

## **DIR29S2\1073**

### **Promoting connectivity to create Living Landscapes in southern Mozambique**

Over half of African elephants occur outside Protected Areas (PAs), resulting in Human-Elephant-Conflict while human development isolates PAs. Solutions involve Biosphere Reserve declarations, consisting of PAs linked by community-owned corridors with occupants practicing elephant compatible livelihoods. We propose a phased approach in Mozambique where collared elephants delineate corridors while rapid response units (RRUs) ensure peoples' safety. Social surveys and educational subcentres enable an understanding of people's needs and facilitate knowledge transfer around crop protection. Overall, elephant corridors promote ecological connectivity.

## CONTACT DETAILS

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# DIR29S2\1073

Promoting connectivity to create Living Landscapes in southern Mozambique

## Section 1 - Contact Details

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### CONTACT DETAILS

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<b>Title</b>	Dr
<b>Name</b>	Michelle
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<b>Website</b>	[REDACTED]
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### GMS ORGANISATION

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Type	Charity/ trusts
<b>Name</b>	Elephants Alive
<b>Phone</b>	[REDACTED]
<b>Email</b>	[REDACTED]
<b>Website</b>	[REDACTED]
<b>Address</b>	[REDACTED]

## Section 2 - Title, Ecosystems, Approaches & Summary

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### Q3. Title:

Promoting connectivity to create Living Landscapes in southern Mozambique

### What was your Stage 1 reference number? e.g. DIR28S1\1123

DIR29S1\1413

### Q4. Key Ecosystems, Approaches and Threats

Select up to 3 biomes that are of focus, up to 3 conservation actions that characterise your approach,

and up to 3 threats to biodiversity you intend to address, from dropdown lists.

**Biome 1**

Savannas and grasslands

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**Biome 2**

Tropical-subtropical forests

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**Biome 3**

*No Response*

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**Conservation Action 1**

Land/water protection (area/resource/habitat)

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**Conservation Action 2**

Species management (harvest, recovery, re-introduction, ex-situ)

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**Conservation Action 3**

Livelihood, economic & other incentives (incl. conservation payments)

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**Threat 1**

Biological resource use (hunting, gathering, logging, fishing)

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**Threat 2**

Natural system modifications (fires, dams)

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**Threat 3**

Residential & commercial (incl. tourism) development

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## Q5. Summary of project

**Please provide a brief summary of your project: the problem/need it is trying to address, its aims, and the key activities you plan on undertaking. Please note that if you are successful, this wording may be used by Defra in communications e.g. as a short description of the project on the website.**

**Please write this summary for a non-technical audience.**

Over half of African elephants occur outside Protected Areas (PAs), resulting in Human-Elephant-Conflict while human development isolates PAs. Solutions involve Biosphere Reserve declarations, consisting of PAs linked by community-owned corridors with occupants practicing elephant compatible livelihoods. We propose a phased approach in Mozambique where collared elephants delineate corridors while rapid response units (RRUs) ensure peoples' safety. Social surveys and educational subcentres enable an understanding of people's needs and facilitate knowledge transfer around crop protection. Overall, elephant corridors promote ecological connectivity.

## Section 3 - Title, Dates & Budget Summary

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## Q6. Country(ies)

Which eligible host country(ies) will your project be working in? Where there are more than 4 countries that your project will be working in, please add more boxes using the selection option below.

<b>Country 1</b>	Mozambique	<b>Country 2</b>	South Africa
<b>Country 3</b>	eSwatini (Kingdom of)	<b>Country 4</b>	Zimbabwe

Do you require more fields?

- Yes  
 No

## Q7. Project dates

<b>Start date:</b>	<b>End date:</b>	<b>Duration (e.g. 2 years, 3 months):</b>
01 April 2023	31 March 2026	3 years

## Q8. Budget summary

Year:	2023/24	2024/25	2025/26	2026/27	Total request
<b>Amount:</b>	£134,343.00	£151,217.00	£164,298.00	£0.00	<b>£</b> 449,858.00

**Q9. Proportion of Darwin Initiative budget expected to be expended in eligible countries: %**



Q10a. Do you have matched funding arrangements?

- Yes

What matched funding arrangements are proposed?

██████████ matched funds via these organisations (period):

CAH Private Philanthropy (June 2022 – May 2025), Elephant Crisis Fund (ECF: Jul 2022 – Jun 2024), Jamma Foundation (JF: Jan 2022 – Dec 2023), Kate Sanderson Bequest Fund (Apr 2022 – Mar 2023) Oak Foundation (Apr 2022 – Apr 2025), Rufford Foundation (Oct 2022 – Nov 2023), Save the Elephants (STE: Apr 2023 – Mar 2025), USFWS (Aug 2022 – Jul 2024).

██████████ is matched by EA's main partners, specific to BCF (Apr 2023 – Mar 2025): ECF for HEC (Dr. Lucy King), For Elephants (Dr. Kari Morfeld), PAMS Foundation (Krissie Clark), Sensing Clues (Dr. Jan Schakel)

Q10b. Total confirmed & unconfirmed matched funding (£) [REDACTED]

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Q10c. If you have a significant amount of unconfirmed matched funding, please clarify how will you fund the project if you don't manage to secure this?

A total of [REDACTED] of the total funds of the project are matched via EA collaborators and partners (£ [REDACTED]). We are requesting [REDACTED] of the total budget (requested, confirmed and unconfirmed funds) from BCF. As the unconfirmed funds only make up [REDACTED] of the funds required, we are confident that we will secure this through the substantial network of supporters shared amongst the project partners and between MWA and EA specifically.

## Section 4 - Problem statement

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### Q11. Problem the project is trying to address

**Please describe the problem your project is trying to address in terms of biodiversity and its relationship with poverty. What is the need, challenge or opportunity?**

**For example, what are the drivers of biodiversity loss that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems? Please cite any evidence you are using to support your assessment of the problem (references can be listed in a separate attached PDF document).**

Connecting ecosystems to enable essential ecological functions at landscape scale is of critical biodiversity importance. Linked ecosystems promote ecological functions such as migration, hydrology, nutrient cycling, pollination, seed dispersal, food security, climate resilience and disease resistance at landscape scale<sup>1</sup>. A key target for the Global Deal for Nature involves the reconnection of isolated megafaunal reserves via corridors<sup>2</sup>. Connecting Protected Areas (PAs) across political borders, alongside building more sustainable, rural economies in collaboration with communities that live in and around corridors delineated by elephant movements, represents an important long-term solution to cooperatively address broader conservation concerns centred around biodiversity<sup>3</sup>.

Elephants as keystone species and ecosystem engineers<sup>4</sup> with large spatial requirements, are capable of forging vital corridors between PAs<sup>5,6</sup>. However, these linkages are being threatened by ivory poaching practices and increasing competition over resources with burgeoning human populations<sup>7</sup>. Escalating human-elephant-conflict (HEC) directed towards elephants, can thus differ in severity and take the form of poaching, retaliatory killing or crop-raiding. Continentally, elephants are listed as Endangered (IUCN Red List of Threatened Species<sup>8</sup>). Currently, 54.7% of elephant's range is found outside of PAs<sup>9</sup> and 76% of elephants are found in international transboundary populations<sup>10</sup> such as those sharing borders between Mozambique, Zimbabwe, South Africa and Eswatini.

In 2018, Elephants Alive (EA) and the Mozambique Wildlife Alliance (MWA) identified corridors linking PAs across international boundaries. However, as 55% of Mozambique's human population lives on less than \$1 per day<sup>11</sup> subsistence farmers are often left vulnerable through climatic events and conflict over limited food sources with elephants. Poverty and corruption are known to be stronger catalysts of poaching than the lack of law enforcement<sup>12</sup>. Consequently, Mozambique has been identified as one of the countries with severe levels of illegal elephant killings within PAs<sup>13,14</sup>. Outside of PAs, where elephants cross human dominated landscapes primarily at night<sup>15</sup>, HEC involves crop-raiding and it occurs most where people have neither the experience of coexisting with elephants nor the financial resilience or tolerance such events<sup>16</sup>.

If elephants are to survive, we need scientific knowledge and an intimate understanding of their

movements and spatial requirements in combination with understanding the needs of the people that share the landscape with elephants. This is particularly necessary where vital corridors have been identified and where innovative ways are needed to make people's livelihoods compatible with conservation outcomes. These challenges call for an understanding of the socio-economic needs of the people sharing the landscape with elephants to empower them as benefactors of community owned corridors delineated by collared elephants. The corridors are needed to accommodate compressed subpopulations of elephants as part of a larger transnational meta-population, facilitating increased genetic resilience, ensuring the preservation of phenotypic traits (large tusks), and decreasing pressure on biodiversity within isolated reserves. We propose a transnational community-based approach to protect African elephants and their habitat through a unique multidimensional and integrated approach of community engagement, knowledge creation, and practical conservation action. We use innovative ways to increase people's tolerance and safety, protecting assets and increasing food security.

## Section 5 - Darwin Objectives and Conventions

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### Q12. Biodiversity Conventions, Treaties and Agreements

**Q12a. Your project must support the commitments of one or more of the agreements listed below.**

**Please indicate which agreement(s) will be supported and describe which objectives your project will address.**

- Convention on Biological Diversity (CBD)
- Convention on International Trade in Endangered Species (CITES)
- Convention on the Conservation of Migratory Species of Wild Animals (CMS)
- Ramsar Convention on Wetlands (Ramsar)
- United Nations Framework Convention on Climate Change (UNFCCC)
- Global Goals for Sustainable Development (SDGs)

### Q12b. National and International Policy Alignment

**Using evidence where available, please detail how your project will contribute to national policy (including NBSAPs, NDCs, NAP etc.) and in turn international biodiversity and development conventions, treaties and agreements that the country is a signatory of.**

National Strategy and Action Plan of Biological Diversity of Mozambique (2015-2035) (NBSAP)  
Contributing to all four of the strategic goals by reducing the causes of biodiversity loss/degradation, protecting biodiversity, improving benefit-sharing and participation amongst citizens.  
Strategy and Action Plan for the Conservation and Management of Elephants in Mozambique 2010-2015  
Conserving free-roaming elephants and their habitats whilst ensuring economic development for co-existing communities.  
African Convention on the Conservation of Nature and Natural Resources  
Protecting natural resources to ensure the well-being of the Mozambican population.  
Framework Convention on Climate Change:  
Facilitating the development of a healthier ecosystem which can act as a carbon sink.  
National Ivory and Rhino Action Plan (NIRAP) 2020-2022 (CITES):  
Contributing to awareness of the importance of elephants within an ecosystem whilst highlighting the socio-economic costs of poaching.  
CBD

8 & 10 – Implementation of human-elephant-coexistence management incorporates both community HEC practices and considers biodiversity in decision making.

12 – Training of RRUs, women and community members in HEC mitigation and alternative income sources.

13 – Promoting biodiversity conservation through media and educational programmes.

CITES

African elephants in Mozambique are classified as Appendix I. This project promotes human tolerance of and protection over elephants. Mozambique is also part of the CITES Mike Programme which aims to provide objective information on illegal elephant killings.

CMS

African elephants are a migratory species covered by CMS. This project aims to facilitate safe passage for transboundary migratory.

Sustainable Development Goals (SGDs)

The conservation impact will contribute to three of the SGDs:

By protecting, restoring and promote sustainable use of terrestrial ecosystems Life on land is improved and, in the process, Clean Water and Sanitation as well as Climate Change will be buffered against because of the socio-economic support and reforestation activities of people sharing the elephant corridor.

The social impact will contribute to nine of the SGDs:

No poverty; Zero Hunger; Good Health and Wellbeing; Gender Equality; Decent work and Economic Growth; Reduced Inequalities due to sustainable livelihoods; Responsible Consumption and Production, Peace, Justice and Strong Institutions will be realized due to the strong Partnerships for the Goals.

MoU between South Africa and Mozambique in the field of Biodiversity, Conservation and Management: Promote increased cooperation for the management of transboundary protected areas.

Lubombo Transfrontier Conservation Area (LTFCA) agreement between South Africa, Mozambique and Eswatini:

Linking the Great Limpopo Transfrontier Conservation Area to the LTFCA increases the potential for socio-economic upliftment whilst improving regional ecosystems management.

BIODEV2030 project:

Integrating biodiversity conservation considerations into economic sectors

## Section 6 - Method, Change Expected, Gender & Exit Strategy

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### Q13. Methodology

**Describe the methods and approach you will use to achieve your intended Outcome and contribute towards your Impact. Provide information on:**

- how you have reflected on and incorporated **evidence and lessons learnt** from past and present similar activities and projects in the design of this project.
- the specific approach you are using, supported by **evidence** that it will be effective, and **justifying why you expect it will be successful** in this context.
- how you will undertake the work (activities, materials and methods)
- what will be the **main activities** and where will these take place.
- how you will manage the work (governance, roles and responsibilities, project management tools, risks etc.).

This project represents the culmination of many years of dedicated and systematic work to find science-based solutions to practical problems. This application forms part of a long-term project with five



phases, phases 1-2 have been implemented since 2018 but require matching support.

#### PHASE 1 (Year 1 - 3)

USE ELEPHANT MOVEMENT PATTERNS to formulate a landscape-approach to HEC mitigation, comprising of pathways, buffer zones, and mitigation strategies<sup>17</sup>.

Seven years of collaring elephants in Mozambique have identified elephant corridors. The first elephant was collared outside of PAs in 2018. Elephant corridors will be redefined with additional funding by BCF to collar 15, 10 and 5 elephants from Year 1 to 3, respectively. Existing corridors have been identified south of Limpopo NP, east towards Maputo Special Reserve with the Futi corridor linking Tembe NP in SA and westward across Eswatini. Movements between LNP, Banhine- and Zinave NPs to the east of LNP have also been identified. Collaring operations will be conducted by MWA and EA with substantial experience (more than 200 elephants collared over time) to:

- Identify HEC-hotspots within the landscape.
- Calculate crop-raiding probability maps to inform mitigation strategies.
- Map vital corridors which ensure PA connectivity.
- Develop digital twin models to predict and prevent HEC.
- Enable the collection of fecal samples for stress hormone analyses as indicator of corridor safety.

#### PHASE 2 (Year 1 - 3 and beyond)

OFFER IMMEDIATE SAFETY TO PEOPLE AND THEIR ASSETS by deploying RRUs and implementing non-income generating mitigation strategies as community empowerment is critical to ensure that socio-economic needs are met<sup>18</sup>.

- The first RRU was deployed in 2020, offering safety to people and mitigating HEC (76% success rate). A RRU consists of mobile 2-man teams, responding to HEC to change human- and elephant behavior. At workshops they deliver mitigation toolboxes (containing noise aversion tools) and educate community members, upscaling their efforts over the larger area. Another RRUs is needed with existing funding from JF and additional equipment requested from BCF.

- In 2022 the first small-scale electric fences (10-15ha) were erected to instantly protect food crops, thereby increasing people's tolerance and susceptibility to mitigation strategies. Concurrently, mitigation demo-projects involving chili-oil rag fences<sup>19</sup>, smelly elephant repellents<sup>20</sup>, flashing lights<sup>21</sup> and smoking chili bricks/tins were tested in SA for roll out in Mozambique with funding from the ECF and with the addition of the Kasaine Metal Strip Fence<sup>22</sup>.

#### PHASE 3 (Year 1 - 3)

CONSULT with the community to develop long-term, income generating mitigation strategies:

- Questionnaire surveys will be distributed in Year 1 and Year 3 to gather demographic data for modelling human development over time and to assess the communities' attitude towards HEC. The social surveys will be conducted by an experienced independent consultant, financed by JF in Year 1 and part funded by BCF in Year 3.

- At the educational hub in SA, the all-female Black Mamba Anti-Poaching Unit (APU) received training in beekeeping, food-, elephant unpalatable crops- and medicinal plant production. As women are more likely to ratify environmental treaties, uphold peace treaties for longer and are vital for efficacy and food security plans<sup>23</sup>, our proof-of-concept projects in SA will be rolled out to the women in Mozambique to upskill them to use both income- and non-income generating barriers to deter elephants. The established hub in SA will be replicated as watchtowers, functioning as skill transfer sub-centres. Two watchtowers will be funded by the ECF with the third funded by BCF.

#### PHASE 4 (Year 1 - 3 and beyond)

OFFER LONG-TERM SUPPORT for proactive mitigation methods that diversify income, increase financially resilience, and increase tolerance towards elephants.

- Train women to use income generating barriers according to literature based strategies<sup>24-25</sup> and the experienced gained working with the Black Mamba APU.

- Establish income-generating beehive fences and elephant-unpalatable crops with an essential oil- or medicinal market value (chili, Cape gold, Cape snowbush, rosemary, borage, bulbine, fever tea, hibiscus and worm wood<sup>26</sup>).

- Offer additional income which is less rainfall dependent (promoting house stays to tourists, adventure tourism, marula nut products, plastic upcycled products etc.27)

PHASE 5 (Post project period)

REPLICATE SUCCESSFUL MODELS along the length of the corridor, establishing community-owned coexistence elephant corridors, embedded within larger Biosphere Reserves.

- Demarcate corridors in southern Mozambique and replicate watchtowers.

- Replicate reactive short-term mitigation strategies.

- Replicate proactive longer-term, income generating mitigation strategies.

- Reforest corridors to provide safety nets for elephants via income generating woodlot approaches.

Workshop policy and legislative changes requires to offer governmental protection of community owned corridors.

## Q14. Capability and Capacity

**How will you support the strengthening of capability and capacity in the project countries at organisational or individual levels, please provide details of what form this will take, who will benefit, and the post-project value to the country.**

The appropriateness, applicability and efficiency of methods proposed to decrease HEC, will enhance the capacity of local farmers to protect their assets (food crops) from crop-raiding elephants while increasing their capability to do so. Income generating barriers can diversify their income. Beehive fences produce honey, while the bees increase the yields of the crops through their pollination services and protect them from elephants. Learning to grow climate tolerant elephant unpalatable crops with a high essential oil- or medicinal value, and a ready market, will also offer food crop protection and alternative income. As with the proof-of-concept project in SA with the Black Mamba APU, women living in corridor regions can be upskilled to increase their agricultural capability while transferring their skills via the discussion sub-centers (watch towers) along the length of the corridor. Simultaneously, the deployed RRUs ensure human safety, but also increase capacity via training workshops. Over a three-year period 750 community members in 60 workshops can be trained to protect themselves and their livelihoods through reactive means (using toolkits containing noise aversion items like bangers, screamers or crackers).

The selected project and co-project leaders have an excellent track record of increasing capacity and enhancing capability where they work. Publicising the project through scientific and popular platforms will further increase capacity beyond Africa. As a wide range of countries (South Africa, Mozambique, Zimbabwe and Eswatini) are already involved in the project due to the transboundary movements of elephants, and as the project partners come from Tanzania, Kenya, the USA and the Netherlands, the project already has global exposure and the potential to enhance capability and capacity in Mozambique which is listed as a least developed, low-income country.

## Q15. Gender equality

**All applicants must consider whether and how their project will contribute to reducing inequality between persons of different gender. Explain how your understanding of gender equality within the context your project, and how is it reflected in your plans. Please summarise how your project will contribute to reducing gender inequality. Applicants should, at a minimum, ensure proposals will not increase inequality and are encouraged to design interventions that proactively contribute to increased gender equality.**

In southern Mozambique, women take up small-scale commercial farming and informal commerce to replace men who are out of town for migrant work. With illiteracy rates reaching up to 70% in rural areas, far higher than that of men<sup>28</sup>, nearly 90% of women work in the agricultural sector. However, due to the

lack of access to resources and commercial markets, most women cannot enter the commercial agricultural market whilst having domestic work responsibilities. Consequently, we will focus on providing equal novel upskilling and income-generating opportunities for women, facilitating their increased financial resilience and independence. As with our proof-of-concept projects in South Africa, working with the all-female Black Mamba APU, we upskilled a select number of women in beekeeping, food- and elephant unpalatable crop permaculture skills as well as medical plant garden agricultural practices. This broadened their skill set beyond wildlife security only. Likewise, we believe that we can diversify women in Mozambique's skillset as they become empowered as specialised agricultural extension officers. In the post-project phases of the project, they can also be upskilled to do snare sweeping and various wildlife security tasks (as the Black Mamba APU), as well as help with reforesting vegetation safety nets needed by elephants as part of a strategic income generating woodlot scheme. As with all women, the transfer of coexistence knowledge will be facilitated across generations. Exchange programs between South Africa and Mozambique could facilitate knowledge transfer.

In this grant application we have 83% of the staff listed as women and 17% as male. Furthermore, of the partner organisations 75% of them are female led with 24% male led.

## **Q16. Awareness and understanding**

**How will you raise awareness and understanding of biodiversity-poverty issues in your stakeholders, including who your stakeholders are, what approaches/formats/products will you use, how you will ensure open and free access to all data, and how will you know that the messages are understood?**

The stakeholders include community representatives, participating NGOs, researchers, wildlife managers, the governmental representatives of the countries that share trans-boundary elephants, and the benefactors of the cause. Workshops will regularly be held at the Namaacha Valley, representing the epicentre of the work that will be replicated elsewhere. The most important people that need to understand the biodiversity-poverty issues at stake are those living in the corridor regions. The watch towers/discussion sub-centers will function as critical conversation hubs. The demonstration projects will prove effective in displaying an array of mitigation techniques to visitors, thereby affording them the opportunity to implement what would work best for their local circumstances. Both non-income and income generating mitigation barriers will be implemented on a small scale. Implementing the more long-term, proactive income generating barriers i.e., beehives and unpalatable crops with a market value (essential oil or medicinal), will represent experiential proof that living with elephants can be a bonus and not a burden. The educational and mentoring role of the RRU will further assist with the messaging. Additional funding can be sought for exchange programs with the Black Mamba APU to further upskill women. A change in attitude from conflict to coexistence with elephants will be assessed over time via the social surveys. Other, more affluent stakeholders will be kept up to date with regular social media posts, popular news articles, scientific papers, conference presentations and annual reports. Open access to methods and results will be shared and presented in the form of illustrated manuals to community members so that are easily understood. Know-how will be openly obtainable via the websites for partnering organisations. Elephant tracking data will be available via the Earth Ranger platform, given to users that require the information for management purposes and who don't pose a security risk to the elephants.

## **Q17. Change expected**

**Detail the expected changes to both biodiversity and poverty reduction, and links between them, this work will deliver. You should identify what will change and who will benefit a) in the short-term (i.e. during the life of the project) and b) in the long-term (after the project has ended) and the potential to scale the approach.**

**When talking about how people will benefit, please remember to give details of who will benefit, differences in benefits by gender or other layers of diversity within stakeholders, and the number of beneficiaries expected. The number of communities is insufficient detail – number of households should be the largest unit used.**

## BIODIVERSITY

### Short-term

- Increased transboundary moving elephants (35) between PAs, facilitated by increased protection due to short-term HEC mitigation strategies.
- Reduced HEC results in decreased hostility amongst communities towards crop-raiding elephants, reducing the number of lodged grievances and ultimately decreases the number of elephants that the wildlife authorities are called to remove.
- Applying short-term HEC mitigation strategies that disrupt elephants' crop-raiding strategies facilitates behavioural modification in elephants.

### Long-term

- Increasing safety benefits to elephants will cause greater use of potential elephant corridors and decreased stress-related behaviour (predominantly nocturnal movements) and levels (faecal stress hormone levels)
- Facilitation of safe linkages between PAs facilitates the transfer of genetic traits, particularly phenotypic traits such as large tusks, between isolated PAs.
- As human-elephant-coexistence is perpetuated, elephant herds and not only bulls will also start utilising the corridor.
- Movement along corridors relieves pressure on biodiversity within previously isolated habitats, therefore allowing seasonal habitat recovery.
- Two Transfrontier Conservation Areas will be linked across national boundaries and involving up to 10 PAs.
- Removes obstacles to migration
- Corridor moving elephants maintain the "institutional knowledge" of suitable routes which can be used for compatible land-use planning.
- Gazettement of a community wildlife corridor ensures decreased development and deforestation rates, and expansion of PA coverage, particularly areas classified as other effective area-based conservation measures (OECM).
- Improving the socio-economic circumstances of the communities living within/near the corridor decreases their dependence on natural resources.
- The realization of improved ecosystem resilience and supporting biodiversity objectives where elephants and people need to coexist.

### Potential approach to scale up

The potential to scale this approach involves developing a network of corridors delineated by collared elephants and embedding these vital linkages within a Biosphere Reserve that can stretch across neighbouring countries sharing elephants. This will result in Improved ecosystem resilience for healthy elephant populations that supports biodiversity objectives.

## POVERTY REDUCTION

The area flagged by corridor moving elephants currently includes 6 specific districts, covering an area of 36.707km<sup>2</sup> and housing 138 466 individuals. Short-term poverty reduction includes a rapid decrease in the number of crop-raiding incidences which negatively affects food security. Beehive fences increase crop production due to their pollination services.

### Long-term

- Introduce income-generating alternative crops will increase the communities' financial resilience and food security through income diversification.
- Work towards tourism strategies aimed at increasing the financial security of people will help to ensure socio-economic development in conjunction with wildlife needs.
- Promote the upskilling women into social role models who have more influence in the community and

decision-making process.

Potential approach to scale up

- Discussion sub-centres/watchtowers will act as a centre for knowledge transfer where local and continental NGOs can visit to learn about the various mitigation methods and their efficacy.
- Women, as social role models, would transfer their skills to the younger generation, promoting coexistence values with elephants. Second and third-generation conservationists by uplifting women as the natural educators and land cultivators within communities.

## **Q18. Pathway to change**

**Please outline your project's expected pathway to change. This should be an overview of the overall project logic and outline why and how you expect your Outputs to contribute towards your overall Outcome and, longer term, your expected Impact.**

Our theory of change model contains three pathways:

Ecological pathway: Increased understanding of elephant movements in human dominated landscapes builds understanding of their habitat and safety needs, critical for expanding linkages between PAs.

Beneficiation pathway: If people know the value of elephants and have access to those benefits, they will pro-actively engage.

Community engagement pathway: By engaging communities in HEC strategies and by empowering women as role models, coexistence can be realised.

Expected change during the project

For elephants and their habitat:

- Intensified use of corridors and decreased stress.
- Expansion of elephants' range with increased safety.
- Decrease in HEC instances and poaching incidents

For people:

- Increased engagement in conservation and fair access to the benefits of living with elephants.
- Empowered women provide more effectively for their families, promoting the benefits of conservation and ecosystem services to the next generation.
- Tourism benefits to highlight HEC models and related products.

Expected change after the project:

For elephants and their habitat:

- Improved ecosystem resilience for healthy elephant populations.

For people:

- Reduced HEC and increased ecosystem goods and services.
- Sustained community engagement.
- Next-generations' conservation through uplifted women.

Replication of the model throughout southern Africa.

## **Q19. Exit Strategy**

**How will the project reach a sustainable point and continue to deliver benefits post-funding?**

**How could post-project scaling of the approach (if proven) be delivered: through new finance or through uptake by stakeholders or other mechanisms? Are there any barriers to scaling and how will these be addressed?**

**How will the required knowledge and skills remain available to sustain the benefits?**

The project is based on a pre-existing collaboration between EA and the MWA which started with the collaring of elephants in southern Mozambique to better understand transboundary movements. This collaboration will continue beyond the time frame of this project. However, we would like to empower the local stakeholders to implement the proposed HEC mitigation strategies beyond this project to ensure the sustainability of their livelihoods and so to move from HEC to coexistence. If people derive a benefit from living with wildlife, they will continue to do so.

By consulting with communities via social surveys and understanding their needs, thereafter, engaging with them as active stakeholders and by giving them ownership of the proposed strategies and related products, sustainability can be realised. The experience gained from the proof-of-concept project in SA with the Black Mamba APU, will assist with market research to enable income from alternative crops post the project period. High value products (honey and essential oil or medicinal products) attached to a good cause and conservation story will have greater value than any large scaled purely commercial product. Ensuring that knowledge and skills are continually disseminated will increase the technical capability and efficiency of especially women within the community. Ratifying the corridors post the project into holistic Biosphere Reserves will ensure that the natural resources needed for small scale collective farming are not depleted by overcrowding and development. To build resilience into the strategy, we propose that post the project, the community explore means by which a third of their current income becomes less weather dependent<sup>29</sup>. Continual diversification of income is needed to combat HEC, but also to combat global climate change. Marketing and dissemination of the success stories of the project, will ensure donor support for at further two years, whereafter the project should aim towards self-sufficiency.

**If necessary, please provide supporting documentation e.g. maps, diagrams, references etc., as a PDF using the File Upload below:**

*No Response*

## Section 7 - Risk Management

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### Q20. Risk Management

**Please outline the 6 key risks to achievement of your Project Outcome and how these risks will be managed and mitigated, referring to the [Risk Guidance](#). This should include at least one Fiduciary, one Safeguarding, and one Delivery Chain Risk.**

**Projects should also draft their initial risk register using the [Risk Assessment template](#) provided, and be prepared to submit this when requested if they are recommended for funding. Do not attach this to your application.**

Risk Description	Impact	Prob.	Gross Risk	Mitigation Header	Residual Risk
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<b>Fiduciary</b>	<p>The mishandling of funds is a potential risk when various smaller stakeholder groups are involved. However, major expenditures within the project would only be conducted by MWA and EA personnel, ensuring high accountabilities for all transactions.</p>	Moderate	Rare	Rare	<p><b>Share &amp; Reduce</b> It is important to ensure that all major parties are responsible and accountable for the project expenses. Parties will require a transparent accounting system, where all transactions are jointly discussed and thereafter accurately recorded post-expenditure. This system will help reduce the risk of the misuse of funds.</p>	Rare
<b>Safeguarding</b>	<p>Due to the nature of their work, those staff employed within the Rapid Response Units are placed at risk by preventing elephant crop raiding events at night. Staff safety thus needs to be prioritised when such units are deployed across the study site.</p>	Severe	Unlikely	Possible	<p>Whilst the threat cannot be avoided, it can be reduced by ensuring: a) the 'elephant shepherds' are adequately trained on elephant behaviour before deployment, and b) early warnings provided to them by MWA and EA ensure that they are able to mitigate against elephants prior to crop raiding events.</p>	Possible
<b>Delivery Chain</b>	<p>As the project involves various phases, the likelihood of risks is increased across the delivery chain. Breakdowns in chains could have severe project implications. This ranges from not preventing conflict with elephants towards not finding alternative income sources.</p>	Severe	Unlikely	Possible	<p>The project needs to work within its framework, avoiding overpromising and adding unintended additional risks. Community-support is vital for project success, and thus communities need to be a part of project planning at all levels, thus ensuring the delivery model is not stalled as a particular level.</p>	Possible

**Risk 4**

Contextual: in-country Socio-political events or unrest, or natural disasters. Unexpected drought conditions in southern Mozambique would place pressure on certain crop-types which would be grown, as well as the occupancy of beehives by honeybee swarms. This could affect income revenue for community members.

Major

Unlikely

Possible

Due to the variety of alternative crop types available, we would focus on crop-types which are most resilient during drought conditions. Resilience can be built by having a third of revenue, less rainfall dependent. Dependent on the severity of the drought, honeybee swarms can be maintained through supplementary

Possible

**Risk 5**

Operational. The changeover of staff (and their experience within the project), both on the ground and at management levels could result in project disruptions. The same would occur if relations between partners were severed.

Moderate

Unlikely

Rare

Share & Reduce  
Parties involved in daily operations of the project need to ensure that project information is shared amongst relevant staff to reduce the risk of information being lost upon staff changeover. Signed MOUs between parties are required for legal accountability, including an understanding of fund sourcing and expenditure.

Rare

**Risk 6**

Reputational. The project requires the joint efforts of parties from both Mozambique and South Africa to cooperate both together and with Mozambican political and community authorities. The fallout between any of the groups would affect the sustainability of the project.

Major

Rare

Rare

Share & Reduce  
The strength of this project is that groundwork has already been performed by the MWA and the successful RRU. Both political and community buy-in is thus encouraged through results. The past success of the MWA-EA partnership also lessons the likelihood of a lack of partnership delivery.

Rare

## Section 8 - Implementation Timetable

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### Q21. Provide a project implementation timetable that shows the key milestones in project activities



**Provide a project implementation timetable that shows the key milestones in project activities. Complete the Word template as appropriate to describe the intended workplan for your project.**

Implementation Timetable Template

**Please add/remove columns to reflect the length of your project. For each activity (add/remove rows as appropriate) indicate the number of months it will last, and fill/shade only the quarters in which an activity will be carried out. The workplan can span multiple pages if necessary.**

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## **Section 9 - Monitoring and Evaluation**

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### **Q22. Monitoring and evaluation (M&E)**

**Describe how the progress of the project will be monitored and evaluated, making reference to who is responsible for the project's M&E.**

**Darwin Initiative projects are expected to be adaptive and you should detail how the monitoring and evaluation will feed into the delivery of the project including its management. M&E is expected to be built into the project and not an 'add' on. It is as important to measure for negative impacts as it is for positive impact. Additionally, please indicate an approximate budget and level of effort (person days) to be spent on M&E (see [Finance Guidance](#)).**

Monitoring and evaluation (M&E) can be divided into four aspects which includes delineation of corridors and use by elephants, reduction in HEC, increase in crop yields by people living with elephants and a change in attitude indicative of moving from HEC to coexistence values. Data will be collected by elephants with collars, the RRUs and social surveys as well as field-based monitoring by community members of beehives and crop production. These data will be collated monthly with reporting conducted by the Project- and Co-Project leaders. Impact will be monitored in terms of providing ongoing training workshops, capacity and capability enhancement within country and dissemination of information (via the website and annual reports).

1) Delineation of corridors and their use by elephants

- Modelling the outcomes of expected corridor use- versus observed corridor use (Year 1-3) will be published as a science paper

- Evaluation of faecal samples over time will indicate whether stress is decreasing within corridors due to reduced HEC which may transcribe into more cows and not only bulls using corridors as family units are more risk adverse than bulls. The former will be published as a science paper while the latter reported by the RRU and written into reports.

2) A reduction in HEC

- Evaluation of the monitoring reports from the RRUs should reflect less deployment days to mitigate HEC, less reported HEC incidents and more effective mitigation over time which will be published in the scientific and popular domain.

- Social survey analysis will also evaluate changes in the number of HEC reports over time

3) Increases in crop yields and resulting financial benefits

- Increased food crop yields will be M&E in conjunction with increased beehive occupation, upping the pollination services and publicising the results (Year 3).
  - M&E of decreased crop losses due to an increase in the number and extent of use of income- and non-income generation barriers around food crops will be reflected in social survey results that will be publicised.
  - Social surveys will evaluate the increase in income over time (Year 1 and Year 3) as people need to buy less food (increased food crop production), have diverse income streams (honey, essential oil and medicinal plant sales) and have income to buffer crop losses when elephants do crop-raid.
- 4) Moving from HEC to coexistence values (M&E through social surveys)
- Data analysis will reveal an understanding of the financial benefits derived by elephant use of the corridor (increased employment, less poverty due to diversifying income and protecting assets).
  - Data analysis will reveal a willingness to adopt the post project goals of a Biosphere Reserve due an increased understanding of enhanced agricultural practices that don't denude the land, thereby biodiversity objectives overall with a publication of the results.
  - Evaluation of the RRU reports should indicate a decrease in retaliatory killings or poaching events despite an increase in corridor use, as people adopt coexistence values and shift their attitudes over time.

<b>Total project budget for M&amp;E in GBP (this may include Staff, Travel and Subsistence costs)</b>	£ [REDACTED]
<b>Percentage of total project budget set aside for M&amp;E (%)</b>	[REDACTED]
<b>Number of days planned for M&amp;E</b>	730

## Section 10 - Logical Framework





### Q23. Logical Framework (logframe)

Darwin Initiative projects will be required to monitor and report against their progress towards their Outputs and Outcome. This section sets out the expected Outputs and Outcome of your project, how you expect to measure progress against these and how we can verify this.

- [Stage 2 Logframe Template](#)

The **logframe template** (N.B. there is a different template for Stage 1 and Stage 2) needs to be downloaded from Flexi-Grant, completed and uploaded as a PDF within your Flexi-Grant application – **please do not edit the logframe template structure (other than adding additional Outputs if needed) as this may make your application ineligible.**

**Please upload your logframe as a PDF document.**

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Impact:

Ensuring the long-term preservation of one of southern Africa's largest transfrontier elephant populations through the establishment of a community-owned and income-generating wildlife corridor.

#### Outcome:

Elephant crop losses significantly reduced, perceptions towards elephants improved and retaliatory killings reduced. Sustainable HEC mitigation strategies, facilitating financial resilience, are adopted by communities living alongside a recognized wildlife corridor.

### Project Outputs

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#### Output 1:

Further understanding of the motivation behind elephant movements from core conservation areas into peripheral PAs, as well as their crop-raiding strategies (Phase 1).

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#### Output 2:

Ensuring human and elephant safety with the establishment and deployment of an additional Rapid Response Unit (RRU) and ensuring the protection of human assets through the establishment of non-income generating barriers (Phase 2).

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#### Output 3:

Training and capacity building in sustainable and gender-equitable non-income and income-generating HEC mitigation opportunities promoted at watch towers as discussion sub-centres, whilst facilitating the understanding of the socio-economic needs of affected communities and their attitudes towards wildlife (Phase 3).

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#### Output 4:

Establishment and development of income-generating barriers within the corridor (beehive fences and elephant unpalatable crop types with a market value) (Phase 4)

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#### Output 5:

Increased knowledge and research on human-elephant-coexistence and ecological connectivity at local and national level. Successful models (post-application period) are replicated to upscale solving HEC at landscape level resulting in the establishment of biosphere reserves and reforestation schemes with functioning as vegetation steppingstones for elephant using the corridors.

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#### Do you require more Output fields?

**It is advised to have fewer than 6 Outputs since this level of detail can be provided at the Activity level.**

No

### Activities

**Each activity is numbered according to the Output that it will contribute towards, for example, 1.1, 1.2, 1.3 are contributing to Output 1.**

Activities (each activity is numbered according to the output that it will contribute towards  
1.1 Collar 15, 10 and 5 elephants in strategic locations in compliance with animal ethics from Year 1-3, respectively (cooler months for elephant safety)

- 1.2 Spatial analysis of elephant movements through remote sensing/GIS, and field-based data collection in Year 1-3
- 1.3 Spatial analysis of natural resources (plant spp. or vegetation communities) through remote sensing/GIS (Year 1), ground truthing by Year 3 to determine movement drivers
- 1.4 Link laboratory analysis (glucocorticoids) with movement data for between year comparison (Year 1-3) and compare with baseline (KNP complex) in Year 3
- 2.1 Deploy RRUs to mitigate HEC Year 1-3
- 2.2 RRU hosts educational workshops in Year 1
- 2.3 Comparative data analysis of HEC where RRU operate in relation to other areas in Southern Mozambique within each year (Year 1-3)
- 2.4 Establish 4 types of non-income generating barriers as demonstration plots in the Namaacha Valley (Year 1)
- 3.1 Construction of watch towers for hosting of educational orientated workshops setup and record keeping of attendees in Year 1-3 with one tower a year
- 3.2 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on gender-based analyses
- 3.3 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on resource use analyses
- 4.1 Replication and testing of 2 income generating barrier types (beehive fences Year 1, Plant based agriculture Year 2-3) at 2-3 farms (20-25 study sites)
- 4.2 Spatial analysis through remote sensing/GIS, and field-based data collection of elephant movements in Year 1-3 to determine reduction in HEC
- 4.3 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to assess efficacy of HEC strategies and combinations
- 4.4 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to quantify increased use of barriers over time
- 4.5 Field base data collection on apiary (monthly with overall annual assessments each year since installation (Year 1 – 3)
- 4.6 Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) to quantify the use of income generating barriers strategies
- 5.1 Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) focussed on value-based statements involving biodiversity and coexistence values.
- 5.2 Publishing of a scientific paper in a peer-reviewed scientific journal, as well as publishing popular articles through major news outlets in Year 3 and beyond
- 5.3 Organising meetings and setting up MOAs with strategic organisations in Year 3
- 5.4 Strategic fundraising endeavours for additional sources of income starting in Year 2 but secured by Year 3
- 5.5 Workshops to discuss the formulation of policies and legislation (Year 3) to enable the development of Biosphere Reserves and ensure governmental gazettelement (post Year 3)

## Section 11 - Budget and Funding

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### Q24. Budget

**Please complete the appropriate Excel spreadsheet, which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. Note that all Darwin Main should be using the over £100,000 template. Please refer to the [Finance Guidance](#) for more information.**





- [Budget form for projects over £100k](#)

**Please ensure you include any co-financing figures in the Budget spreadsheet to clarify the full budget required to deliver this project.**

**N.B.: Please state all costs by financial year (1 April to 31 March) and in GBP. The Darwin Initiative cannot agree any increase in grants once awarded.**

**Please upload the Lead Partner's accounts at the certification page at the end of the application form.**

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## Q25. Funding

Q25a. Is this a new initiative or does it build on existing work (delivered by anyone and funded through any source)?

- Development of existing work

**Please provide details:**

The project places the reactionary HEC mitigation of the first RRU deployed in Mozambique, in context. It thus represents an extension of this novel initiative and an upscaling thereof to landscape level with the deployment of an additional unit. Spatial-temporal analyses of the tracking data allows for more effective mitigation by the RRU as crop-raiding hotspots are identified along the length of the corridor and viewed holistically. Encouraging people to proactively protect their crops in the longer term while diversifying their income, ensures the sustainability of the project outcomes as people learn to appreciate living in harmony with nature so long as it does not put them out of pocket. The agricultural extension of the corridor project in terms of apiaries and the cultivation of unpalatable crops with a market value, represents an EA extension of a proof of concept practised in SA with the Black Mamba APU to not only gain experience in permaculture practices but also an understanding of the market value of such crops while ensuring gender equality. In all aspects of these projects, EA has spearheaded the funding of these initiative through the Jamma Foundation, ECF, Ruffords Foundation, Tanglewood Foundation and the Lionshare.

Q25b. Are you aware of any current or future plans for similar work to the proposed project?

- Yes

**Please give details explaining similarities and differences, and explaining how your work will be additional and what attempts have been/will be made to co-operate with and learn lessons from such work for mutual benefits.**

While several organisations strive to reduce HEC across Africa, few have approached the challenge as holistically as this project. Aspects of our approach may be replicated by other organisations (such as the collaring additional corridor moving animals by the Peace Parks Foundation). This serves the purpose of increasing the connectivity across larger areas and calls for increased collaboration while a wealth of EA's historical tracking data allows for the planning of proposed corridors. With the RRUs we have addressed

the immediate safety concerns of people allowing for increased receptiveness to adopting longer and more sustainable mitigation strategies. We have conducted novel experimental research in SA to determine which plants with an essential oil value are avoided by elephants (chili, Cape gold, Cape snowbush, rosemary, borage, bulbine, fever tea, hibiscus and worm wood<sup>26</sup>) to empower communities to diversify their income by propagating income generating soft barriers to protect their food crops. We thus uniquely propose a living landscape consisting of a network of corridors flagged by collared elephants embedded within a Biosphere Reserve in southern Mozambique where elephants and people's assets are protected and enhanced by additional income streams that will also be planned beyond this project (woodlots etc.<sup>27</sup>).

## Q26. Capital items

**If you plan to purchase capital items with Darwin funding, please indicate what you anticipate will happen to the items following project end. If you are requesting more than 10% capital costs, please provide your justification here.**

4% of the total budget consists of capital costs for:

- 2 motorbikes in Year 1 & 3 each for the RRUs. The 2nd will only be reliable for one additional year due to poor road conditions.
- Material to construct barriers as part of the demo-projects with little use beyond the project.
- A watchtower (Year 3) with the other two watchtowers constructed in previous years and financed by the ECF. They will have limited use for other means beyond the life of the project.

## Q27. Value for Money

**Please demonstrate why your project is good value for money in terms of impact and cost-effectiveness of each pound spend (economy, efficiency, effectiveness and equity). Please make sure you read the guidance documents, before answering this question.**

An effort was made to keep financed items as cost effective and realistic as possible. Wherever possible match funding has been offered for various line items and although match funding is considerably less in Year 3, we believe that effective management of the project and finances will afford us additional options for matched funding closer to the time. When it comes to the deployment of tracking devices quality and reliable items are proposed as extensive experimentation over years has taught us not to waste money with cheaper items that cannot be retrieved. In-house expertise in terms of veterinary services has reduced these costs considerably. Limited helicopter availability reduces the option of choice, so rates charged are beyond our control. Travel and consumable items have been based on historical experience while traveling in Mozambique. Staff costs for EA have largely been cover by other grants. Value for money is achieved as administration costs within the host country is largely accounted for by existing institutional resources and staff.

## Section 12 - Safeguarding and Ethics

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### Q28. Safeguarding

**Projects funded through the Darwin Initiative must fully protect vulnerable people all of the time, wherever they work. In order to provide assurance of this, projects are required to have appropriate safeguarding policies in place.**

Please confirm the Lead Partner has the following policies in place and that these can be available on request:

Please upload the lead partner's Safeguarding Policy as a PDF on the certification page.

<b>We have a safeguarding policy, which includes a statement of our commitment to safeguarding and a zero tolerance statement on bullying, harassment and sexual exploitation and abuse</b>	Checked
<b>We have attached a copy of our safeguarding policy to this application (file upload on certification page)</b>	Checked
<b>We keep a detailed register of safeguarding issues raised and how they were dealt with</b>	Checked
<b>We have clear investigation and disciplinary procedures to use when allegations and complaints are made, and have clear processes in place for when a disclosure is made</b>	Checked
<b>We share our safeguarding policy with all partners</b>	Checked
<b>We have a whistle-blowing policy which protects whistle blowers from reprisals and includes clear processes for dealing with concerns raised</b>	Checked
<b>We have a Code of Conduct for staff and volunteers that sets out clear expectations of behaviours - inside and outside the work place - and make clear what will happen in the event of non-compliance or breach of these standards</b>	Checked

Please outline how you will implement and strengthen your safeguarding policies in practice and ensure that all partners apply the same standards as the Lead Partner. If any of the responses are “no”, please indicate how it is being addressed.

Our policies are clear and agreed by all MWA's workers. They are comprehensive, fair, and robust documents that are respected and followed. We base our actions on ethical behavior, knowledge and honesty. Dr. Carlos Lopes Pereira, as the Strategic Director, sets a very high standard in the workplace. We would implement our safeguarding policies if any grievances were to arise and then work out a disciplinary action to rectify the situation. We would request from our partners, their safeguarding policies to ensure that they align with the same or similar standards that we are proud to maintain.

## Q29. Ethics

Outline your approach to meeting the key principles of good ethical practice, as outlined in the guidance.

Animal handling and immobilisation are subject to the ethical clearance from the University of the Witwatersrand as well according to the guidelines for best practices as formulated by the KNP to which the MWA also adheres. All veterinarians within MWA are fully qualified and have extensive experience with elephant immobilisations. The project will take place in collaboration with the communities of Namaacha Valley with which the MWA already has a strong relationship as the RRU members have been sourced from this community. Interactions with community members are subject to prior permissions from the district authorities and have already been obtained. Participation in social surveys will take place based on

prior informed consent, thereby respecting the welfare and privacy of any participants. Interviews will take place in the local language and will conform to the standards set by the University of the Witwatersrand and the University of Johannesburg. Participants will be informed about the outcomes of the surveys. The health and safety of participating field staff will be considered and subject to health and safety insurance. The procedure risk assessments of MWA and EA will be followed prior to participation.

## Section 13 - FCDO Notifications

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### Q30. FCDO Notifications

Please state whether there are sensitivities that the Foreign Commonwealth and Development Office will need to be aware of should they want to publicise the project’s success in the Darwin Initiative in any country.

No

Please indicate whether you have contacted FCDO Embassy or High Commission to discuss the project and attach details of any advice you have received from them.

Yes (no written advice)

## Section 14 - Project Staff

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### Q31. Project staff

Please identify the core staff (identified in the budget), their role and what % of their time they will be working on the project.

Please provide 1-page CVs or job description, further information on who is considered core staff can be found in the [Finance Guidance](#).

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Antonio Alverca	<b>Project Leader</b>	60	Checked
Sandra Moura	Administrative Director	50	Checked
Sara Namicoche	Administrative Assistant	30	Checked
Michelle Henley	Co-Project Leader	55	Checked

Do you require more fields?


Yes





Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Anka Bedetti	Co-Project Leader	50	Checked
GIS technician	To be confirmed	70	Unchecked
Katie Thompson	Co-Project Leader	80	Checked
Marichelle Mostert	Consulting Accountant	100	Checked
<i>No Response</i>	<i>No Response</i>	0	Unchecked
<i>No Response</i>	<i>No Response</i>	0	Unchecked
<i>No Response</i>	<i>No Response</i>	0	Unchecked
<i>No Response</i>	<i>No Response</i>	0	Unchecked


**Please provide 1 page CVs (or job description if yet to be recruited) for the project staff listed above as a combined PDF.**

**Ensure the file is named clearly, consistent with the named individual and role above.**

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**Have you attached all project staff CVs?**

No

**If you cannot provide a CV or job description, please explain why not.**

We have not yet found a suitable candidate that can assist with the spatial analysis, map making and predictive modelling that would be required to work toward solution orientated HEC mitigation. The appointee would also require the necessary expertise to be able to train Mozambique nationals to conduct basic spatial-temporal analyses

## Section 15 - Project Partners

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### Q32. Project Partners

**Please list all the Project Partners (including the Lead Partner - i.e. the partner who will administer the grant and coordinate the delivery of the project), clearly setting out their roles and responsibilities in the project including the extent of their engagement so far and planned.**

**This section should demonstrate the capability and capacity of the Project Partners to successfully**

deliver the project. Please provide Letters of Support for all project partners or explain why this has not been included.

The partners listed here should correspond to the Delivery Chain Risk Map (within the Risk Register template) which you will be asked to submit if your project is recommended for funding.

<b>Lead partner name:</b>	Mozambique Wildlife Alliance – MWA
<b>Website address:</b>	<a href="https://www.mwa.co.mz/">https://www.mwa.co.mz/</a>
<b>Details (including roles and responsibilities and capacity to engage with the project):</b>	<p>The MWA is mandated by ANAC (state entity) to operate and assist on their behalf on HEC related topics. All MWA’s activities are governed by a 10-year MOU signed with ANAC. MWA has an extensive depth of wildlife veterinarians on their team together with a network of international experts that provide guidance, support and advice to MWA’s work. MWA will coordinate the fieldwork, and serve as the interface between the government of Mozambique and the other project partners. Under EA’s financial assistance and shared expertise, the two NGOs represent the implementing agents.</p> <p>Roles and Responsibilities: MWA will be the lead partner on the project who will administer the grant and coordinate the delivery and implementation of the project’s outcomes. MWA will organise, coordinate and implement field work and maintain close relationships with the communities in the targeted areas via the relationship-strengthening activities of the RRUs. Under the guidance of the Project Leader, the RRU will continue to train, organise workshops and disseminate information to build capacity within Mozambique.</p> <p>Capabilities: MWA has significant experience working locally due to the RRUs establishment and operations throughout southern Mozambique. Together with EA, MWA will manage and disburse and report on the majority of the</p>
<b>Allocated budget (proportion or value):</b>	£ [REDACTED]
<b>Represented on the Project Board</b>	<input checked="" type="radio"/> Yes
<b>Have you included a Letter of Support from this organisation?</b>	<input checked="" type="radio"/> Yes
<b>Have you provided a cover letter to address your Stage 1 feedback?</b>	<input checked="" type="radio"/> Yes

**Do you have partners involved in the Project?**

Yes

**1. Partner Name:** Elephants Alive

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**Website address:** <https://elephantsalive.org/>

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**Details (including roles and responsibilities and capacity to engage with the project):**

EA represents a long-standing NGO that branched off from STE in earlier years, and which has extensive experience in researching transboundary elephants in southern Africa. Having collared close to 250 elephants since 1998, EA is experienced at finding science-based solutions and funds to the challenges elephants face today.

Roles and Responsibilities: EA has conceptualised the vision and designed the research work, thereby contributing extensive scientific and practical experience to the project since the first elephant was collared outside of PAs in 2018. EA staff will analyse and delineate corridors over time, analyse baseline data to identify conflict hotspots and develop HEC probability maps, and will be involved in monitoring and evaluating process. As science ambassadors, EA will also publish the results in peer reviewed scientific journals together with the project partners. EA has contributed considerable donor funds and donor support to the project and will continue doing so. EA serves as the lead applicant to the project.

Capabilities: EA has extensive experience in project design and execution, networking with project partners, leveraging resources to support projects and scientific publication of the results. EA's contributions have helped to build capacity within Mozambique by conceptualising and financially backing the first RRU.

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**Allocated budget:** £ [REDACTED]

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**Represented on the Project Board**  Yes

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**Have you included a Letter of Support from this organisation?**  Yes

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**2. Partner Name:** Elephant Crises Foundation - HEC

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**Website address:** <https://www.elephantcrisfund.org/>

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**Details (including roles and responsibilities and capacity to engage with the project):**

The ECF team has unrivalled continent-wide knowledge of the unique threats to African elephants. One of the aims of the ECF is to promote human-elephant coexistence with two areas of focus involving land and corridor protection and the development of grassroots deterrent strategies to combat HEC. These objectives tie in closely with those of this project.

Roles and Responsibilities: Dr. Lucy King, who oversees the HEC aspects of the ECF has contributed significant scientific and practical experience to the project and will continue to do so. As one of the major funders of the project, since its inception, ECF's matched funding has been important in leveraging additional funds. In addition, Lucy's vast experience in using beehives as well as elephant unpalatable crops as barriers for food crops in drought prone regions of Africa, will provide the necessary advise and expertise on the use of this income-generating barrier in the corridor.

Capabilities: ECF's staff has significant experience in project- and financial management, risk assessment and the planning of mitigation strategies.

Furthermore, they are strongly grounded in science which also adds capability to the Project team.

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**Allocated budget:** £ [REDACTED]

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**Represented on the Project Board**  Yes

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**Have you included a Letter of Support from this organisation?**  Yes

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**3. Partner Name:** For Elephants

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**Website address:** <https://www.4elephants.org/>

**Details (including roles and responsibilities and capacity to engage with the project):**

For Elephants is a nonprofit organization that conducts elephant research and provides expertise and resources to elephant care professionals, researchers, and elephant enthusiasts. The Directors of Elephants Alive and For Elephants have a long standing working relationship which will serve the elephants in the project very well.

Roles and Responsibilities: For Elephants will assist in profiling faecal stress and health indices of corridor-moving elephants which will help to evaluate the success of the corridor.

Capabilities: Dr. Kari Morfeld and her graduate students has extensive experience as an expert endocrinologist in profiling the reproductive status of elephants, their general health and stress via faecal sample analyses. The application of this capability will function as an important indicator to the project.

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**Allocated budget:** £ [REDACTED]

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**Represented on the Project Board**  No

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Have you included a Letter of Support from this organisation?  Yes

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**4. Partner Name:** Sensing Clues

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**Website address:** <https://sensingclues.org/>

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**Details (including roles and responsibilities and capacity to engage with the project):**

Sensing Clues has projects throughout the world related to the development of advanced systems involving the sustainable management of forests (Malaysia), land-use planning (Ethiopia), and since 2017 with Sensing Clues and 15 Solution Partners, on the development and servicing of a platform to facilitate the easy collection, analysis and visualisation of data related to Protected Area Management. The platform is used by field partners across 4 continents in 18 countries to monitor biodiversity, mitigate human-wildlife conflicts, and protect PAs against illegal activities.

**Roles and Responsibilities:** Sensing Clues will help find ways to development models that will predict in real-time the actual locations of elephants and the likelihood of crop-raiding which will be important to the developments of Human-Elephant Conflicts (HEC) mitigation strategies.

**Capabilities:** The team consists of around 40 dedicated and highly motivated nature-passionate experts that are under the leadership of Dr. Jan Schakel. Most of them are volunteers with backgrounds varying from ecology to (green) law enforcement, from data science to sensor technology and from systems integration to training and supporting. Collectively Sensing Clues offers a tremendous increase in capabilities and research expertise when they chose to partner with organisations.

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**Allocated budget:** £ [REDACTED]

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**Represented on the Project Board**  No

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Have you included a Letter of Support from this organisation?  Yes

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**5. Partner Name:** PAMS Foundation

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**Website address:** <https://pamsfoundation.org/>

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**Details (including roles and responsibilities and capacity to engage with the project):**

Founded in Tanzania in 2009 by Krissie Clark, Dr. Ally Namangaya and Wayne Lotter, PAMS Foundation is a conservation non-profit with a mission to empower the people who protect wildlife and wild places. Through trusted partnerships with communities, local and national government, key stakeholders and champions in the various landscapes, PAMS uses intelligent approaches to seek flexible solutions that address the most pressing challenges faced by wildlife and people living in natural areas.

**Roles and Responsibilities:** PAMS Foundation will exchange and transfer skills regarding the use of Chili fences as methodology to mitigate Human Elephant Conflict and promote Human Elephant Coexistence.

**Capabilities:** PAMS Foundation together with Elephants Alive has experience in working together by co-funding and managing a project looking at the conservation status and protection of both lions and elephants in LNP in Mozambique. PAMS supports local farmers to erect chili fences to dissuade elephants from entering subsistence famers and will bring their expertise to the table in terms of using this non-income generating defence technique having erected more than 450 km of chili fences in-country.

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**Allocated budget:** £ ██████████

---

**Represented on the Project Board**  No

---

**Have you included a Letter of Support from this organisation?**  Yes

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---

**6. Partner Name:** *No Response*

---

**Website address:** *No Response*

---

Details  
(including roles  
and  
responsibilities and capacity to  
engage with the  
project):

*No Response*

---

**Allocated budget:** £0.00

---

**Represented on the Project Board**  Yes  
 No

---

Have you included a Letter of Support from this organisation?  Yes  
 No

---





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**If you require more space to enter details regarding Partners involved in the project, please use the text field below.**





*No Response*

**Please provide a cover letter responding to feedback received at Stage 1 if applicable and a combined PDF of all letters of support.**

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## Section 16 - Lead Partner Capability and Capacity

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### Q33. Lead Partner Capability and Capacity

**Has your organisation been awarded Darwin Initiative, Darwin Plus or Illegal Wildlife Trade Challenge Fund funding before (for the purposes of this question, being a partner does not count)?**

No

**If no, please provide the below information on the lead partner.**

**What year was your organisation established/ incorporated/ registered?** 01 January 2021

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**What is the legal status of your organisation?**  NGO

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**How is your organisation currently funded?** The Mozambique Wildlife Alliance is currently funded by strategic partners/funds that focus on different types of projects with common goals and outcomes for conservation. We have specific funding for different species (giraffe, lion, rhino, elephant, pangolin). Examples of some of our funders are OAK, WCP, Lion Recovery Fund. Elephants Alive has been instrumental in helping us get Elephant Crisis Funds and JAMMA Foundation. They have also self-funded and collared numerous elephants within Mozambique which has helped us understand and manage elephants. All activities, core and specific costs are funded by these partners.

---

**Describe briefly the aims, activities and achievements of your organisation. Large organisations please note that this should describe your unit or department.**

**Aims** To create a platform for collaborative veterinary and conservation actions in Mozambique that will connect and support partners, promote coexistence with communities and increase conservation impact for people, wildlife, and the habitat they share across Mozambique.

---

**Activities**

1. Wildlife veterinary interventions
2. Community support for mitigation of HWC outside protected areas
3. Advisory support for conservation actions
4. Information and analysis support

---

**Achievements** Dr Carlos Lopes Pereira, president of MWA, sets the example of the calibre of work we deliver. The MoU between ANAC and MWA allows us to operate and liaise at governmental level. The metrics of our work output through the empowerment of young Mozambicans, is an achievement.

---

**Provide details of 3 contracts/projects held by the lead partner that demonstrate your credibility as an organisation and provide track record relevant to the project proposed.**

**These contracts/awards should have been held in the last 5 years and be of a similar size to the grant requested in your Darwin application.**

**Contract/Project 1 Title** Lion Recovery Fund

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<b>Contract Value/Project budget (include currency)</b>	██████ USD
<b>Duration (e.g. 2 years 3 months)</b>	6 months
<b>Role of organisation in project</b>	Grantee/implementor
<b>Brief summary of the aims, objectives and outcomes of the project</b>	<p>Aims: Lion Conservation in Mozambique</p> <p>Objectives: reduce HLC in the action areas   increase lion population reinforcement with the translocated lions   train a Mozambican wildlife veterinarian</p> <p>Outcomes: vet interventions in 33 individual lions across Mozambique   capture and translocation of 9 lions (5 males and 4 females)   placement of 21 satellite/VHF collars for monitoring   3x lions immobilized and successfully treated for gin trap injuries   Niassa dog vaccination (300 domestic dogs vaccinated against rabies and canine distemper)</p>
<b>Client/independent reference contact details (Name, e-mail)</b>	Peter Lindsey ████████████████████

<b>Contract/Project 2 Title</b>	Elephant Crisis Fund: Elephant Coexistence Corridors in Southern Mozambique
<b>Contract Value/Project budget (include currency)</b>	██████ USD
<b>Duration (e.g. 2 years, 3 months)</b>	1 year
<b>Role of organisation in project</b>	Field project manager and veterinarian

**Brief summary of the aims, objectives and outcomes of the project**

Aims: promoting coexistence between the communities affected by HEC  
Objectives: Establishment and activities of a RRU to respond to HEC situations with near-immediate effect due to a presence on the ground | Educational role | Collect and carefully document data | Disrupting elephant crop-raiding  
Outcomes: Improved communication between communities and the RRU regarding elephants' location(s) | Effective HEC mitigation responses | Empowering the community to protect their own crops in targeted areas | Applying limited resources both in terms of equipment and manpower in a more cost-effective manner | Facilitating elephant behavioural modification | Continued data collection for crop-raiding predictive models

**Client/independent reference contact details (Name, e-mail)**

Lucy King  
lucy@savetheelephants.org

**Contract/Project 3 Title**

OAK Foundation: Mozambique Wildlife Alliance Institutional Capacity Building

**Contract Value/Project budget (include currency)**

██████████ USD

**Duration (e.g. 2 years, 3 months)**

3 years

**Role of organisation in project**

Grantee

**Brief summary of the aims, objectives and outcomes of the project**

Aims: Mozambique's wildlife conservation becomes a flagship for the country's development, resulting in the well-being of its people both through direct benefits (employment, food security) and indirect long-term environmental resilience.  
Objectives: Support ANAC in critical areas of intervention, identified by the government and its partners. Support with technical and financial capacity the development of world-class wildlife veterinary services.  
HWC mitigation capability in hotspot- and corridor areas.  
Illegal wildlife trade disruption based on information-driven operations.  
Outcomes: 1. Wildlife veterinary operations in support of Mozambique's wildlife 2.HWC mitigation actions outside of PAs. 3.Advisory support for conservation actions. 4.Illegal wildlife trade disruption

**Client/independent reference contact details (Name, e-mail)**

Alexandra Kennaugh  
████████████████████

**Have you provided the requested signed audited/independently examined accounts?**

If yes, please upload these on the certification page. Note that this is not required from Government Agencies.

Yes

## Section 17 - Certification

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### Certification

**On behalf of the**

Company

**of**

Elephants Alive

**I apply for a grant of**





£449,858.00

**I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.**

(This form should be signed by an individual authorised by the applicant institution to submit applications and sign contracts on their behalf.)





- I have enclosed CVs for project key project personnel, cover letter, letters of support, a budget, logframe, Safeguarding Policy and project implementation timetable (uploaded at appropriate points in application)
- Our last two sets of signed audited/independently verified accounts and annual report are also enclosed.

Checked





<b>Name</b>	MICHELLE HENLEY
<b>Position in the organisation</b>	CEO of ELEPAHNTS ALIVE
<b>Signature (please upload e-signature)</b>	 <a href="#">Certification project applicant signed</a>  14/12/2022  12:55:57  pdf 130.17 KB
<b>Date</b>	11 December 2022

**Please attach the requested signed audited/independently examined accounts.**

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**Please upload the Lead Partner's Safeguarding Policy as a PDF**

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## Section 18 - Submission Checklist

### Checklist for submission

	Check
<b>I have read the Guidance, including the "Darwin Initiative Guidance", "Monitoring Evaluation and Learning Guidance", "Risk Guidance" and "Financial Guidance".</b>	Checked
<b>I have read, and can meet, the current Terms and Conditions for this fund.</b>	Checked
<b>I have provided actual start and end dates for the project.</b>	Checked
<b>I have provided my budget based on UK government financial years i.e. 1 April – 31 March and in GBP.</b>	Checked
<b>I have checked that our budget is complete, correctly adds up and I have included the correct final total at the start of the application.</b>	Checked
<b>The application been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).</b>	Checked
<b>I have attached the below documents to my application</b> <ul style="list-style-type: none"><li>• my completed logframe as a PDF using the template provided</li></ul>	Checked
<ul style="list-style-type: none"><li>• my budget (which meets the requirements above)</li></ul>	Checked
<ul style="list-style-type: none"><li>• my completed implementation timetable as a PDF using the template provided</li></ul>	Checked
<b>I have included a 1 page CV or job description for all the Project Staff identified at Question 31, including the Project Leader, or provided an explanation of why not.</b>	Checked
<b>I have included a letter of support from the Lead Partner and partner(s) identified at Question 32, or an explanation of why not.</b>	Checked
<b>I have included a cover letter from the Lead Partner, outlining how any feedback received at Stage 1 has been addressed where relevant.</b>	Checked

<b>I have included a copy of the Lead Partner’s safeguarding policy, which covers the criteria listed in Question 28.</b>	Checked
<b>I have been in contact with the FCDO in the project country/ies and have included any evidence of this. If not, I have provided an explanation of why not.</b>	Checked
<b>I have included a signed copy of the last 2 annual report and accounts for the Lead Partner, or provided an explanation if not.</b>	Checked
<b>I have checked the Darwin Initiative website immediately prior to submission to ensure there are no late updates.</b>	Checked
<b>I have read and understood the Privacy Notice on the Darwin Initiative website.</b>	Checked

**We would like to keep in touch!**

**Please check this box if you would be happy for the lead applicant (Flexi-Grant Account Holder) and project leader (if different) to be added to our mailing list. Through our mailing list we share updates on upcoming and current application rounds under the Darwin Initiative and our sister grant scheme, the IWT Challenge Fund. We also provide occasional updates on other UK Government activities related to biodiversity conservation and share our quarterly project newsletter. You are free to unsubscribe at any time.**

Checked

**Data protection and use of personal data**

Information supplied in the application form, including personal data, will be used by Defra as set out in the **Privacy Notice**, available from the [Forms and Guidance Portal](#).

This **Privacy Notice must be provided to all individuals** whose personal data is supplied in the application form. Some information may be used when publicising the Darwin Initiative including project details (usually title, lead partner, project leader, location, and total grant value).

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	Activity	No. of months	Year 1 (23/24)				Year 2 (24/25)				Year 3 (25/26)			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	Understand the motivation behind elephant movements from core conservation areas into peripheral PAs, as well as their crop-raiding strategies													
1.1	Collar 15, 10 and 5 elephants in strategic locations in compliance with animal ethics from Year 1-3, respectively (cooler months for elephant safety)	18	X	X			X	X			X	X		
1.2	Spatial analysis of elephant movements through remote sensing/GIS, and field-based data collection in Year 1-3	36	X	X	X	X	X	X	X	X	X	X	X	X
1.3	Spatial analysis of natural resources (plant spp. or vegetation communities) through remote sensing/GIS (Year 1), ground truthing by Year 3 to determine movement drivers	24	X	X	X		X	X	X		X	X	X	
1.4	Link laboratory analysis (glucocorticoids) with movement data for between year comparison (Year 1-3) and compare with baseline (KNP complex) in Year 3	24	X	X	X		X	X	X		X	X	X	
Output 2	Ensuring human- and elephant safety with RRUs and protecting people's assets with non-income generating barriers													
2.1	Deploy RRUs to mitigate HEC Year 1-3	36	X	X	X	X	X	X	X	X	X	X	X	X
2.2	RRU hosts educational workshops in Year 1	18	X		X		X		X		X		X	
2.3	Comparative data analysis of HEC where RRU operateS in relation to other areas in Southern Mozambique within each year (Year 1-3)	6				X				X				X

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	Activity	No. of months	Year 1 (23/24)				Year 2 (24/25)				Year 3 (25/26)			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.4	Establish 4 types of non-income generating barriers as demonstration plots in the Namaacha Valley (Year 1)	3	X											
Output 3	Training and capacity building in sustainable and gender-equitable mitigation barriers with watch towers as discussion sub-centres, whilst understanding the socio-economic needs of people via social surveys													
3.1	Construction of watch towers for hosting of educational orientated workshops setup and record keeping of attendees in Year 1-3 with one tower a year	9	X				X				X			
3.2	Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on gender-based analyses	4	X								X			
3.3	Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on resource use analyses	4	X								X			
Output 4	Establishment and development of income-generating barriers of two types i.e. beehive fences and elephant unpalatable crop with a market value													
4.1	Replication and testing of 2 income generating barrier types (beehive fences Year 1, Plant based agriculture Year 2-3) at 2-3 farms (20-25 study sites)	13				X			X	X			X	X
4.2	Spatial analysis through remote sensing/GIS, and field-based data collection of elephant movements in Year 1-3 to determine reduction in HEC	4	X								X			

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	Activity	No. of months	Year 1 (23/24)				Year 2 (24/25)				Year 3 (25/26)				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
4.3	Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to assess efficacy of HEC strategies and combinations	4	X									X			
4.4	Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to quantify increased use of barriers over time	4	X									X			
4.5	Field base data collection on apiary (monthly with overall annual assessments each year since installation (Year 1 – 3)	36	X	X	X	X	X	X	X	X	X	X	X	X	X
4.6	Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) to quantify the use of income generating barriers strategies	4	X									X			
Output 5	Increased knowledge landscape connectivity and adoption of coexistence values by communities in Namaacha valley with replication of models along length of corridor resulting in the establishment of biosphere reserves and reforestation schemes														
5.1	Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) focussed on value-based statements involving biodiversity and coexistence values.	4	X									X			
5.2	Publishing of a scientific paper in a peer-reviewed scientific journal, as well as publishing popular articles through major news outlets in Year 3 and beyond	10				X				X			X	X	



Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	Activity	No. of months	Year 1 (23/24)				Year 2 (24/25)				Year 3 (25/26)			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
5.3	Organising meetings and setting up MOAs with strategic organisations in Year 3	6											X	X
5.4	Strategic fundraising endeavours for additional sources of income starting in Year 2 but secured by Year 3	12							X	X			X	X
5.5	Workshops to discuss the formulation of policies and legislation (Year 3) to enable the development of Biosphere Reserves and ensure governmental gazettelement (post Year 3)	3												X

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

Project Summary	SMART Indicators	Means of Verification	Important Assumptions
<p><b>Impact:</b>  <b>Ensuring the long-term preservation of one of southern Africa’s largest transfrontier elephant populations through the establishment of a community-owned and income-generating wildlife corridor.</b></p>			
<p><b>Outcome:</b></p> <p>Elephant crop losses significantly reduced, perceptions towards elephants improved and retaliatory killings reduced. Sustainable HEC mitigation strategies, facilitating financial resilience, are adopted by communities living alongside a recognized wildlife corridor. Established models are replicated and upscaled to landscape level leading to land reform and biosphere reserves (post-project period)</p>	<p>0.1 50% reduction in crop losses from elephants by Year 3 in the project area.</p> <p>0.2 Households in the project site record a higher average income per person per month (baseline national average \$142)<sup>29</sup>.</p> <p>0.3 100% decrease in elephant mortality from illegal killings or Problem Animal Control in the project area by the end of Year 2 after a baseline of 7 human fatalities for the whole of Mozambique.</p> <p>0.4 50% decrease in grievances about HEC lodged at ANAC/ district authorities.</p> <p>0.5 50% increase in food production in project area by end of Year 3 relative to Year 1</p> <p>0.6 30% increase in the number of elephants utilising the wildlife corridor by Year 3, including herds (signalling increased sense of safety amongst cows with a baseline of zero).</p>	<p>0.1 Monitoring of elephant crop damage and reports submitted by the RRUs and ANAC wildlife authority. Recorded short-term mitigation strategies applied by the RRU will be analysed with collar movement data to determine efficacy of methods applied.</p> <p>0.2 Pre- and post-project surveys by a social scientist for income from households registered with the project.</p> <p>0.3 District Government, MWA and wildlife authority records.</p> <p>0.4 District Government, MWA and wildlife authority records.</p> <p>0.5 Pre- and post-project surveys by a social scientist.</p> <p>0.6 Collar movement data.</p> <p>0.7 Pre- and post-project surveys by a social scientist.</p> <p>0.8 Pre- and post-project surveys by a social scientist.</p>	<ul style="list-style-type: none"> <li>- All mitigation methods are effective and applied and maintained correctly. Elephants do not become habituated to methods.</li> <li>- Viable market for income-generating crops/products, particularly the essential oil market, local and international.</li> <li>- HEC incidents are reported accurately.</li> <li>- Elephant collars remain active for the study period without malfunctioning or dropping off.</li> <li>- Crop protection efforts, upskilling, training opportunities and near immediate support from the RRUs are effective in fostering tolerance towards elephants.</li> <li>- Increased tolerance towards elephants facilitates the approval of establishing a wildlife corridor amongst the communities &amp; within government.</li> </ul>

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	<p>0.7 A 10% increase in upskilled community members who implement new income- and non-income HEC mitigation strategies by the end of Year 3 from a baseline of zero.</p> <p>0.8 New agricultural developments, like communal farm production of unpalatable crops to increase productivity, follow conservation agriculture techniques.</p> <p>0.9 An increased understanding of the value of biodiversity and its importance for sustainable socio-economic development.</p> <p>0.10 Recognition by Mozambique's Planning and Infrastructure District Service of biodiversity requirements during land-use planning.</p>	<p>0.9 Pre- and post-project surveys.</p> <p>0.10 Legal documentation.</p>	<ul style="list-style-type: none"> <li>- Other motives for elephant killing (i.e., poaching) do not override tolerance efforts.</li> <li>- Political interference does not negatively affect communities' support for corridor conservation.</li> <li>- Collared and non-collared elephants, including herds, utilise the established corridors.</li> </ul>
<p><b>Outputs:</b>  <b>1.</b> Further understanding of the motivation behind elephant movements from core conservation areas into peripheral PAs, as well as their crop-raiding strategies (Phase 1).</p>	<p>1.1 Number of collared elephants moving through the corridor is to be increased from 20 to 35 by the end of Year 3 due to 30 additional collars deployed.</p> <p>1.2 Elephant movement through the corridor and associated crop raiding hotspots will be updated each year until the end of the project as movement data collection increases. Each month</p>	<p>1.1 Increasing the number of study animals allows for better monitoring of elephant movements and continuous significant build-up of the movement database.</p> <p>1.2 Reports from RRUs (MWA) combined with remote sensing data and spatial analytic tools of elephant movements will allow</p>	<ul style="list-style-type: none"> <li>- Elephants of a particular sex and age group will be found in the optimal location for collaring and research purposes.</li> <li>- The collars remain active for the study period without malfunctioning, individuals dying or illegally killed.</li> <li>- Partner organisations remain committed and able to support</li> </ul>

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	<p>will serve as a baseline for the next.</p> <p>1.3 Key natural resources (i.e., key plant species or vegetation communities) driving elephant movements through the corridor are established through remote sensing and ground-truthing by end of Year 3</p> <p>1.4 Elephant stress hormones within the corridor are established and compared to baseline levels within the Greater Kruger National Park by end of Year 3</p>	<p>them to target hotspots for ground-truthing and social surveys conducted by a social scientist.</p> <p>1.3 Database of key plant species and/or vegetation communities is identified through remote sensing, as well as on-site vegetation surveys for ground truthing.</p> <p>1.4 Collection and analysis of faecal samples of corridor moving elephants by <i>For Elephants</i> (Dr. Kari Morfeld), and comparison to baseline levels established by Dr. Morfeld in the Greater Kruger National Park.</p>	<p>collaring operations and data analyses.</p>
<p><b>2. Ensuring human and elephant safety with the establishment and deployment of an additional Rapid Response Unit (RRU) and ensuring the protection of human assets through the establishment of non-income generating barriers (Phase 2).</b></p>	<p>2.1 Based on a pre-project baseline of 76% crop raiding prevention success rate by the RRUs in operation, an additional RRU will increase the success rate to 80% by Year 1 as it would allow to help cover more ground in the corridor (area of 36 707 km<sup>2</sup>, six regions, with 138,466 inhabitants) over the same period of time.</p> <p>2.2 20 educational workshops, hosting 250 participants in total per year, are facilitated in the corridor by the RRU in Year 1</p>	<p>2.1 RRU reports and MWA-ANAC human-wildlife conflict data collection from site representatives of District Services of Economic Activities (SDAE) in combination with elephant movement data analysis (trajectories and speed) will allow us to measure each RRU's success spatially and temporally on a monthly basis.</p> <p>2.2 Attendance registers collected on the number of participants for each workshop. Voluntary membership system is</p>	<ul style="list-style-type: none"> <li>- Additional funding is acquired to equip another RRU to ensure all impacted communities feel supported and integrated into the RRU deployment plans.</li> <li>- An additional RRU is able to provide further HEC relief along the corridor.</li> <li>- Communication channels for reporting HEC remain operational and available throughout the corridor via already-established platforms.</li> </ul>

Project Title: Promoting connectivity to create Living Landscapes in southern Mozambique

	<p>following a baseline of 16 workshops hosting 178 people pre the grant period, focusing on how to increase personal safety around elephants.</p> <p>2.3 Human mortalities and casualties within the corridor aimed to be decreased by 100% by the end of Year 3 in comparison to survey records collected by the Mozambique Wildlife Alliance prior to project commencement according to which 7 people died across the whole of Mozambique due to elephant attacks (year prior to the project).</p> <p>2.4 Demonstration plot programs in the Namaacha Valley (part of the corridor), funded by the Elephant Crisis Fund, are established in Year 1 (4 non income generating barriers)</p>	<p>created to offer continuous support to workshop attendees.</p> <p>2.3 Comparison of historical records collected by the Mozambique Wildlife Alliance, as well post-project surveys by a social scientist.</p> <p>2.4 Questionnaire surveys by a social scientist to establish community attitude towards non-income demonstration plots, with pre-and post-investigations. Social surveys provide quantifiable data on improved livelihoods due to increase crop protection pre- and post investigations.</p>	<ul style="list-style-type: none"> <li>- The RRUs continue to train the District Services of Economic Activities (SDAE) on HEC mitigation strategies to ensure a successful handover of responsibility once long-term mitigation strategies have been implemented.</li> <li>- Each mitigation method is applied and maintained properly</li> </ul>
<p><b>3. Training and capacity building in sustainable and gender-equitable non-income and income-generating HEC mitigation opportunities promoted at watch towers as discussion sub-centres, whilst facilitating the understanding of the socio-economic needs of affected communities and their</b></p>	<p>3.1 The newly established watch towers in the Namaacha Valley (part of the corridor) will facilitate an increase of 50% attendance of households from Namaacha Valley in Year 1 and 80% in Year 3 relative to pre-project baseline of 50.</p>	<p>3.1 Permanently designated and newly constructed watch towers function as conversation hubs and allows for a single point-of-contact, information sharing and brainstorming centre for local inhabitants, and for a continuous attendees' registration database collection.</p>	<ul style="list-style-type: none"> <li>- Keen interest in upskilling opportunities from the community.</li> <li>- Socially acceptable for women to gain new skills and generate their own income.</li> <li>- Continued efficacy of income- and non-income generating HEC mitigation methods.</li> </ul>

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<p>attitudes towards wildlife (Phase 3).</p>	<p>3.2 80% increase in the number of women attending workshops by Year 3 relative to Year 1.</p> <p>3.3 Usage of natural resources within the corridor is decreased by 50% by the end of Year 3, in conjunction with an 80% increase in the number of alternative income crops (elephant unpalatable) being planted in the same time period.</p>	<p>3.2 Records of the number of attendees, pre- and post-project surveys, collected by a social scientist.</p> <p>3.3 Pre- and post project surveys by a social scientist with workshop attendees.</p>	<ul style="list-style-type: none"> <li>- All new agricultural endeavours follow sustainable practices that do not result in increased biodiversity loss or degradation.</li> <li>- Increased financial security will decrease dependency on natural resource use.</li> <li>- Watch towers prove to become a knowledge and discussion sub-centres where communities from outside the corridor visit and learn from.</li> </ul>
<p>4. Establishment and development of income-generating barriers within the corridor (beehive fences and elephant unpalatable crop types with a market value) (Phase 4)</p>	<p>4.1 Demonstration plot programs in the Namaacha Valley (part of the corridor), funded by the Elephant Crisis Fund, are established in Year 1 (1 income generating barrier i.e. beehive fences). Establishment of alternative income generating crops with a market value (chili and essential oils) in Year 2-3</p> <p>4.2 60% average reduction in crop-raiding between the five mitigation strategies by the end of Year 3.</p> <p>4.3 Efficiency of each income and non-income generating mitigation strategy as elephant deterrents to be analysed and quantified by end of Year 3, as</p>	<p>4.1 Questionnaire surveys by a social scientist to establish community attitude towards demonstration plots, with pre-and post-investigations. Social surveys provide quantifiable data on improved livelihoods due to diverse income streams pre-and post investigations.</p> <p>4.2 Pre- and post-project surveys by a social scientist, remote sensing and spatial analysis of collared elephants' movement.</p> <p>4.3 Quantitative data collection and analyses of demonstration plots between Year 2-3 (Project Manager).</p> <p>4.4 Pre- and post-project surveys by Project Manager within the study site.</p>	<ul style="list-style-type: none"> <li>- Each mitigation method is applied and maintained properly.</li> <li>- Following comprehensive beekeeping training and set-up of a monitoring system, the beehive fence will be maintained.</li> <li>- Bee colonies have enough available resources to prevent colonies absconding from hives.</li> <li>- Essential oil crops are not negatively impacted by environmental conditions (i.e., drought).</li> <li>- Communities are open to alternative crop production and willing to apply mitigation strategies to prevent crop-raiding.</li> <li>- An interest from local and international markets for</li> </ul>

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	<p>well as testing the combined effect of mitigation strategies.</p> <p>4.4 65% increase in our outlined income- and non-income generating mitigation methods have been applied within the project study site, relative to pre-project baseline of 0, by Year 3.</p> <p>4.5 30% of beehives on the chosen agricultural farms are occupied by bee colonies by the end of Year 2.</p> <p>4.6 30% of farms within the study site have included essential oils and/or honey-related items as a part of their income generating products by the end of Year 3 with a pre-project base line of zero.</p>	<p>4.5 Beehive occupancy monitoring by Project Manager.</p> <p>4.6 Pre- and post-surveys by a social scientist with the farmers of the selected farms.</p>	<p>produced-essential oils and/or honey-related items. Knowledge and skill transfer from Proof of Concept Projects established in South Africa.</p>
<p><b>5.</b> Increased knowledge and research on human-elephant-coexistence and ecological connectivity at local and national level. Successful models (post-application period) are replicated to upscale solving HEC at landscape level resulting in the establishment of biosphere reserves and reforestation</p>	<p>5.1 Community members living in the corridor (Namaacha Valley), show an increased understanding of the importance (value-based statements) of biodiversity protection and the potential for coexistence in Year 3, relative to pre-project baseline assessed by a social scientist.</p> <p>5.2 Research conducted on quantifying the corridor's connectivity using elephant movement data, combined with remote sensing, will be published</p>	<p>5.1 Pre- and post -project surveys.</p> <p>5.2 Academic journals, magazines, websites, social media pages.</p> <p>5.3 Meeting minutes and signed MOUs between partners.</p> <p>5.4 Sufficient funds awarded from external partners.</p> <p>5.5 Workshops with governmental agencies enable legislative and policy revisions in</p>	<ul style="list-style-type: none"> <li>- Outputs 1-4 lead to greater understanding of ecological connectivity and increased tolerance towards elephants.</li> <li>- Academic interest in project results and the model can be replicated elsewhere.</li> <li>- Funding bodies understand the worth of the project and find value in the replication of the model.</li> <li>- Governmental agencies promote and support biodiversity</li> </ul>

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<p>schemes with functioning as vegetation steppingstones for elephant using the corridors.</p>	<p>and identify sections of the corridor to be prioritised according to their associated connectivity values by Year 1. Furthermore, three popular articles (one per year) with accompanying social media posts, will be published by the end of Year 3 to promote and inform about the corridor.</p> <p>5.3 Relationships established at the watch tower conversation hubs enable 1-2 new community-oriented NGOs to work towards expanding the coexistence model to new sites within the corridor by the end of Year 3.</p> <p>5.4 Matched funding to the value of £ 600 000 is secured by the end of Year 3 to expand the coexistence model to a new community within the corridor.</p> <p>5.5 Landuse legislation is revised to promote biodiversity and move towards the establishment of biosphere reserves</p>	<p>line with biodiversity objectives of greater biosphere reserves.</p>	<p>objectives and are prepared to review current legislation and policies.</p>
<p><b>Activities</b> (each activity is numbered according to the output that it will contribute towards)</p> <p>1.1 Collar 15, 10 and 5 elephants in strategic locations in compliance with animal ethics from Year 1-3, respectively (cooler months for elephant safety)</p> <p>1.2 Spatial analysis of elephant movements through remote sensing/GIS, and field-based data collection in Year 1-3</p> <p>1.3 Spatial analysis of natural resources (plant spp. or vegetation communities) through remote sensing/GIS (Year 1), ground truthing by Year 3 to determine movement drivers</p>			



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1.4 Link laboratory analysis (glucocorticoids) with movement data for between year comparison (Year 1-3) and compare with baseline (KNP complex) in Year 3
2.1 Deploy RRUs to mitigate HEC Year 1-3 2.2 RRU hosts educational workshops in Year 1 2.3 Comparative data analysis of HEC where RRU operate in relation to other areas in Southern Mozambique within each year (Year 1-3) 2.4 Establish 4 types of non-income generating barriers as demonstration plots in the Namaacha Valley (Year 1)
3.1 Construction of watch towers for hosting of educational orientated workshops setup and record keeping of attendees in Year 1-3 with one tower a year 3.2 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on gender-based analyses 3.3 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 with focus on resource use analyses
4.1 Replication and testing of 2 income generating barrier types (beehive fences Year 1, Plant based agriculture Year 2-3) at 2-3 farms (20-25 study sites) 4.2 Spatial analysis through remote sensing/GIS, and field-based data collection of elephant movements in Year 1-3 to determine reduction in HEC 4.3 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to assess efficacy of HEC strategies and combinations 4.4 Community field surveys by social scientist following non-medical human ethics guidelines in Year 1 and 3 to quantify increased use of barriers over time 4.5 Field base data collection on apiary (monthly with overall annual assessments each year since installation (Year 1 – 3) 4.6 Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) to quantify the use of income generating barriers strategies
5.1 Community field surveys by social scientist following non-medical human ethics guidelines (Year 1 and 3) focussed on value-based statements involving biodiversity and coexistence values.

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- 5.2 Publishing of a scientific paper in a peer-reviewed scientific journal, as well as publishing popular articles through major news outlets in Year 3 and beyond
- 5.3 Organising meetings and setting up MOAs with strategic organisations in Year 3
- 5.4 Strategic fundraising endeavours for additional sources of income starting in Year 2 but secured by Year 3
- 5.5 Workshops to discuss the formulation of policies and legislation (Year 3) to enable the development of Biosphere Reserves and ensure governmental gazettelement (post Year 3)