
Output	Activities	Key Performance Indicators	Means of Verification	Timeframe	Indicative Inputs/Costs	Lead agencies
5.1 Sebungwe Management Committee with an Elephant Working Task Force (WTF) and Project Coordinator established	-Identify committee members, select WTF and appoint Coordinator -ToR for each institution (from national plan)	Committee meeting twice yearly; WTF meets quarterly, identifies priority activities and oversees implementation by Coordinator	Meeting minutes Identified implementation activities completed as per milestones	Annual	Meetings and Travel / Accommodation	ZPWMA CM, & Elephant Coordinator & CAMPFIRE to establish structures
5.2 Coordination and communication between Traditional Authorities, their communities and the elephant management programme and plan strengthened	-Address the community through CAMPFIRE and traditional leadership -Introduce elephant management plan in easily understandable format – maps and graphs – and disseminate through all levels/actors in Sebungwe	<ul style="list-style-type: none"> Management plan documents for dissemination 	Record of meetings	On-going process	Meetings and Travel / Accommodation	SEWTF and RDC
5.3 Coordination between Sebungwe safari operators and implementation of the elephant management plan strengthened	-SOAZ, ZPHGA appoint liaison officer for Sebungwe elephant management plan -Encourage non-members of associations to participate in plan implementation	Liaison officer appointed and operating and non-members of associating participating in implementation of the action plan	Report by Liaison Officer	Immediate and ongoing		SOAZ, ZPHGA, ZPWMA
5.4 Links with neighbouring states established – shared elephant management	-Establish relationship with KAZA Secretariat -Establish links and synergies with transboundary natural resource mgmt. -Bilateral JOC to focus on illegal wildlife trade and trade routes -Establish links with TRAFFIC	<ul style="list-style-type: none"> KAZA Secretariat aware of Sebungwe elephant management plan TBNRM established and functional Reduced illegal trade 	<ul style="list-style-type: none"> Correspondence Records of minutes meetings held 	Immediate and ongoing	Nominal	SEMG JOC Permanent Commissions etc ZPWMA

Annex 9.6 Lower Zambezi Valley Action Plan

9.6.1. Protection and Law Enforcement (Lower Zambezi Valley)						
Output	Activities	KPIs	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
1.1 Highly trained rapid response anti-poaching units established/ strengthened	<ul style="list-style-type: none"> - Re-assess / audit current law enforcement capacity, prioritise needs - Mobilise resources to meet shortfalls in personnel, vehicle and boat fleet with maintenance packages, equipment and new technology - Recruit rangers, train and retrain staff with regular refresher courses - Review / establish Standard Operating Procedures (SOPs) for all law enforcement operations - Consolidate the LZV Anti-poaching unit (ZAVARU) + mobile trailer and trained specialist rangers - Equip, strengthen and maintain four more picket bases and marine bases (Southern boundaries of Mana and Chewore, Mana marine base, Red Cliffs marine base) - Maintain and resource Cluster level anti-poaching coordination structure 	<ul style="list-style-type: none"> - Re-assessment of enforcement capacity completed by Dec 2020 - Fully staffed and trained anti-poaching units in place and operating by Dec 2021 - SOPs updated, in place and being implemented - Trends in illegal killing of elephants recorded and updated monthly 	<ul style="list-style-type: none"> - Re-assessment report - Staff recruitment and training records - Monthly and annual reports of operations - Illegal activity reports and records - SMART reports and database 	Immediate and ongoing	<ul style="list-style-type: none"> - Staff salaries - Vehicles, boats and S&T - Equipment - Conservation Support Organisations (CSOs) 	ZPWMA, Cluster Manager, Area Managers ZRP ZDF CSOs
1.2 Informer network, investigation and intelligence systems maintained and improved	<ul style="list-style-type: none"> - Maintain and recruit informers / contacts, provide appropriate incentives to them and ensure network security - Recruit, equip and train Zimparks investigators and deploy them strategically - Set up anonymous whistle-blowing system (through hotline) - Carry out awareness campaign within communities on value of conservation and how to report illegal activity (to stimulate social involvement) 	<ul style="list-style-type: none"> - Number of arrests and prosecutions based on information from intelligence system - Number of investigators recruited and trained - Number of calls to whistle blowing system that result in effective follow up - Number of incursions reported on by local communities and reacted to by ZPWMA/ZRP 	<ul style="list-style-type: none"> - Inspection of informer reports / database - Records and reports of training session - Whistle-blower system reports - Records / reports - SMART reports and database 	Immediate and ongoing	<ul style="list-style-type: none"> - Staff salaries - Vehicles and S&T - Rewards and payments to informers - Telecommunications costs - 	ZPWMA, Cluster Manager, Area Managers, and support from CSOs ZRP

9.6.1. Protection and Law Enforcement (Lower Zambezi Valley)						
Output	Activities	KPIs	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
	- Upgrade and maintain intelligence database					
1.3 Investigation and prosecution of wildlife crimes improved	<ul style="list-style-type: none"> - Review and update Standard Operating Procedures (to include guidelines on collaboration with ZRP, Prosecutors, Judiciary, EMA, etc., and evidence gathering) - Dissemination of SOPs/literature to CSOs to enhance collaborative approach. - Identify gaps (e.g. ballistics and forensics) and engage external expertise where needed - Establish regular training and retraining schedule (scene of crime, ballistics, forensics, prosecuting) - Procure / hire specialized equipment that may be required - Advocate for Parks staff to be trained and stand as prosecutors in wildlife cases 	<ul style="list-style-type: none"> - Number of arrests and proportion of arrests leading to prosecution - Number and Proportion of successful prosecutions - Trends analysed monthly and annually - 	<ul style="list-style-type: none"> - Court records - Law enforcement data base - SMART reports and database 	<ul style="list-style-type: none"> SOPs to be reviewed within 3 months. Gap analysis by Nov 2020 Training schedule in place by June 2021 Parks staff engaged as prosecutors by July 2021 	<ul style="list-style-type: none"> Training costs Expert costs Specialized equipment 	<ul style="list-style-type: none"> ZPWMA (DD and Cluster Manager) Judiciary ZRP CSOs

9.6.1. Protection and Law Enforcement (Lower Zambezi Valley)						
Output	Activities	KPIs	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
1.4 Database that is effectively and appropriately equipped and compliant with national database is established	<ul style="list-style-type: none"> - Roll out SMART databases in all PAs, Cluster HQ, and field stations that can feed compliant information through to cluster and national databases - Regularly review databases and their effectiveness - Train all relevant staff in collecting appropriate data, data capture and reporting, using standardised recording forms and procedures and embracing new technologies and software (e.g. SMART). - Ensure Cluster HQ and all stations in LZV have the relevant equipment to implement, manage and maintain effective data collection, entry, storage, analysis and reporting. 	<ul style="list-style-type: none"> - Databases bases established/upgraded and fully equipped and operational by July 2021 - Recording, data entry, analysis, and reporting protocols in place and being fully used by Dec 2021 	<ul style="list-style-type: none"> - Database system being used and operational - Reports from database - SMART reports and associated database 	Immediate and fully operational by Dec 2021	<ul style="list-style-type: none"> Blackview devices, external charging devices, solar rollup pads for charging in the field, GPS where Blackviews are not yet available, batteries, Computers and uptodate software and all associated accessories Mounted TV screen in Ops Room Training support Database design and roll out 	Cluster Manager, AMs, Ecologists and CSOs
1.5 Joint law enforcement operations within the LZV	<ul style="list-style-type: none"> - Convene joint meetings of law enforcement agencies - Conduct awareness campaigns with other law enforcement agencies - Agree on operational order / SOPs (including information sharing and security of info) - Conduct joint law enforcement operations within LZV 	<ul style="list-style-type: none"> - Number of meetings held per year - Number of successes from shared wildlife crime information - Number of joint operations leading to arrests and successful prosecutions 	<ul style="list-style-type: none"> - Minutes - Joint operation reports - Records - Manpower involved (by agency) 	Meetings: Quarterly (national) and Monthly (cross-border)	<ul style="list-style-type: none"> Meeting costs (travel, etc.) Operational costs 	ZPWMA CM, AMs ZRP ZDF
1.6 Full compliance with hunting and guiding regulations enforced	<ul style="list-style-type: none"> - Ensure all operators within the region are fully aware of regulations - Appropriate measures are taken to fine / apprehend / prosecute breaches of regulations - Enforce regulations (e.g. in fire management and sustainable hunting practices) - Establish and enforce code of ethics for all wildlife utilisation and research 	Revised quota setting models in the LZV implemented and being observed Code of ethics in place and being observed	<ul style="list-style-type: none"> Revised quotas and revised models Catalogued evidence of compliance (hunting reports?) Record of infringements and penalties and analysis of trends 	Immediate and continuing implementation	Staff time in monitoring, investigating and reporting	ZPWMA CM, AMs SOAZ, ZPGHA ZDF

9.6.1. Protection and Law Enforcement (Lower Zambezi Valley)						
Output	Activities	KPIs	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
1.7 Illegal settlement / human encroachment in designated wildlife areas reduced / reversed	<ul style="list-style-type: none"> - Liaise with RDCs, Traditional Leaders, ZRP and DA's office, Lands Office, and Mines office - Conduct awareness, education, extension programmes in areas affected - Assess park boundaries and buffer zones and map illegal settlements and advocate for their removal (or define where informal/formal area excisions such as Chewore South have been allowed) - Engage communities in wildlife conservation and establishment and maintenance of buffer zones - Conduct regular satellite monitoring of areas likely to be affected 	Percentage of designated wildlife area in the LZV settled has not increased, or has declined, from the 2015 levels	Satellite monitoring records of areas settled Ranger reports	Annual checks using up to date satellite imagery and reports from ground patrols	Satellite imagery Patrol costs Meeting costs Awareness and educational materials	ZPWMA (Cluster Manager, Area Managers) RDCs Traditional Leaders
1.8 Collaboration in law enforcement with neighbouring countries established	<ul style="list-style-type: none"> - Convene joint meetings of law enforcement agencies - Agree on standard operational procedures - Conduct joint cross border operations - Expedite the conclusion of ZIMOZA TFCA (in liaison with CSO's e.g. PPF) - Expedite the conclusion of MPLZV TFCA (in liaison with CSO's e.g. PPF) 	<ul style="list-style-type: none"> - Agreed SOPs for cross border law enforcement operations - Number of joint operations leading to arrests and successful prosecutions 	Minutes of joint meetings Record of agreed SOPs Reports of cross border operations Record of arrests and prosecutions	Immediate and ongoing	Travel and meeting costs	ZPWMA DD, CM, AMs ZRP JOC CSOs

9.6.2. Biological Monitoring and Management (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.1 Elephant population dynamics – numbers, distribution, structure, mortality regularly monitored (using aerial, ground, and ranger- based methods)	<ul style="list-style-type: none"> - Regular aerial sample census (preferably every 3yrs but at least once in 5 years) - Carry out aerial monitoring of illegal activities using carcass ratios - Develop and adopt standardized databases for all stations and RDCs in LZV - After SMART-trained rangers' assessment enhance and train ranger-based monitoring teams (SMART, MIKE, ETIS, and their use of new methods and technologies) across all stations in LZV - Model population dynamics and distribution to assess likely future trends - Motivate and enhance the role of rangers in monitoring and data collection - Analyse the data and report on trends annually 	<ul style="list-style-type: none"> - Information on trends in elephant numbers, structure, distribution and mortality analysed and available annually 	<ul style="list-style-type: none"> - Databases and annual reports - SMART-trained Rangers assessment 	<ul style="list-style-type: none"> Aerial surveys done every 3 years if possible (LZV) Ground and waterhole counts annually Illegal activities and ranger patrol ground counts reported monthly Database and monitoring updated every month 	<ul style="list-style-type: none"> Aerial survey – USD 150,000 Computers and software Training in SMART, MIKE, etc. 	ZPWMA (Cluster Manager, Area Managers and Ecologists) Research Partners CSOs
2.2 Impacts of elephants on selected habitats and selected indicator plant and animal species monitored and assessed	<ul style="list-style-type: none"> - Measure and monitor vegetation indicators, e.g. woodland cover, <i>vegetation structure, condition</i>, and changes in specific indicator species e.g. Baobabs - Measure and monitor functional biodiversity indicators, e.g. bird species richness and responses to structural changes in woodlands 	<ul style="list-style-type: none"> Elephant impacts and trends on selected habitats and key indicator species monitored, analysed and reported annually 	<ul style="list-style-type: none"> Copies of research and monitoring annual reports Database records 	<ul style="list-style-type: none"> Conducted each year 2020-2025 	<ul style="list-style-type: none"> Staff salaries and S&T Field equipment Computers and software 	ZPWMA (Ecologists) Research partners CSOs
2.3 Upper and lower thresholds of potential concern (TPCs) related to spatial and temporal impacts (ecological, social, economic) of elephants established	<ul style="list-style-type: none"> - Compile and analyse historical trends in habitats, selected species, economic performance of consumptive and non-consumptive use, HWC, in the LZV - Consultations with experts and the public on acceptable limits to change - Develop explicit TPCs for elephant densities and impacts with indicators to be monitored 	<ul style="list-style-type: none"> - Report on long term trends completed by July 2021 - TCP consultations and recommendations completed and reported by Dec 2021 	<ul style="list-style-type: none"> - Copies of reports, papers and recommendations - SMART reports and database 	<ul style="list-style-type: none"> Research and consultations and reports completed by Dec 2021 	<ul style="list-style-type: none"> Staff salaries and S&T Aerial photos Satellite imagery Stakeholder meetings 	ZPWMA (Chief Ecologist and TEs based in LZV) Research partners and CSOs

9.6.2. Biological Monitoring and Management (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.4 Appropriate adaptive management actions undertaken when TPCs are approached or exceeded	<ul style="list-style-type: none"> - Regularly monitor levels and trends in TPC indicators that have been developed (Indicators should include canopy cover vegetation and species diversity, levels of HEC) - Alert management when and if trends indicate that TPCs are likely to be exceeded - Decide on and implement appropriate management action - Develop disaster response strategy (e.g. in case of droughts) 	<ul style="list-style-type: none"> - Reports, data, and recommendations in relation to TCPs submitted annually to Cluster Manager - Adaptive management actions taken/not taken in response to elephant impacts and population trends 	<ul style="list-style-type: none"> - Monitoring records and reports - Use of monitoring and research results in determining management actions - Management action taken in respect of TPCs being approached or exceeded 	Dec 2021 and annually through to 2025	Staff time, training and travel to sites being monitored Remote sensing imagery	ZPWMA (Cluster Manager, Area Managers and Ecologists) RDCs SOAZ/ZPGHA ZHA Traditional Leaders CSOs
2.5 Age and trophy quality of all elephant harvested (for trophies, PAC, rations, culls, poached) monitored and quotas to meet desired trophy quality adjusted	<ul style="list-style-type: none"> - Record age, sex and tusk size (length, basal circumference, weight) of all elephants killed each year - Set up and maintain database - Analyse trends and adjust quotas as necessary to meet desired trophy size - Introduce flexible and adaptable quota system (review fixed quota system) - Develop standardised template for producing reports at station level to feed to cluster and national level. - Produce annual report 	Elephant trophy quality is maintained or improved in relation to the stipulated desired trophy size.	<ul style="list-style-type: none"> - Record trophy quality of elephants obtained in each year - SMART reports and database - Annual reports 	Immediate and ongoing	Staff training and time, Safari operators training and time	ZPWMA (Cluster Manager, Ecologists, Area Managers) SOAZ ZPGHA ZHA
2.6 Current elephant range defined and updated, and management to recover / maintain habitats, elephant populations and connectivity between fragmented populations and buffer zone populations initiated	<ul style="list-style-type: none"> - Update elephant range use and existing buffer zones and potential connectivity - Identify and map priority corridors and land use barriers - Conduct spatial analyses to inform land use planning to facilitate connectivity and reduce human-wildlife conflict - Conduct habitat assessments for zoning hunting areas/concessions in Communal lands 	<ul style="list-style-type: none"> - Elephant range and maintained and lost habitats recovered - Corridors between fragmented elephant populations maintained/ established 	Elephant range use maps and reports	2020 and annually through to 2025	Staff time, S&T, satellite imagery and mapping, GIS software	ZPWMA RDCs Traditional Leaders Neighbouring countries

9.6.2. Biological Monitoring and Management (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
2.7 Biodiversity database for LZV established	<ul style="list-style-type: none"> - Identify critical species, habitats, and sites to be monitored in LZV and in line with Research Strategy - Create Biodiversity database narrative report to support/justify fundraising efforts. 	<ul style="list-style-type: none"> - Biodiversity is monitored with supporting evidence and data 	Data base and associated reports	Start in 2002 and through to 2025	Staff time and travel	ZPWMA (Ecologists)
2.8 Rangers, stakeholders, communities and citizens engaged in accurate and consistent monitoring, contributing to effective elephant and habitat conservation	<ul style="list-style-type: none"> - Motivate and develop a culture that will ensure that biodiversity monitoring is valued - Invest in capacity building for biodiversity monitoring, - Equip PAs with resources and technologies (cameras, camera traps, GPS, cyber trackers, acoustic recorders, internet, computers) needed for effective data collection, asset registers - Develop a cell phone application for elephant monitoring that can be used by a wide range of actors in the field to capture and share information 	<ul style="list-style-type: none"> - Effective monitoring with accurate data being collected by a wide range of stakeholders in the LZV - Required databases and software developed and deployed for use by stakeholders 	Contents and records in associated databases, analyses of data and annual and related reports Asset registers	To start in 2021	Solar power upgrades. Equipment, Software and database development	ZPWMA Ecologists and CSOs
2.9 Reports to cluster, national, and international monitoring systems prepared and submitted (e.g. AED, ETIS, MIKE, MIKES)	<ul style="list-style-type: none"> - Produce monthly, quarterly and annual reports - Timely reports prepared and submitted as required to cluster and national levels for transmission to international agencies 	<ul style="list-style-type: none"> - Required reports submitted on time 	<ul style="list-style-type: none"> - Record of reports submitted - SMART reports and database - 	Ongoing	Staff time	ZPWMA (Cluster Manager, Ecologist and Area Managers)

9.6.3 Social, Economic and Cultural Framework (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
3.1 Joint venture and sustainable wildlife use opportunities involving neighbouring communities to strengthen elephant protection, conservation and management explored	<ul style="list-style-type: none"> - Initiate policy formulation and /or protocols for the development of joint ventures involving public, private, community partnerships (PPCPs) - Involve all relevant stakeholders in identifying potential areas and in the planning / selection process for potential joint ventures / PPCPs - Implement identified and feasible joint ventures / PPCPs <p><i>(Note: This Output does not include partnerships relating to the management of the Parks estate)</i></p>	<ul style="list-style-type: none"> - Policy framework and protocols for establishing Joint Ventures /PPCPs in the LZV adopted - At least four Joint Ventures / PPCPs initiated / maintained and operating by 2022 	<ul style="list-style-type: none"> Policy framework document Record of operational Joint ventures / PPCPs 	Immediate and ongoing	Staff time and stakeholder meetings	<ul style="list-style-type: none"> ZPWMA RDCs Traditional Leaders CAMPFIRE Association CSOs and Pvt Sector
3.2 Transparent distribution of the benefits and costs of elephant management and conservation in Communal Land areas facilitated <i>Note: The details relating to this Output may need to be updated if the Draft CBNRM Policy resulting from the review of CAMPFIRE is adopted</i>	<ul style="list-style-type: none"> - Develop instruments / protocols to: <ul style="list-style-type: none"> o Increase elephant revenues at the ward level. o Provide for traditional leaders to be involved in the management and distribution of elephant related benefits. - Revise CAMPFIRE guidelines to increase the share of revenues at the ward level beyond 55%. - Develop a system to ensure accountability of the revenue sharing mechanism from District to ward level. - Periodically audit the revenue sharing system 	<ul style="list-style-type: none"> - A greater proportion of revenues from wildlife utilisation accrue to communities - Traditional leaders involved in elephant management and revenue sharing - Revenues from wildlife accounted for and audited 	<ul style="list-style-type: none"> Records of revenue earned by and disbursed to communities Report on annual consultation with Traditional Leaders Audit reports 	By Dec 2021	Meetings, Drafting Legal review	<ul style="list-style-type: none"> ZPWMA (Cluster Manager, Area Managers, Community Liaison and Extension Services Manager) RDCs CAMPFIRE Association Traditional Leaders
3.3 Effective techniques and land use strategies and protocols to mitigate human-wildlife conflict (HWC) implemented.	<ul style="list-style-type: none"> - Review / update current human-elephant conflict mitigation measures and potential incentives / policies to reduce conflict - Implement proposals / options emerging from review - Monitor levels of HWC, enter data in database, analyse trends 	<ul style="list-style-type: none"> Review report submitted by Dec 2021 Land use strategies and protocols for mitigating HWC adopted and implemented Trends in HWC incidents show reduced levels of conflict 	<ul style="list-style-type: none"> Reports and records of implementation Database records and trend analysis reports 	2021 Immediate and ongoing	Staff time, data analysis, stakeholder/focus group meetings	<ul style="list-style-type: none"> ZPWMA RDCs Traditional Leaders CSOs

9.6.3 Social, Economic and Cultural Framework (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
3.4 Recovery and use of all products from legally killed elephants improved	<ul style="list-style-type: none"> - Provide guidelines to all relevant agencies for the effective recovery, treatment, storage, and sale of elephant products 	<ul style="list-style-type: none"> Proportion of legally killed elephants from which products were effectively recovered Revenue earned 	Database records and reports	Immediate and ongoing	Staff time and travel, storage	ZPWMA (Cluster manager and Area Managers) RDCs, Community leaders
3.5 Information on elephant conservation, management and benefits in communal areas neighbouring key elephant populations included in school curricula	<ul style="list-style-type: none"> - Liaise with Ministry of Primary and Secondary Education on the development, production, and inclusion of elephant conservation material in school curricula - Engage with specialists and communities to develop suitable educational material on elephant conservation and management for the LZV - Distribute material developed and undertake awareness campaigns on elephant conservation in selected areas 	<ul style="list-style-type: none"> - Number and quality of elephant information items developed and delivered to schools in the LZV - Proportion of schools within or neighbouring elephant areas receiving and using information provided 	<ul style="list-style-type: none"> Elephant information items updated, produced and distributed Reports/ records of delivery and use of elephant conservation information packages 	By June 2021 and ongoing	Design and production of educational material Printing and distribution costs	ZPWMA CSOs Min Education RDCs Traditional Leaders

9.6.4 Building Conservation Capacity (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
4.1 Funding to initiate and sustain the implementation of this plan secured	<ul style="list-style-type: none"> - Develop and submit project proposals to identified potential funders - Explore potential partnerships (NGOs, Private Sector) - Review fee structure for elephant hunting and the potential generation and distribution of revenues for conservation and communities from alternative models 	<ul style="list-style-type: none"> - No of project proposals developed, submitted and funded - Value of funding and support in kind for conservation of elephants in LZV realised each year 	Records maintained by ZPWMA, NGOS, RDCs, Tour and Safari Operators	Annual assessment		ZPWMA, CSOs, RDCs Tour and Safari Operators
4.2 Current capacity and staff training, infrastructure and equipment needs identified	<ul style="list-style-type: none"> - Carry out a full audit of current human, infrastructure, plant and equipment, and financial resources, required to implement this plan and identify needs 	Capacity needs assessment (audit) completed by June 2021	Capacity needs assessment report	By June 2021	Time and travel costs of lead agencies and travel costs Consultant costs?	ZPWMA CM, AMs and CSOs
4.3 Effective conservation leaders trained and operating	<ul style="list-style-type: none"> - Develop a curriculum for conservation leadership (management, strategic planning, communication, etc.) - Exchange programmes at Regional / Cluster level 	<ul style="list-style-type: none"> - At least two Officers within LZV trained each year - Curriculum approved by the Ministry of Tertiary Education 	No of leadership officers stationed within LZV	Starting Jan 2021 and continued each year	Training costs	ZPWMA DG, CM and CSOs
4.3 Capacity for sustained research and monitoring strengthened and collaboration with research institutions enhanced [Linked to and informed by Components 2 and 3]	<ul style="list-style-type: none"> - Develop and implement a multi-disciplinary research and monitoring strategy for the LZV - Develop and implement a research programme based on that strategy - Provide appropriate tertiary level training for ZPWMA - Engage universities to establish in-service mentoring system - Identify equipment needs and provide - Identify and recruit community research/ monitoring personnel - Identify and train community monitors in the use and application of the Event Book System 	<ul style="list-style-type: none"> - Explicit research strategy for the LZV developed by June 2021 (in line with National Research Strategy) - Functional research programme in place by June 2021 - No of research proposals developed, submitted, funded, and equipped - 2 staff trained per annum - No of research personnel on the ground - Research publications - No of active community monitors using the Event Book system 	<ul style="list-style-type: none"> - Copy of research Strategy - Trained personnel in place for stipulated minimum period of time - Project proposals - Technical reports and research papers - Annual State of the LZV Report - Event Book records / reports 	Immediate and ongoing Annual LZV report commencing with baseline report for 2020	A range of training and travel costs	ZPWMA (Chief Ecologist, Cluster Manager) Universities, LZV Working Group CSOs

9.6.4 Building Conservation Capacity (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
4.4 Training and in-service retraining of personnel in law enforcement, research and monitoring, education awareness community elephant management, etc., established & operating	<ul style="list-style-type: none"> - Use capacity training needs assessment (4.2) to develop training modules / curricula - Draw up a programme for training/ retraining that uses and, if need be, builds on the training programmes that have already been developed and used. 	<ul style="list-style-type: none"> - Training modules and curricula developed and being used - 50 to 100% increase in: <ul style="list-style-type: none"> a) No. of training days and programmes initiated b) No. of staff trained c) No. communities trained and implementing elephant management programmes 	<ul style="list-style-type: none"> Record of training modules Record of training courses completed Records of personnel /c communities trained Individual staff files 	Initiated by June 2021	Cost of training staff and training	ZPWMA CM, AMs and CSOs Universities
4.5 Infrastructure and housing to facilitate effective protection, conservation and management of elephant in the LZV developed	<ul style="list-style-type: none"> - Rebuild / refurbish all main access roads to the LZV (c.150 km) - Repair, clear, grade where necessary some 600 km of internal roads and several bridges - Maintain / establish necessary airstrips - Undertake a feasibility study for the strategic development of new bases and pickets to support effective law enforcement, research and monitoring - Undertake an assessment of solar power for water & energy requirements, (all of which need, at minimum, an upgrade and definitely increased delivery levels) - Implement above based on findings using appropriate materials and technology. - Undertake an assessment of water reticulation and plumbing systems - Implement above based on findings ensuring new systems using appropriate materials and technology. - Review staff accommodation requirements for the LZV - Renovate existing buildings - As needed develop staff accommodation and associated infrastructure - Establish maintenance budget across spectrum of infrastructural inputs. 	<ul style="list-style-type: none"> Roads, bridges, airstrips refurbished and maintained as planned Feasibility study of required field stations completed by April 2021 Feasibility study of solar power installations for energy and water completed by June 2021 Feasibility study of water reticulation and plumbing systems completed by June 2021. Identified infrastructure requirements prioritised and required developments undertaken and completed 	<ul style="list-style-type: none"> Housing, field units, feasibility study review report On site inspection of roads, airstrips and constructed housing units 	Immediate and ongoing through 5-year period	USD 3 million+ ??	ZPWMA CM, AMs CSOs and Donor support

9.6.4 Building Conservation Capacity (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
4.6 Effective, secure communications network across the region established	<ul style="list-style-type: none"> - Establish / upgrade digital VHF and GPS communication and tracking systems across the LZV (repeater links, base sets, handhelds, mobile radio sets, computers for monitoring purposes - Establish maintenance and spares budget based on equipment implemented, draw up schedule of maintenance - Maintain and enhance digital VHF and GPS communications 	Fully operational communications system in place, operating and being maintained by July 2021	Reports and tests of system	Immediate ongoing	USD 500,000	ZPWMA CM, CSOs and Donor support

9.6.5 Coordination, Collaboration and Programme Management (Lower Zambezi Valley)						
Output	Activities	Key Performance Indicators	Means of Verification	Time Frame	Indicative inputs/costs	Lead Agencies
5.1 Regional elephant management committee with membership from key stakeholders established and operating	<ul style="list-style-type: none"> - Appoint committee members - Hold meetings twice each year - Circulate minutes and actionable points within one month of each meeting 	Timely minutes of each meeting produced and circulated Committee resolutions and actionable points initiated and acted upon	Meeting minutes Actions and recommendations approved and implemented	Immediate and ongoing	Costs of meetings (venue and travel)	ZPWMA (Elephant Coordinator) Private sector agencies, RDCs Traditional Leaders
5.2 Technical support team to assist in implementation of the plan established and operational	<ul style="list-style-type: none"> - Convene technical support team of volunteers - Establish Terms of Reference for the team with ZPWMA 	Functional team established Technical support provided in keeping with TORs and planned activities implemented	Meeting minutes Technical activities implemented	Immediate and ongoing	Costs of meetings (venue and travel)	ZPWMA CSOs
5.3 Effective communication and collaboration between Private sector, CSOs, State Agencies, and neighbouring communities (via a Forum) established / maintained	<ul style="list-style-type: none"> - Establish a formal forum for private sector agencies to interact with ZPWMA - Establish terms of reference and recognition as formal entity - Establish effective engagement with RDCs, and Traditional Leaders in the LZV and neighbouring communities - Establish a communication plan to give effect to the Forum 	Formal recognition by ZPWMA achieved Meetings held Effective engagement with neighbours TORs for Forum	Minutes of meetings held	Immediate	Costs of meetings (venue and travel)	ZPWMA Private Sector
5.4 Links with neighbouring Zambia and Mozambique to confer on the management of shared elephant populations established / strengthened	<ul style="list-style-type: none"> - Strengthen links with Zambia and Mozambique to confer on cross border elephant management issues - Build on experiences gained from CSOs - Collaborate with Zambian authorities to establish monitoring of shared elephant populations in the region 	Links established and operating	Records of meetings and any joint elephant management initiatives	By June 2021 and ongoing	Costs of meetings (venue and travel)	ZPWMA RDCs CSOs
5.5 Information dissemination strategy developed and implemented	<ul style="list-style-type: none"> - Maintain / extend awareness campaigns to promote and market the plan locally and internationally - Produce and disseminate regular progress reports on the implementation of the plan 	<ul style="list-style-type: none"> - At least one awareness campaign conducted each year - Annual progress reports produced - Briefs / news/social media releases on major developments or progress released - Funds raised to support elephant conservation 	Reports Campaign materials Press releases Funds raised	Ongoing and extend campaigns by June 2021	Preparation of campaign material	ZPWMA CSOs Private sector

ANNEX 9.7 South East Lowveld Action Plan

9.7.1 Protection and Law Enforcement (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
1.1 Highly trained rapid response anti-poaching units maintained and strengthened	<ul style="list-style-type: none"> – Maintain / Appoint anti-poaching coordinators (for region and/or separate areas) and, as required: <ul style="list-style-type: none"> – Recruit staff – Train staff – Procure vehicles and equipment – Deploy units – Support existing units – Identify and fill in any gaps in coverage 	Trained and fully equipped units established and operating with relevant security agencies continue throughout 2021-25	Daily and monthly reports, including details on patrols, incursions, arrests and prosecutions Training and re-training reports	Operating through to 2025		ZPWMA /GCT Cluster Manager ZRP BVC, SVC, MT CSOs
1.2 Informer and intelligence systems established and/or maintained and strengthened	<ul style="list-style-type: none"> – Continue to Identify and recruit informers – Establish and implement incentive protocols – Set up, implement hotline for anonymous reports and communicate it to the public – Fully analyse past monthly and annual records, current data, and use information – Ensure information is included in database outlined in Output 1.6 	<p>An active / updated informer system/network operating within the SEL throughout 2021-25</p> <p>Hotline widely advertised and operational by March 2021</p>	<p>Operational reports</p> <p>Recoveries</p> <p>Records of arrests and successful prosecutions</p> <p>Records of payments for information</p> <p>Records of hotline reports</p>	By Sep 2020 and operating throughout the 5 year period	<p>Informer incentives</p> <p>Airtime</p> <p>Cost of setting up hotline</p>	<p>ZPWMA/GCT</p> <p>Security agencies</p> <p>BVC, SVC, MT CSOs</p>
1.3 Investigation of wildlife crime improved	<ul style="list-style-type: none"> – Conduct training / re-training programmes for investigation personnel – Ensure collaboration between Parks, ZRP and intelligence officers – Recruit more investigators to fill in gaps – Establish investigator incentive system – Collaborate with forensic scientists and ballistic experts, as well as agencies such as EMA and approved universities – Establish a local laboratory to test samples (e.g. diseases, poisons, DNA finger printing) 	<p>At least two law enforcement staff trained in scene of crime collection and preservation of evidence (ballistics, tissue samples, etc.) in SEL.</p> <p>Percentage of investigations resulting in successful prosecutions in SEL greater than in 2015-20 period</p>	<p>Reports on intelligence-led operations (arrests, dockets, convictions, multi-agency involvement)</p> <p>Training reports, including an investigators wildlife crime manual</p>	<p>3 Months</p> <p>Ongoing</p> <p>3 Months</p> <p>Ongoing</p> <p>Ongoing</p>		<p>ZPWMA/GCT</p> <p>CM, AMs</p> <p>ZRP</p> <p>BVC, SVC, MT CSOs</p>

9.7.1 Protection and Law Enforcement (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
1.4 Prosecution of wildlife crimes improved	<ul style="list-style-type: none"> - Train prosecutors on legislation and processes available to deal with wildlife crimes - Conduct awareness / outreach programs with Prosecutors and Judiciary - Use ancillary laws, such as those dealing with economic crime, organized crime, money laundering, - Communicate status of prosecutions to the public via ZPWMA website - Clear backlog of wildlife cases - Continue to explore the possibility of appointing dedicated wildlife crime prosecutors at Cluster and National level 	<p>Monthly liaison sessions on wildlife crime and law enforcement held with members of the judiciary</p> <p>Relevant legislation available and being used</p> <p>Wildlife crime prosecutors available and being used in SEL</p>	<p>Reports on arrests, dockets, convictions, sentences</p> <p>Court records</p> <p>Monthly liaison meeting reports</p> <p>ZPWMA website</p>	Starting in March 2021 months, and fully operational by December 2021		<p>ZPWMA/CCT CMs and AMs Judiciary Prosecutor-General's Office District and Provincial Public Prosecutors</p>
1.5 Law enforcement in collaboration with communities enhanced [Links to Component 3]	<ul style="list-style-type: none"> - Engage with communities and collaborate on curbing wildlife crimes - Establish anti-poaching clubs / community natural resource monitors that collaborate with ZPWMA / GCT, Conservancies, ZRP and CSOs - Lobby support from Chiefs to deal with local poachers - Hold workshops with Chiefs and communities about wildlife and wildlife crimes - Establish incentives for communities to provide information (e.g. use of hotline and Ecocash) 	<p>Incentive schemes that encourage the public and members of rural communities to contribute to law enforcement (e.g. through informer hotline) established in SEL</p> <p>Trend in the number of incidents of community contribution to law enforcement (e.g. whistle blowers)</p>	<p>Reports received through informers or hotlines</p> <p>Trends in reporting from communities</p> <p>Intelligence reports and minutes of meetings</p> <p>Reports on poaching incidents dealt with through traditional leaders</p>	Throughout the period 2020-25		<p>ZPWMA/GCT, CMs, AMs</p> <p>CSOs</p> <p>RDCs</p> <p>Traditional Leaders</p> <p>ZRP</p>
1.6 Local and regional wildlife law enforcement database (SMART) established	<ul style="list-style-type: none"> - SMART Set up and being used in all protected areas - Ensure inclusion of prosecution status in database - Implement national data recording protocols - Train data entry staff and crime analysts 	<p>Local databases established and operating</p> <p>Illegal activities recorded and analysed</p>	<p>Inspection of database</p> <p>Operational SMART databases</p> <p>Monthly and annual analysis reports</p>	In use and operating throughout the period 202-25	-Computer -Software -Training	<p>ZPWMA Conservancies Security agencies Mushandike College of WLMW</p>
1.7 Illegal settlements / grazing in wildlife areas reduced	<ul style="list-style-type: none"> - Liaise with RDC, Traditional Leaders and ZRP, DA's Office - Conducted Education programmes - Regular updated satellite mapping - 	Illegal settlements reduced to less than 5% of wildlife areas by 2025 (i.e. state protected areas, conservancies and community wildlife areas)	Annual records and maps of illegal settlements and of wildlife land recovered	Ongoing to 2025		<p>ZPWMA CAMPFIRE RDCs Conservancies CSOs</p>

9.7.2 Biological Monitoring and Management (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Lead Agencies
2.1 Research programme to understand temporal and spatial drivers of elephant dynamics and impacts established [Links to Component 4]	<ul style="list-style-type: none"> – Create enabling opportunities and environment for research – Prioritise research needs on elephant management – Conduct localised case studies and research projects – Monitor and evaluate poaching and other drivers - hunting, water, food, human disturbance – Explore possibility of GLTFCA flagship research programme for elephants [linked to Component 5] – Carry out ground surveys to monitor distribution, density and population age and sex structure of elephants 	<p>Research programme that enables local and international researchers, and links with the GLTFCA research programme, in place and producing reports</p> <p>Report on research priorities available by Dec 2020</p>	<p>Annual summary research report</p> <p>Number of research projects</p> <p>Number of essential research projects</p> <p>Number of affiliations with national, regional and international institutions</p> <p>Reports and reviews</p> <p>Publications</p>	5 year plan and annual review	<p>Aerial surveys</p> <p>Ground counts</p> <p>Satellite collars</p> <p>Remote sensing data layers</p> <p>Research operations</p> <p>Research permit costs</p>	<p>ZPWMA /GCT</p> <p>Terrestrial Ecology Unit (TEU)</p> <p>Conservancies</p> <p>Universities</p> <p>GLTFCA Joint Management Board / Coordinator,</p> <p>Mushandike College of Wildlife Management</p>
2.2 Current elephant range defined and options for extending range and maintaining connectivity between fragmented populations explored	<ul style="list-style-type: none"> – Define elephant range use, and existing and potential connectivity – Identify priority corridors and human land use barriers – Conduct spatial analyses to inform land use planning – Advocate land use planning to facilitate connectivity and reduce human wildlife conflict – Explore options for translocating elephants to under-stocked areas 	<p>Report on identified priority corridors for elephant connectivity within SEL, between SEL and other areas in Zimbabwe, and SA / Mz completed by June 2021</p>	<p>Elephant and human range use reports and maps</p>	Completed by June 2021	<p>Aerial surveys</p> <p>Satellite collars</p> <p>Remote sensing data layers</p> <p>Research operations</p>	<p>ZPWMA /GCT / TEU</p> <p>Conservancies</p> <p>CSOs</p> <p>Universities</p> <p>DA's Office</p> <p>RDCs</p>
2.3 Elephant population numbers, age and sex structure, mortality and trends monitored, quotas adjusted, and desired levels of trophy quality maintained	<ul style="list-style-type: none"> – Undertake standardised, regular, aerial and ground surveys of the elephant range – Collaborate with Mozambique authorities to establish monitoring of shared elephant populations in the region – Undertake trend analysis – Define elephant age and sex structures and extract birth and death rates – Establish annual monitoring plans – Record and analyse elephant mortalities (all causes e.g. poaching, PAC, natural, hunting, etc.) – Monitor trophy quality and age – Develop and implement an age-based and size-based trophy quota 	<p>Elephant range surveyed at regular intervals</p> <p>Demographic data available and analysed</p> <p>Annual monitoring plans implemented</p> <p>Evidence-based and research-based information and recommendations (consumptive, non-consumptive) provided to</p>	<p>Aerial survey reports</p> <p>Minutes of the elephant management committee meeting</p> <p>Minutes of quota setting meetings</p> <p>Reports on mortality, population structure, and trophy quality and age</p>	<p>Aerial surveys - at least every three years</p> <p>Ongoing monitoring</p> <p>Annual reports</p>	<p>Aerial surveys</p> <p>Remote sensing data layers</p> <p>Monitoring operations</p> <p>Permit costs</p>	<p>ZPWMA / GCT / TEU</p> <p>Conservancies</p> <p>CSOs</p> <p>Universities</p> <p>International donors</p>

		managers and used in quota setting				
2.4 Elephant impacts on their habitats and selected indicator species of biodiversity monitored	<ul style="list-style-type: none"> – Establish annual monitoring plans – Measure vegetation indicators such as woodland cover and impacts on selected sensitive species – Measure other functional biodiversity indicators e.g. bird responses to structural changes to woodlands – Research other drivers of ecological impact (climate change, change in land use, water provision, and fencing, amongst others) – Use research findings, expert opinion and informed public opinion to establish thresholds of potential concern (TPC or limits to change) to initiate management action in respect of elephant impacts in protected areas and effects on HEC in neighbouring communal lands – Relate desired levels of impact to measures of elephant abundance and spatial use – Identify areas with key vegetation communities that are utilized by elephants 	<p>Annual monitoring plans defined and implemented for selected indicator species of biodiversity</p> <p>TPC's established by June 2022 and being used</p> <p>Evidence-based and research-based information and recommendations (consumptive, non-consumptive) provided to managers</p>	<p>Annual ecological impact monitoring reports</p> <p>Report on TPCs</p> <p>Published research papers and reports</p> <p>Minutes of the elephant management committee meetings</p>	<p>Annual</p>	<p>Ecological surveys</p> <p>Remote sensing data layers</p> <p>Monitoring operations</p> <p>Permit costs</p>	<p>ZPWMA /GCT Terrestrial Ecology Unit (TEU)</p> <p>Conservancies CSOs</p> <p>Universities</p> <p>GLTFCA Coordinator</p>
2.5 Costs and benefits of elephants to local and national economy monitored and costs of elephants to local communities reduced	<ul style="list-style-type: none"> – Monitor and evaluate extent and costs of human-wildlife conflict incidents – Relate human-wildlife conflict to elephant abundance and spatial use – Understand drivers and social and economic consequences of human-wildlife conflict – Evaluate the direct and indirect contribution (financial, economic and social) and the direct and indirect costs of elephants to the well-being of people and to conservation, through both consumptive and non-consumptive uses – Implement ongoing and new mitigation measures for human-wildlife conflict 	<p>Annual monitoring plans implemented, analysed and reported on by Dec each year</p> <p>Research report on HEC Cost / benefit research report on elephants completed by Dec 2023</p> <p>Decline in HEC in the SEL</p>	<p>Annual monitoring reports</p> <p>Human Wildlife Conflict Reports</p> <p>Research reports provided to managers</p> <p>Minutes of the elephant management committee meeting</p>	<p>Annual</p> <p>Monthly Reports</p> <p>Research 2020 – 23</p> <p>Quarterly</p>	<p>Questionnaire Surveys</p> <p>Centralized database setup and maintenance</p> <p>Monitoring operational costs</p>	<p>ZPWMA /GCT/ TEU</p> <p>Conservancies CSOs</p> <p>Universities</p> <p>CAMPFIRE</p>
2.6 Adaptive elephant management framework adopted and implemented [Links to Component 4]	<ul style="list-style-type: none"> – Ensure collaboration between Regional Elephant Management Committee and regional and local resource management committees (e.g. LOCAL Forum) – Implement annual process of adaptive planning, implementation and monitoring in line with elephant management objectives and TPCs within the SEL – Develop and implement localised management plans (e.g. SVC plan) – Ensure alignment and harmonisation with other Zimbabwean, regional and international plans 	<p>Annual elephant management plans developed, adopted by June 2021 and implemented thereafter</p>	<p>Adaptive Elephant Management Plans and Committee Minutes (Component 5)</p> <p>Annual Planning and monitoring reports</p>	<p>Annual</p>	<p>Meeting costs</p> <p>Monitoring and analysis costs</p>	<p>ZPWMA Regional Elephant Management Committee</p>

2.7 Alternative outcomes modelled	<ul style="list-style-type: none"> - Develop framework for examining and modelling potential linked impacts between biodiversity issues, elephant issues, and societal issues, including any 'surprises', such as disease or extreme weather events. - Implement the modelling framework to explore the outcomes of various potential management scenarios 	Established modelling framework being used to guide adaptive management Scenario outcome recommendations are being used to guide management	Elephant Management Committee Minutes Reports on models and scenarios Publications Recommendations	Begin immediately Ongoing annual reports through 2025	Meeting costs Staff and consultants costs Software costs	ZPWMA / GCT / TEU Elephant Mgmt. Committee Conservancies Research institutions CSOs
2.8 Research Advisory Group for Elephant (and other key species) in SEL established	<ul style="list-style-type: none"> - Convene Research Advisory Group (RAG) for SEL - Review and advise on research needs, proposals and progress - Annual Meeting of RAG 	RAG convened by Dec 2020 and meet at least annually	Meeting minutes	2020 to 2025	Meeting costs	ZPWMA /GCT / TEU and Conservancies
2.9 SEL reporting to meet national / international standards achieved	<ul style="list-style-type: none"> - Advocate key summary set of elephant KPIs/outcomes for national reporting (e.g. potential population sizes against actual population sizes) - Comply with national and international legal obligations - Explore the designation of GNP as a MIKE site 	CITES reporting requirements met National reporting compliance requirements	SEL regional Reports CITES Reports	Annual	Monitoring costs	ZPWMA Regional Elephant Management Committee

9.7.3 Social, Economic and Cultural Framework (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
<p>3.1 Community partnerships and joint venture opportunities are incentivised and facilitated</p> <p><i>(Review of CAMPFIRE and CBNRM Policy if adopted may facilitate this and related Outputs)</i></p>	<ul style="list-style-type: none"> – Establish protocols, policies and models for development of wildlife- and natural resource–based joint ventures (PPCPs) – Identify potential areas for such ventures – Facilitate development of new, and strengthen existing, institutional frameworks and legal entities for beneficiaries at sub-district level – Develop concepts, business plans and prospectuses for different areas through consultative processes with Communities – Develop a SEL Tourism plan and review potential concessions within the framework of this Plan – Develop mechanisms for inclusive and transparent engagement and selection of operators and JV partners. – Facilitate communication, endorsement and support of JVs – Explore potential incentives and avenues of material and technical support that can be provided by Local Government and Authorities to promote establishment and sustainability of Community JVs – Promote access to affordable capital funding – Enhance capacity of community members to engage in wildlife and tourism management through training and employment 	<p>Models and protocols for joint ventures established</p> <p>Community institutions to engage in joint ventures established</p> <p>Joint ventures established and operating, resulting in financial benefit to communities</p> <p>SEL tourism developed and potential concessions identified</p> <p>Mechanisms of support and incentivisation to JVs established</p>	<p>Community institution documents (e.g. Trust deeds)</p> <p>Concept notes, business plans and prospectuses for JVs</p> <p>JV agreements and leases</p> <p>Records of meetings, negotiations and consultations</p> <p>SEL Tourism Plan</p> <p>RDC resolutions</p> <p>Community resolutions</p> <p>Record of incentives</p> <p>Project reports & accounts</p> <p>Training reports</p>	<p>Within 12-24 months, and then ongoing</p>	<p>Travel</p> <p>Meetings</p> <p>Drafting</p> <p>Consultants</p> <p>NGO support</p>	<p>Consevanics</p> <p>RDCs</p> <p>Traditional Leaders and relevant community institutions</p> <p>CSOs</p> <p>Pvt Sector</p> <p>ZPWMA</p>
<p>3.2 Elephant management in community wildlife areas improved</p>	<ul style="list-style-type: none"> – Promote improved and professionalized elephant management and security in community wildlife areas through establishment and maintenance of improved capacity, infrastructure, security and management systems – Develop and implement a transparent Performance Based Quota system which incentivises improved management and security systems for elephant in community hunting areas and which promotes effective buffering of source populations – Update terms of lease agreements in community wildlife areas to confer a broader range of roles and responsibilities on operators including resource management and protection; re-investment and infrastructure development; employment targets; local sourcing; etc. – Review key cooperation opportunities across different land uses and countries within GLTFCA, e.g. Sengwe-Tshipise Wilderness Corridor 	<p>Infrastructure, equipment and systems for elephant management in community wildlife areas established and operational</p> <p>Reduced human-elephant conflict</p> <p>Community capacity for wildlife management improved on 2020 levels</p> <p>Opportunities for cooperation within GLTFCA identified and followed through</p>	<p>Project reports</p> <p>Asset / infrastructure register</p> <p>Number of rangers / employees</p> <p>Leases, Business Plans</p> <p>Resource monitoring data</p> <p>Trophy data</p> <p>Number of people / locals employed</p> <p>Invoices and receipts for local goods and services</p> <p>Meeting records</p> <p>Constitutions and agreements signed</p> <p>Workshop reports</p>	<p>Ongoing</p> <p>Within 12 months</p>	<p>Capital expenditure on infrastructure and equipment</p> <p>Maintenance</p> <p>Electricity</p> <p>Communications</p> <p>Operational costs: Staff and training, Travel, Research and Monitoring, Workshops</p>	<p>JV partners</p> <p>CSOs & donors</p> <p>Local authorities</p> <p>GLTFCA</p> <p>ZPWMA / GCT</p> <p>RDCs</p>

9.7.3 Social, Economic and Cultural Framework (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
3.3 Additional elephant-based tourism and sustainable utilisation opportunities explored	<ul style="list-style-type: none"> – Promote awareness and marketing of iconic tuskers – Explore opportunities for expansion of community wildlife areas in viable wildlife corridors to enable establishment of additional sustainable utilisation areas and enterprises. [Links to Output 2.2 – identification of corridors] 	<p>Corridors identified and Agreements concluded</p> <p>Tourism and awareness campaigns undertaken</p>	<p>Tourism records</p> <p>Marketing materials</p> <p>Business plans</p> <p>Meeting and workshop reports</p> <p>Agreements signed</p> <p>Reports and maps of corridors</p>	<p>As part of SEL Tourism Plan</p> <p>Within 12 mtmonths and ongoing</p>	<p>As part of SEL Tourism Plan, workshops and consultations</p>	<p>All stakeholders</p> <p>RDCs</p> <p>Communities</p>
<p>3.4 Transparent distribution of the benefits and costs of elephant management and conservation facilitated</p> <p>[Links to Output 2.5]</p> <p><i>(Review of CAMPFIRE and CBNRM Policy if adopted may facilitate this and related Outputs)</i></p>	<ul style="list-style-type: none"> – Conduct regular and comprehensive Community Awareness campaigns regarding quotas, revenues and distribution within Communities – Capacitate and incorporate direct community involvement in management of Community Wildlife Areas, enterprises and JVs. – Diversify downstream natural resources enterprises to multiply the revenues from CBNRM, e.g. NTFPs 	<p>Awareness campaigns conducted</p> <p>Community structures have improved capacity to manage NRs and wildlife areas</p> <p>CBNRM revenues are invested in establishment of natural-resource based enterprises</p> <p>Community realises greater employment and financial benefit from CBNRM revenues</p>	<p>Meeting records</p> <p>Training materials & records established</p> <p>Number of enterprises established</p> <p>Books of account</p> <p>Number of employees & beneficiaries</p>	<p>Within 12 months and ongoing</p>	<p>Consultations</p> <p>Scoping and feasibility studies</p> <p>Awareness campaigns</p> <p>Company set up and administration</p>	<p>ZPWMA</p> <p>Traditional leaders</p> <p>Communities</p> <p>RDCs. CA</p> <p>Pvt Sector</p> <p>CSOs</p>
3.5 Effective techniques and land use strategies to mitigate human-elephant conflict are implemented	<ul style="list-style-type: none"> – Review land use zonation through consultative processes [link to Output 2.2] – Promote awareness and adoption of effective HEC mitigation measures – Promote improved rangeland rehabilitation and grazing management to reduce competition between livestock and wildlife. – Promote improved and rationalised crop production and alternative mechanisms to promote food security to reduce habitat destruction for inefficient dry land cropping (e.g. irrigation development; carbon sequestration credits to generate income & purchase of staple grains). 	<p>HEC is effectively reduced</p> <p>Availability and application of HEC mitigation measures improved</p> <p>There is participation in effective grazing management schemes</p> <p>Grazing is better managed and rangeland health is improved</p> <p>There is increased uptake of improved cropping techniques</p> <p>Crop yields are improved</p>	<p>Land use plans</p> <p>Meeting records</p> <p>Land use plans & agreements concluded</p> <p>Training & awareness materials</p> <p>HEC data</p> <p>Pasture monitoring data</p> <p>Crop production data</p>	<p>Within 12 months and ongoing</p>	<p>Workshops and consultations</p> <p>Training materials</p> <p>Consultants</p> <p>Input costs</p> <p>Irrigation development</p>	<p>Communities</p> <p>RDC</p> <p>ZPWMA</p> <p>Pvt Sector</p> <p>CSOs (technical & financial support)</p> <p>AGRITEX ?</p>

9.7.3 Social, Economic and Cultural Framework (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
		Alternative land uses evaluated				
3.6 Information on elephants and their conservation is included in school curriculae and environmental education adjacent to key elephant populations in the SEL is promoted	<ul style="list-style-type: none"> – Review and establish baseline data for 2020 on interventions – Promote awareness of elephant conservation (and other issues) through cultural events, art, plays, sport, etc. – Participate in syllabus review of national environmental science curriculum approved by the Ministry of Education – Develop approved environmental training and extension material and promote dissemination to different stakeholder groups within the community – Promote the formation of environmental science clubs at schools – Coordinate various education, training and extension campaigns operating within the district 	<p>Baseline data report</p> <p>School children and communities have greater appreciation of elephant conservation issues</p> <p>Greater participation in environmental clubs at schools with improved understanding of environmental issues</p> <p>More social events linked to environmental and conservation awareness are held</p> <p>Elephant conservation messages are conveyed through art and cultural events & competitions</p>	<p>Test Results</p> <p>Competitions</p> <p>Community focus groups</p> <p>Attendance registers</p> <p>Event documentation</p> <p>Number and type of events</p> <p>Workplans</p> <p>Meeting outputs & records</p>	12 months and ongoing	<p>Consultants</p> <p>Endorsements</p> <p>Community consultations</p> <p>Materials and dissemination</p> <p>School visits</p> <p>Training of trainers / teachers</p> <p>Event costs</p> <p>Marketing</p> <p>Sport kit</p> <p>Coordination costs</p>	<p>CSOs</p> <p>RDCs</p> <p>ZPWMA</p> <p>DEO</p> <p>Communities</p>
3.7 Cultural tourism is developed and marketed as a centre-piece of SEL attractions and linked explicitly to conservation of flagship species including elephant	<ul style="list-style-type: none"> – Promote existing cultural tourism events and attractions and promote incorporation of messages of elephant conservation within these – e.g. Shangani Cultural Festival; GL-Cultural Festival – Explore and develop additional cultural tourism opportunities – including development of interpretive centres, craft centres, museums, monuments, events, etc. and market these – Document and communicate the specific cultural importance of elephant to communities in the SEL and incorporate this into education, marketing, event and cultural messages and interpretative centres. 	<p>Community participation and tourist attendance of cultural events is increased</p> <p>Messages relating to elephant conservation and environmental issues are key themes</p> <p>The number of cultural tourism developments and enterprises is increased</p> <p>Anecdotes, artifacts and oral tradition regarding cultural importance of elephants are recorded and insinuated into marketing strategies and event messages</p>	<p>Tourism records</p> <p>Event records & themes</p> <p>Number of enterprises registered</p> <p>Documents compiled</p>	Ongoing	<p>Costs for :</p> <p>Cultural events</p> <p>Planning</p> <p>Awareness and marketing</p> <p>Travel and events</p> <p>Scoping, feasibility and planning</p> <p>Workshops and consultations</p> <p>Establishment and registration</p> <p>Capex, Opex</p> <p>Marketing</p> <p>Travel & meeting costs</p> <p>Workshops and publications</p>	<p>Communities</p> <p>Traditional leaders</p> <p>Local authorities,</p> <p>Private sector</p> <p>NGOs</p> <p>JV partners</p> <p>Consultants</p>

9.7.3 Social, Economic and Cultural Framework (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
3.8 Regional tourism is promoted	<ul style="list-style-type: none"> – Promote the development of infrastructure critical to accessibility of the region: e.g. border crossing at Pafuri; road development and maintenance; scheduled flights to Chiredzi; etc. – Promote diversification, branding and marketing of SEL-specific tourism products linked within the region and with other attractions in Zimbabwe and neighbouring countries. – Focus special attention on development of community-led tourism initiatives that contribute to the sustainability of the STWC as a movement corridor for elephant – Clear mines from STWC 	<p>Increased tourism traffic and arrivals</p> <p>Infrastructure upgrades</p> <p>Scheduled flights established</p> <p>Pafuri border crossing operational</p> <p>Tourism products are diversified</p> <p>Marketing and branding consultants engaged to develop branding and strategy</p> <p>Scoping, feasibility studies are undertaken</p> <p>Increased number of CB enterprises are operational</p>	<p>Tourism & economic data</p> <p>Upgraded infrastructure</p> <p>Border post</p> <p>Flight schedules</p> <p>Tourism enterprise info</p> <p>Marketing materials</p> <p>Scoping and feasibility documents</p> <p>Business plans and registrations</p>	ongoing	<p>Scoping studies</p> <p>Tenders</p> <p>Workshops and consultations</p> <p>Scoping studies</p> <p>Consultants</p> <p>Development of business plans</p> <p>Infrastructure, equipment, operational costs</p> <p>Marketing</p>	<p>Central Government</p> <p>Local Authorities</p> <p>Communities</p> <p>GLTFCA</p> <p>Donors</p> <p>Private sector</p> <p>RDCs</p> <p>CSOs</p> <p>JV partners</p>
3.9 Policy framework for conservation and CBNRM is well understood by communities and other stakeholders in SEL	<ul style="list-style-type: none"> – Compile factsheets on policy framework for conservation and CBNRM and disseminate to communities and other stakeholders 	<p>Communities have access to existing CBNRM and Policy frameworks</p>	<p>Awareness materials</p> <p>Focus groups & attendance registers</p> <p>Enterprise records</p> <p>Employment records</p>	12 months ongoing	<p>Consultation & document compilation</p> <p>Drafting and production of awareness materials</p> <p>Dissemination of materials</p>	<p>Traditional Leadership</p> <p>Communities</p> <p>RDCs</p> <p>ZPWMA</p> <p>NGOs</p>

9.7.4 Building Conservation Capacity (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Agencies
4.1 Funding to implement the plan secured	<ul style="list-style-type: none"> - Develop and submit bankable project proposals to potential funders - Explore potential business partnerships - Increase capacity and law enforcement coverage by ensuring that all key stakeholders contribute to and are engaged in law enforcement activities: hunting operators, tour operators, and community anti-poaching teams [Links to Output 1.1] - Explore the potential for a dedicated elephant fund for SEL. 	<p>Number of project proposals developed submitted and funded</p> <p>Number of developed and functional partnerships contributing to improved elephant management</p>	<p>Record of funds available for elephant conservation</p> <p>Record of project proposals</p>	2021 and ongoing		ZPWMA Conservancies CSOs Pvt Sector
4.2 Current capacity analysed and needs identified	<ul style="list-style-type: none"> - Assess current capacity - Carry out a needs assessment across the full range of human resources - Carry out a needs assessment for equipment and infrastructure required for effective implementation of this plan - Develop a strategy to address and meet the identified needs 	Needs assessment reports completed by Dec 2020	Records and reports	2021 and ongoing		ZPWM, CM and AMs GCT CSOs
4.3 Capacity for research and monitoring strengthened and collaboration with research institutions enhanced [Linked to and informed by Components 2 and 3]	<ul style="list-style-type: none"> - Develop and implement a multi-disciplinary research and monitoring strategy - Develop and implement a research programme based on that strategy, including graduate studies, post graduate and external researchers as well as ZPWMA researchers - Undertake periodic research meetings / conferences - Recruit and meet demands and requirements for research personnel in Parks and surrounding areas - Collaborate with external research institutions - Develop and implement a mentoring programme for researchers - Procure relevant research equipment <p><i>[See Output 1.3 for development of a laboratory for scene of crime and disease analysis]</i></p>	<p>Functional research programme in place</p> <p>Research meetings held</p> <p>Publications</p> <p>Number of research projects developed and implemented</p> <p>Mentoring plan / number of days spent with experienced researchers</p> <p>Inventory of equipment for research procured</p>	<p>Reports and publications</p> <p>Minutes of meetings</p> <p>Records of field personnel</p>	2021 and ongoing		ZPWMA, TEU Universities, CSOs, Conservancies External Researchers
4.4 Training and retraining programmes established	<ul style="list-style-type: none"> - Carry out training needs assessment for law enforcement, resource and wildlife management, research and monitoring, education and awareness, community elephant management, etc. - Develop and implement strategies based on the needs assessment - Standardise and harmonize training in law enforcement 	<p>Training needs assessment report</p> <p>Training programmes established</p>	Inventory records / assets check list	2021 and ongoing		ZPWMA, RDCs, CSOs, Universities

9.7.5 Coordination, Collaboration and Programme Management (South East Lowveld)						
Output	Activities	Key Performance Indicators	Means of Verification	Time frame	Indicative costs	Lead Agencies
5.1 SEL Regional elephant conservation and management steering committee of 8 established (ZPWMA, SVC, MT, Bubyee Conservancy, Chiefs' rep, GCP, ZRP, RDC) This committee should include a core set of competencies (and can co-opt expertise if needed).	<ul style="list-style-type: none"> - Develop TOR for the steering committee - Identify members - Oversee the implementation of the regional elephant strategy as per national mandate - Meet biannually - Attend national elephant management meetings 	Functional committee meetings held biannually with adequate attendance	Minutes with action points	Established within 60 days of the Regional strategy final document	Travel and accommodation costs	ZPWMA Cluster Manager and Elephant Coordinator
5.2 Links with neighbouring states to confer on the management of shared elephant populations strengthened <i>[GLTFCA Project of elephant landscape?]</i>	<ul style="list-style-type: none"> - GLTFCA coordinator to identify relevant stakeholders to participate in the implementation of the regional elephant action plan - Sustain collaboration with regional partners+(one committee member for the regional committee meetings) - Share knowledge / data of all 5 key components of the plan with the regional partners 	<p>Number of consultative meetings held</p> <p>Tangible regional collaboration and participation</p>	Minutes and action items	Ongoing	Travel and Accommodation costs	ZPWMA CM & GLTFCA Coordinator RDCs
5.3 Coordination between the tourism industry (consumptive and non-consumptive) and the elephant management programme initiated and strengthened	<ul style="list-style-type: none"> - Identify consumptive and non-consumptive operators in SEL - Liaise with SOAZ, ZPHGA, ZATSO, ZHA, etc. - Encourage non-members to be affiliated to relevant associations - Hold quarterly meetings with operators - Consider scale of operations in non-consumptive tourism 	Regular meetings and workshops convened with the operators	<p>Record of meetings and workshop proceedings</p> <p>Database of operators</p>	Immediate and ongoing		Cluster Manager, Southern-ZPWMA ZPHGA SOAZ ZATSO ZHA
5.4 Effective information dissemination and communication strategy implemented	<ul style="list-style-type: none"> - Ensure clear communication of progress against action plan to all relevant stakeholders - Identify target groups, i.e. traditional leaders, school groups, amongst others - Develop a communications strategy, making use of relevant media (print, social, road shows) - Implement communication strategy - Monitor and evaluate 	Outreach programmes conducted	<p>Community strategy document</p> <p>Flyer, brochure, websites, published papers, videos, dramas</p>	Ongoing		Cluster Manager, Steering Committee