

Annex 5 – Interim-Final Progress Report

Identification:

Partners Name: ZIMBABWE PARKS AND WILDLIFE MANAGEMENT AUTHORITY

Budget line: BAC 49 940.00

Expected Accomplishment(s): Capacitated and resourced anti-poaching units, Enhanced understanding of elephant mortality and impact on habitat and Human elephant conflict hotspot areas identified and mapped and strategies to strengthened coexistence implemented.

Output(s): The expected output and results of the project will better inform management through sustaining on-going law enforcement efforts, research and monitoring projects, human and elephant conflict management strategies.

Title of the approved PRC project: An integrated conservation and management approach to African elephants during a period of social and economic crisis in Hwange, Northwest Matabeleland Elephant Region, Zimbabwe.

SSFA starting date: July 2021

Completion date: February 2022

Summary of Status:

Through the funding from AEF, training workshops on SMART AND MIKE were conducted to strengthen law enforcement operations and build the capacity of rangers. Due to availability of gadgets SMART is now being implemented for the first time in Sinamatella. The availability of patrol rations and patrol boots boosted the morale of rangers during the period of economic crises due to COVID-19. Most of the reported cases of human-wildlife conflicts were reacted to and beehives were produced to assist in conflict mitigation and enhancing the livelihoods of rural communities.

Field surveys were conducted which include collecting of lower jaws to determine age and sex of elephants that were affected by drought during the period of 2019-2020. The age-sex structure was determined and baseline data was established for future monitoring of impacts of climate change on elephants. A vegetation survey was also carried out to monitor impacts of elephants on woody vegetation. Permanent vegetation plots were established for long-term monitoring.

Not all cases were attended to due to absence of a vehicle dedicated for community work. The vehicle present is shared amongst operational activities. With SMART implementation, each cyber tracker must have a power bank for power back up on patrols. COVID 19 also affected the implementation of activities as gatherings were restricted. The changes in prices also affected the procurement of required quantities of some equipment.

Activity delivery status

Activity	Description of work undertaken during reporting period	Deliverables	Delivery date	Status of Activity (completed or not completed)	If activity not completed, please describe the reason why and indicate mitigation actions that were taken.
Activity 1: Training and capacity building on the use of SMART and MIKE, this include training of trainers on SMART, MIKE and data analysis	<p>Three trainings were conducted in Hwange National Park's three administrative units (Main Camp, Sinamatella and Robins). A total of 11 trainees participated in the Main Camp workshop. In Sinamatella, a total of 19 trainees participated in the training workshop. The station has not been implementing SMART due to absence of gadgets. The fund assisted in starting the first SMART monitoring system at the station. In Robins, a total of 4 trainees participated in the training. A step-by-step approach was carried out for each aspect and a video was captured for each tutorial to help trainees in aspects covered and to act as reference for future if they forget anything.</p> <p>Topics covered included Opening smart, adding employees, creating, exporting and importing patrols (Using SMART for patrol data management), Exporting configurable data model, running, Importing and exporting queries, importing exporting and running reports.</p> <p>During training, trainers were given printed manuals which they will use as a guide during management of the SMART database and training of other field rangers.</p> <p>One desktop computer was procured for SMART and MIKE database management. A projector was also procured for use during trainings.</p>	3 Training workshops conducted	March 2022	Completed	
Activity 2: Procurement of ranger field equipment for strategic deployments of	<p>Dry rations were procured for use during anti-poaching operations and field surveys for monitoring elephant mortalities and vegetation surveys. These rations were distributed among the different management units in HNP (Main Camp, Sinamatella, Robins, Makona and Umtshibi).</p> <p>Patrol boots: A total of 88 pairs were procured and distributed to</p>	Dry rations procured Patrol boots procured	September-October 2021	Completed	


anti-poaching units	rangers carrying out law enforcement operations in the park. Resourcing of rangers will motivate them to carry out their patrols effectively.				
Activity 3: Support protocols for monitoring elephant mortalities by use of field surveys/ data collection participation on aging carcasses, collection of specimens from carcass and vegetation monitoring;	<p>Jaw collection was done through follow-up visits to sites where mortalities of elephants were reported in HNP. We used 2018-2019 drought carcass location data from game ranger reports. Each jaw was given an identity number (ID) and Global Position System-GPS (coordinate point) recorded. The Age Reference Line (ARL) method was used to age elephant carcasses in the park. A draft manuscript has been submitted for publication.</p> <p>Elephant de-snaring, disease surveillance and disease surveillance was carried out with assistance from the resident veterinary doctor. A calf was rescued from Robins Detema and translocated to an orphanage in Victoria fall and another Calf rescued from a pond and released into forestry area.</p> <p>A database for monitoring elephant mortalities was established as guided by the CITIES MIKE standards.</p> <p>During the field work some of the lower jaws could not be collected as some were stuck in water pans with crocodiles. Photographs were taken which were then used to age the jaws. Pictures were also taken at elephant carcass during collection of specimens which also add in diseases surveillance.</p>	Project report Equipment for field monitoring	April 2021-July 2021	Completed	
Activity 4: Document elephant impacts on vegetation and the utilization of natural and artificial water	<p>A vegetation survey was undertaken to monitor the impacts of elephants on vegetation. Specifically focusing on Utilisation of vegetation around natural and artificial water points.</p> <p>Vegetation impacts on Four key vegetation communities was used for the vegetation assessment (<i>Acacia</i>, <i>Combretum</i>, <i>Mopane</i> and <i>Terminalia</i>). A random number generator was used to produce 60 random points which were at least 25 m to avoid pseudo-replication. 15 plots measuring 20 m x 20 m were established in each vegetation community. Data variables collected were: the species, height, stem diameter, canopy cover, number of stems per plant and elephant damage.</p> <p>The vegetation study was conducted in areas where there is both artificial and natural water sources. The map attached in the vegetation study shows the water points in the park. The 60 plots were located close to different water points but with certain</p>	Project report	June-July 2021	Completed	

	<p>dominant vegetation types. For analysis vegetation type was then uses to document the impacts of elephants on vegetation. The individual plots has formed a baseline for future monitoring of elephant utilization of vegetation around water points.</p> <p>Borehole water level monitoring</p> <p>A water level assessment of boreholes supplying water to artificial water points was conducted in 2020 using a water meter. This continued during the implementation of the project. The data will be used for long term monitoring of underground water levels as the park rely on pumping water during the dry season to support a large number of elephants. The park is experiencing the effect of climate change resulting in frequent droughts, high temperatures and heat waves.</p>				
<p>Activity 5: Sustain protocols for Human-Elephant Conflict (HEC) Management</p>	<p>A human-wildlife mitigation strategy was developed for the Hwange Ecosystem. The goal of the strategy is to create an enabling environment where human and wildlife coexist and implement sustainable techniques in mitigating conflicts to achieve long term ecological, social and economic sustainability. One of the objectives include attending to all HWC reports and mobilize resources for HWC control and mitigation. Through the assistance from the fund we manage to react to human-elephant reports. However, not all cases were attended to due to the absence of a vehicle dedicated for community work and the vehicle present are shared. During reaction data collected include damage caused, number of elephants involved action taken and location of conflict. Out of 750 reports, 559 were attended to. A total of 10 people were killed and 195 were threatened, 507 fields were damaged and 783 cases of fence damage.</p>	<p>Database established Hotspot map for conflicts</p>	<p>December 2021</p>	<p>Completed</p>	
<p>Activity 6: Management of incidence of human-elephant conflicts by use of beehives to stray away elephants around the local</p>	<p>A total of 25 beehives were designed to assist in human-elephant mitigation. Beehive will also create opportunities for income generation via honey production. This will result in positive attitudes towards protected areas and wildlife conservation, improved and diversified livelihoods in the communal areas.</p>	<p>Beehives</p>	<p>December 2021</p>	<p>Completed</p>	

communities living near Hwange National Park.					
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List of attached documents

- Submitted manuscript under review for aging of elephant carcasses
- Report on vegetation survey conducted
- Participants lists for SMART and MIKE workshop

Signature: 

Date: 14 June 2022

Name and title of signing officer: Daphine Madhlamoto Acting Principal Ecologist