

DIR27S2\1028

Stock-proof hedges to improve farming livelihoods and conserve Malagasy forests

The Agnalazaha forest, one of the largest remaining fragments of rare littoral forest in Madagascar, is threatened by cutting trees to make stakes by local subsistence farmers who erect fences to protect crops from free-ranging cattle. Cutting these stems degrades the forest, reduces its integrity, and impacts rare native biota. We will support farmers by providing training, equipment, and materials (including hedging plants) to plant and manage stock-proof hedges thereby protecting crops, improving livelihoods, and conserving the forest.

Section 1 - Contact Details

PRIMARY APPLICANT DETAILS

Title Dr
Name Claire
Surname Raisin
Organisation North of England Zoological Society (Chester Zoo)
Website (Work) <https://www.chesterzoo.org/what-we-do/our-zoo/biographies/dr-claire-raisin/>
Tel (Mobile) [REDACTED]
Email (Work) [REDACTED]
Address [REDACTED]
[REDACTED]
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CONTACT DETAILS

Title Mr
Name Fidy
Surname Ratovoson
Tel (Work) [REDACTED]
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Address [REDACTED]
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GMS ORGANISATION

Type	Organisation
Name	North of England Zoological Society (Chester Zoo)
Phone (Work)	[REDACTED]
Email (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]

Type	Organisation
Name	Missouri Botanical Garden (MBG)
Phone (Work)	[REDACTED]
Email (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED]

Section 2 - Title, Dates & Budget Summary

Q3. Project title:

Stock-proof hedges to improve farming livelihoods and conserve Malagasy forests

What was your Stage 1 reference number? e.g. DIR27S1\100123

DIR27S1-1643

Q4. 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.

Country 1	Madagascar	Country 2	No Response
Country 3	No Response	Country 4	No Response

Do you require more fields?

No

Q5. Project dates

Start date:

01 July 2021

End date:

30 June 2024

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

3 years, 0 months

Q6. Budget summary

Year:	2021/22	2022/23	2023/24	2024/25	Total request
Amount:	£113,590.00	£43,952.00	£19,314.00	£26,814.00	£203,670.00

Q6a. Do you have matched funding arrangements?

Yes

What matched funding arrangements are proposed?

A detailed study (value £[REDACTED] describing and evaluating the sustainability of the exploitation of fencing stakes at Agnalazaha is being supported by the Living Earth Collaborative

The Fondation pour la Biodiversité et les Aires Protégées de Madagascar (FAPBM) will support communications (annual biodiversity festival) (value £[REDACTED]

Salaries for the time of Chester Zoo (~£[REDACTED] and MBG ex-pat. staff (~£[REDACTED] are also presented as co-funding in the total budget request. Chester Zoo will also cover the travel costs of the Project Lead

throughout the duration of the project.

Q6b. Proposed (confirmed and unconfirmed) matched funding as % of total project cost (total cost is the Darwin request plus other funding required to run the project).

Section 3 - Project Summary

Q7. Summary of project

Please provide a brief summary of your project, 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 [GOV.UK](https://www.gov.uk).

Please write this summary for a non-technical audience.

The Agnalazaha forest, one of the largest remaining fragments of rare littoral forest in Madagascar, is threatened by cutting trees to make stakes by local subsistence farmers who erect fences to protect crops from free-ranging cattle. Cutting these stems degrades the forest, reduces its integrity, and impacts rare native biota. We will support farmers by providing training, equipment, and materials (including hedging plants) to plant and manage stock-proof hedges thereby protecting crops, improving livelihoods, and conserving the forest.

Section 4 - Darwin Objectives and Conventions

Q8. Objectives for the Darwin Initiative

Please indicate which of the fund objectives (listed on p.8 of the guidance) you will be addressing.

- To understand and tackle impacts of agriculture practices on biodiversity, livelihoods and climate
- To promote the responsible stewardship of natural assets
- Contributing towards reversing the increase in threats of extinction to the world's flora and fauna

Q9. Biodiversity Conventions, Treaties and Agreements

Q9a. 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)
- United Nations Framework Convention on Climate Change (UNFCCC)
- Global Goals for Sustainable Development (SDGs)

Q9b. Biodiversity Conventions

Please detail how your project will contribute to the aims of the agreement(s) your project is targeting. You should refer to Articles or Programmes of Work here.

CBD

This proposed project responds to one of the CBD main goals i.e. 'the conservation of biological diversity' by reducing degradation of a threatened vegetation type (littoral forest) that is the habitat for a very diverse and threatened fauna and flora including Eulemur cinereiceps (CR), Avahi ramanantsoavanai (VU), Haplemur medrionalis (VU), Pteropus rufus (VU), Lophotibis cristata (NT) and ten plant species known only from this site and no more than four other locations.

NBSAP

The project will contribute to the following strategic goals of Madagascar's National Biodiversity Strategy and Action Plan by reducing unsustainable harvesting of wooden fencing stakes in exceptionally rare littoral forest (thereby enabling its regeneration) and promoting woody vegetation in the landscape in the form of useful and sustainable hedges, specifically:

Goal B: "Reduce the direct pressures on biodiversity and promote sustainable use of natural resources" - Objective 5: "By 2025, the rate of degradation, fragmentation and loss of habitats/ecosystems is reduced". Objective 7: "In 2025, all zones allocated to agriculture, aquaculture and forestry are managed according to sustainable production plan, ensuring an integrated approach to biodiversity conservation"

Goal C: "Improve the biodiversity status by safeguarding ecosystems, species and genetic diversity" - Objective 11: "In 2025, 10% of terrestrial ecosystems ..., especially the areas of particular importance for biodiversity/ecosystem services, are conserved adequately in ecologically representative systems ...and managed effectively".

Objective 12: "By 2025, the extinction of endangered species is reduced and their conservation status improved"

Goal D: "Enhance the benefits withdrawn to all from biodiversity and the services provided by ecosystems" - Objective 14: "In 2025, terrestrial ecosystems including forests, ...are protected and restored....". Objective 15: "By 2025, ecosystem resilience ...are strengthened, including restoration of at least 15% of degraded ecosystems...".

UNFCCC

Madagascar's Intended Nationally Determined Contribution to the Paris Agreement includes increasing the country's carbon sink capacity by 32%, by 2030. Much of this will be achieved by meeting a pledge to restore 4 million hectares of deforested land by 2030 under its Bonn Challenge/AFR100 commitment. However, it can be challenging to establish new tree plantations without impacting agricultural production. Hedgerows present a win-win scenario for increasing trees in the landscape in a manner that is acceptable and indeed appreciated by subsistence farmers. We believe that by demonstrating the value of well managed hedgerows (and therefore woody vegetation) in Madagascar's agricultural landscapes, this project could have an impact well beyond its apparent sharp focus.

Q9c. Is any liaison proposed with the CBS / ABS / ITPGRFA / CITES / CMS / Ramsar / UNFCCC focal point in the host country?

Yes

If yes, please give details.

Personnel from MBG's Madagascar program are part of the group that develops Madagascar's NBSAP and monitors its implementation.

MBG is already in contact with the UNFCCC focal point in Madagascar, Mme Lovakanto, concerning forest restoration work elsewhere in the country, and we will engage with her throughout the project to ensure that the potential of hedges to sequester carbon in agricultural landscapes can be considered for possible upscaling. Mme Lovakanto will be among those invited to Agnalazaha in YR3 to evaluate the work.

Q9d. Global Goals for Sustainable Development (SDGs)

Please detail how your project will contribute to the Global Goals for Sustainable Development (SDGs)

Goals 1 and 2 (end poverty and hunger) by providing 35 subsistence farming families with more secure barriers that reduce the loss of their crops and reduces their investment in labour for crop protection and by providing new skills and employment to two seed collectors and ten nursery staff

Goal 4 (lifelong learning opportunities) by upskilling farmers and training women in skills that promote sustainable lifestyles that will benefit communities beyond the scope of the project

Goal 5 (gender equality) by enabling ten females to access employment in a tree nursery that is traditionally a male domain

Goal 8 (decent work and economic growth) by providing temporary employment leading to new marketable skills to 47 local people as fencers, hedge layers, seed collectors, and nurserywomen. Diversity in economic activities is strongly associated with economic resilience (e.g. Xiao and Drucker 2014).

Goal 12 (sustainable consumption and production) reducing environmental degradation of the littoral forest without compromising the economic stability of communities by providing alternative agricultural practices.

Goals 13 (combat climate change), and 15 (life on land) by reducing deforestation and degradation of rare littoral forest and installing hedgerows thereby protecting and building carbon sinks and conserving threatened habitats of key biodiversity importance.

Goal 17 (partnerships for the goals) by creating a unique partnership of organisations and social groups with complementary skills including farmers in SE Madagascar, a protected area manager in Madagascar (Missouri Botanical Garden), horticulturalists from Chester Zoo, and an expert in traditional hedging from the UK.

Section 5 - Lead Organisation Summary

Q10. Lead organisation summary

Has your organisation been awarded a Darwin Initiative or IWT Challenge Fund award before (for the purposes of this question, being a partner does not count)?

Yes





If yes, please provide details of the most recent awards (up to 6 examples).




Reference No	Project Leader	Title
25-011	Alexandra Zimmermann	Andean bears and people: coexistence through poverty reduction
23-013	Alexandra Zimmermann	Living with Tigers in Nepal: poverty reduction for HWC
EIDPO-040	Alexandra Zimmermann	The Assam Haathi Project for human-elephant conflict mitigation
16-007	Alexandra Zimmermann	Building capacities for mitigating human-elephant conflicts in Assam
17-024	Alexandra Zimmermann	Securing human–elephant co-existence in Sumatra
<i>No Response</i>	<i>No Response</i>	<i>No Response</i>

Have you provided the requested signed audited/independently examined accounts? If you select "yes" you will be able to upload these. Note that this is not required from Government Agencies.

Yes

Please attach the requested signed audited/independently examined accounts.

 [Q10 DIR27S2-1028 2019 CZ Accounts](#)
 04/02/2021
 18:16:15
 pdf 2.63 MB

 [Q10 DIR27S2-1028 2018 CZ Accounts](#)
 04/02/2021
 18:15:52
 pdf 926.25 KB

Section 6 - Project Partners

Q11. Project partners

Please list all the partners involved (including the Lead Organisation) and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development.

This section should illustrate the capacity of partners to be involved in the project. Please provide Letters of Support for the Lead Organisation and each partner or explain why this has not been included.

N.B: There is a file upload button at the bottom of this page for the upload of a cover letter (if applicable) and all letters of support.

Lead Organisation name: Chester Zoo (North of England Zoological Society – NEZS)

Website address: www.chesterzoo.org

Details (including roles and responsibilities and capacity to engage with the project): Chester Zoo is one of Europe’s leading zoological institutions, attracting (in a normal year) over 2 million visitors annually. Opened in 1931 the zoo has a long history of conservation action, and its current mission ‘Preventing Extinction’ is delivered through an integrated approach that includes conservation breeding, field conservation, research, training, behaviour change and policy influence.

Chester Zoo will take a lead role and responsibility for overall project coordination, financial management, strategic planning and liaison with international media. A dedicated team of nine full-time field conservation staff provide extensive experience in project management, including stakeholder engagement, monitoring & evaluation, and management of project finances. One of the zoo’s key focal regions for conservation activity is Madagascar, providing over 10 years of experience of working with field projects and partners and delivering conservation impact.

The organisation’s diverse operations provide access to a wide range of skilled personnel from amongst its 500+ employees, including finance, horticulture, research, marketing, and communications teams, plus access to a broad network of supporting partners and collaborators from conservation, academic, educational and commercial sectors.

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

Have you provided a cover letter to address your Stage 1 feedback? Yes

Do you have partners involved in the Project?

Yes

1. Partner Name: Missouri Botanical Garden, Madagascar Research and Conservation Program

Website address: www.mobot.mg/conservation

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

MBG is the oldest continually operating botanical garden in the United States and is a world leader in plant taxonomy and conservation. The organization's largest overseas program, built over four decades, is in Madagascar, where the organization has an annual operating budget of £1 Million, several offices, and 139 people on its payroll – all but one of which are Malagasy. Historically, among activities such as taxonomic research, botanical exploration, and in-country capacity building, the organisation has also developed a Conservation Unit that focuses on the conservation of eleven priority areas for plant conservation (see: <https://www.mobot.mg/conservation/>). One of these sites is the Agnalazaha Forest where MBG has been supporting the community-based conservation since 2003. Here, MBG supports a site-based staff of 14 people and annually engages hundreds of local people in an array of conservation activities including installation of fire breaks, forest patrols, forest restoration, environmental education, small development projects etc. MBG is recognised as the delegated manager of this site by the Malagasy government. Among conservation organisations in Madagascar, MBG is considered a leader in forest restoration, participative research to develop natural resource management plans, and in training for good governance in community associations.

Have you included a Letter of Support from this organisation?

Yes

2. Partner Name:

No Response

Website address:

No Response

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

No Response

Have you included a Letter of Support from this organisation?

Yes
 No

3. Partner Name:

No Response

Website address:

No Response

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

No Response

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

4. Partner Name: *No Response*

Website address: *No Response*

Details (including roles and responsibilities and capacity to engage with the project): *No Response*

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

5. Partner Name: *No Response*

Website address: *No Response*

Details (including roles and responsibilities and capacity to engage with the project): *No Response*

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

6. Partner Name: *No Response*

Website address: *No Response*





Details (including roles and responsibilities and capacity to engage with the project): *No Response*





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

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.

 [Q11 DIR27S2-1028 Combined letters of support](#)
 08/02/2021
 16:12:23
 pdf 2.24 MB

 [Q11 DIR27S2-1028 Cover letter and Letter of support](#)
 08/02/2021
 15:29:04
 pdf 634.82 KB

Section 7 - Project Staff

Q12. Project staff

Please identify the core staff on this project, their role and what % of their time they will be working on the project. Further information on who should be classified as core staff can be found in the guidance.

Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. These should match the names and roles in the budget spreadsheet.

If your team is larger than 12 people please review if they are core staff, or whether you can merge roles (e.g. 'admin and finance support') below, but provide a full table based on this template in the pdf of CVs you provide.

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Claire Raisin	Project Leader	10	Checked
Fidisoa Ratovoson	Project Manager	17	Checked
Chris Birkinshaw	Technical Advisor	15	Checked
Noëlson Rolland Randrianantenaina	Assistant Project Manager	54	Checked

Do you require more fields?





Yes

Name (First name, Surname)	Role	% time on project	1 page CV or job description attached?
Gregory Counsell	Technical Advisor (Behaviour change)	4	Checked
Philip Esseen	Technical Advisor (Botany & Horticulture)	2	Checked
TBC	Monitoring Officer	100	Checked

TBC	Trainer and Technical Advisor (Hedge-laying)	3	Checked
TBC	Trainer and Technical Advisor (Botany & Horticulture)	1	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.

 [Q12 DIR27S2-1028 CVs and JDs Combined](#)
 09/02/2021
 13:08:25
 pdf 3.37 MB

Have you attached all project staff CVs?

No

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

An appropriate member of Chester Zoo's Botany & Horticulture team will be selected to provide training in tree nursery skills. Staff selection will depend on other commitments and restrictions within the team at the time.

Section 8 - Problem statement

Q13. 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. For example, what are the drivers of loss of biodiversity that the project will attempt to address? Why are they relevant, for whom? How did you identify these problems?

Please cite the evidence you are using to support your assessment of the problem (references can be listed in your additional attached PDF document which can be uploaded at the bottom of the next page).

During the last decade Madagascar has tripled the area that is managed primarily for conservation through the creation of 126 New Protected Areas (NPAs) with a total area of 6.5 million hectares. Many of these NPAs are of IUCN types V or VI that include a zone where the sustainable use of natural resources is permitted (Gardner et al 2018). At the time of designation these PA types were seen as falling in a pragmatic management category for areas of natural vegetation that already provide essential resources to the impoverished communities in their vicinity. However, it is now clear that natural resources at many NPAs in these categories are not being exploited sustainably due to high levels of local demand (https://www.mobot.mg/conservation/wp-content/uploads/2020/12/0001-NRMP_E.version.pdf).

The 2745 ha Agnalazaha Forest in SE Madagascar (-23.192514, 47.710649) is one of the largest remaining fragments of rare littoral forest in Madagascar (humid forest on old sand dunes) (Consiglio et al 2006). A partial inventory of this site has recorded: 5 lemur species (including *Eulemur cinereiceps* (CR), *Avahi ramanantsoavanai* (VU) and *Haplemur medrionalis* (VU)); *Pteropus rufus* (VU); 66 bird species (notably Madagascar crested ibis *Lophotibis cristata* (NT)); 26 species of reptile; 17 species of amphibian; and 244 native plant species including 198 Malagasy endemics and ten species known only from this site and no more than four other locations (Goodman et al 2018). However, this biodiversity is at risk due to diverse threats including from local farmers who cut young tree stems to make stakes to closely fence their crops against entry by locally-owned cattle that range freely and widely to forage. Rasatatsihoarana (2007) estimated that annually ca. 1 million stakes were removed from the protected area for this purpose. The impact of the exploitation of stakes is evident with the structural degradation of the forest in zones close to fields such that the forest now resembles low-canopy coppice woodland – moreover, previously untouched parts of the forest are now being exploited to satisfy expanding demands. The fauna and flora of this degraded vegetation is less diverse than in the better quality parts. Degraded zones impact the integrity of the entire forest making it more vulnerable to the impact of catastrophic winds, wild fires and invasive alien species. However, if the pressure on the forest could be reduced then sprouts from the existing root stocks would quickly regrow to regenerate the original vegetation, as evidenced at the nearby Analalava Forest, where cessation of disturbance allowed 40% increase woody biomass in a decade (<https://www.mobot.org/conservation/>). Local livelihoods require that crops are fenced and therefore the recovery of the forest would require the provision of an effective long-term alternative that must be scalable, low-cost, and more attractive to user groups than the original products. The most desirable alternatives will not just contribute to biodiversity conservation but also improve local livelihoods: creating a win/win scenario for Malagasy people as well as their natural heritage. This project will provide just such an alternative and be a model for solutions to troubled NPAs elsewhere.

Section 9 - Method, Change Expected, Gender & Exit Strategy

Q14. Methodology

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

- How you have analysed historical and existing initiatives and are building on or taking work already done into account in project design. Please cite evidence where appropriate.
- The rationale for carrying out this work and a justification of your proposed methodology.
- How you will undertake the work (materials and methods).
- How you will manage the work (roles and responsibilities, project management tools, etc.).

Missouri Botanical Garden has supported community-based conservation at the Agnalazaha Forest for 18 years and our general approach here is informed by these past experiences.

Communication

We appreciate the importance of avoiding misunderstandings by investing in appropriate communication initially and throughout the project to all sectors of the community. Project launch will use local radio broadcasts which are cheap and effective methods of sharing information widely and will focus on the need for the project (supported by data from the LEC-funded research that is now underway). The plan, methodology and expected results will be validated by stakeholders at village meetings where feedback will be encouraged and project design modified as required. Farmers wishing to participate will self-identify then actual participants will be selected giving preference to farmers who practice close to the forest and in

zones especially impacted by free-ranging cattle: we aim to engage a “critical mass” of 35 farmers (30% of the total activity in the target zone).

Installation of barbed-wire fences

The participating farmers will be trained at workshops by a Malagasy expert fencer on best practices to safely install and maintain a robust 4-strand barbed-wire fence. Farmers will be provided with the tools and materials required to construct and maintain fences for their plots (each typically < 1 ha in area). The assistant project manager will supervise installation. While barbed wire is available for sale in Madagascar it is used in large towns to secure buildings and is never used in agricultural settings because it is unfamiliar to subsistence farmers and relatively costly. Its use is justified here to provide immediate impact and also as a mechanism to engage the farmers to install the hedge which, because of their novelty, they may otherwise be unwilling to do. In 2020 a small trial of barbed wire fencing with 5 volunteer farmers proved successful: it was not stolen, it was effective in protecting crops, and it did not create conflict.

Installation and maintenance of hedges

The main structure of the hedge will be made by inserting 1-m long living stakes of *Gliricidia*, *Moringa* and *Ficus* into the ground 20 cm apart in lines adjacent and parallel to the barbed-wire fences. The first two species are non-native but non-invasive and widely present in the landscape (used locally to provide instant “trees” over which vanilla can clamber, Havkin-Frenkel and Belanger, 2018). The stakes will be sourced locally where possible or purchased in the region and transported to Agnalazaha by lorry. Stakes of these species root easily and quickly grow large enough to be laid. Once the stakes are growing farmers will be trained by an expert hedger from the UK (stock-proof hedges are entirely unknown in Madagascar) on best practices to lay and maintain hedges (Maclean 2006), then coached to install and manage their own hedges. The “basic” hedges will be enriched by planting young plants from a diversity of species (native and non-native) selected by participants for their utility (such as providing forage, food, medicines, timber, or firewood). The list of species will be screened to exclude alien invasive species. Some plants of special biodiversity value will also be included. The plants will be produced locally by women in village nurseries who will receive expert training in nursery techniques, adapted to local conditions, by a horticulturist from Chester Zoo. A crèche will be provided at the nursery to facilitate the participation of new unmarried mothers. The women will also be trained in best practice to produce high-quality plants of locally-desirable fruit and spice trees - skills that they can use to generate extra income both during and after the project. Near project-end, the hedgers and nurserywomen will be evaluated for their skills and publicly recognised; the most skilful will be awarded a certificate acknowledging their competence. All training will be participative thereby taking into account local knowledge and designed to have clear measurable outcomes. The “buddy system” will be introduced during training so participants benefit from mutual support during work. This work will be overseen by the Project Manager.

Monitoring

See Q33

Outreach

We believe that this project will demonstrate the diverse values of hedges in Madagascar’s landscape and to share this innovation more widely the Project Manager will organise a study trip to the site for representatives of other conservation and development organisations present in Madagascar so they can appreciate the multiple benefits of hedges and understand how hedge-projects can be implemented. Project progress will be reported globally on a specially designed web-page hosted by Chester Zoo

Q15. Raising awareness of the potential worth of biodiversity

If your project contains an element of communications, knowledge sharing and/or dissemination please provide a description of your intended audience, how you intend to engage them, what the expected products/materials will be and what you expect to achieve as a result.

For example, are you expecting to directly influence policy in your host country or is your project a community advocacy project to support better management of biodiversity?

This project will not invest directly in formal awareness-raising activities concerning the value of biodiversity; however, the proposed work is founded on the key concept of “sustainable use of natural resources” – the concept on which all community-based conservation is ultimately based. The work will be presented to local stakeholders within the framework of this concept. Specifically, rather than merely presenting the work as simply another conservation activity, we will encourage the community, at village workshops, to consider the natural economies of the stock of fencing stakes, growth of this stock and the community’s need for this resource. These reflections will be informed by participative research funded from another source (the Living Earth Collaborative see <https://livingearthcollaborative.wustl.edu/>) that will support the community to quantify these parameters. On the basis of the evidence-based reflections, the need for alternative methods of crop protection will seem logical and compelling, and the understanding derived from this process will, hopefully, spill over into other aspects of protected area management such as the exploitation of timber. Thus this project is not about telling people what to think but enabling them to investigate an issue themselves (albeit within a conceptual framework that we provide) and then asking them what they think. This approach has worked elsewhere e.g. at the nearby Ankarabolava-Agnakatrika reserve where participative research on sustainable use of timber revealed that community need exceeded growth in supply by ten-fold and led the community to request support to establish plantations of alien trees (https://www.mobot.org/conservation/wp-content/uploads/2020/12/0001-NRMP_E.version.pdf)

Q16. Capacity building

If your project will support capacity building at institutional or individual levels, please provide details of what form this will take and how this capacity will be secured for the future.

In total 47 local people from the community surrounding the Agnalazaha Forest will learn new skills:

Ten local women will learn best practice for the production of tree seedlings (including, for example: making compost; propagation of seeds; nurturing of seedlings; nursery record-keeping; treatment of plant diseases; preparation of planting site; out-planting; and, after-planting care). To add value to the project and also help to ensure the future livelihoods post-project for these women, they will also be taught how to propagate high-quality plants of fruit and spice trees that are popular in this area including, for example, cloves and lychee.

Two local men will be trained as seed collectors including how to recognise mature, non-predated seeds and how seed samples can be best stored.

35 local subsistence farmers will learn how to erect effective barbed-wire fences (including treatment of support posts to slow rot and tightening the wire) and also the installation and maintenance of hedges (including planting the living stakes, laying the stems and general hedge maintenance).

In addition, the six local high school students, who will be engaged in the monitoring, will gain an understanding of how classroom knowledge can be applied in the real world: opportunities for such

learning are exceptionally rare in rural Malagasy schools.

Fifteen conservation and development organisations operating in Madagascar will also be brought to visit the project so that their staff can learn from our project and be encouraged to replicate aspects of the project within their own programmes and regions.

Q17. Gender equality

All applicants must consider whether and how their project will contribute to reducing inequality between persons of different gender. Explain how your project will collect sex disaggregated data and what impact your project will have in promoting gender equality.

Society in rural Madagascar is traditional in terms of segregation of tasks according to gender. With respect to this project, men would typically be expected to work in the proposed tree nurseries. However, nursery work is not physically very arduous and there is no intrinsic reason why this work should be limited to men. Thus, to balance the opportunities provided to men in fencing and hedge-making, we will employ only women in the nursery and, more specifically, new unmarried mothers – an especially vulnerable group. To facilitate their participation and to promote the well-being of their children, a simple crèche will be built and furnished adjacent to the tree nursery and the nurserywomen will take it in turns to look after the children while their colleagues work. Every 2-weeks the crèche will host a presentation from a local women's health professional for the mothers on best practice for childcare (nutrition, malaria prevention, hygiene to avoid childhood dysentery, vaccination, family planning etc). The approach of providing a crèche within a tree nursery is an innovation for Madagascar that will link re-greening of Madagascar with livelihood benefits for some of the most vulnerable in society. Women too will be given a voice in the choice of woody species to be used for the hedges so they can advocate for species that are useful for household medicines, food and handicrafts. The success of the project in promoting gender equality will be measured by totalling the income benefits obtained by women versus those received by men and by comparing the pre-project versus post-project conception among men of the nursery staff. We do not anticipate male backlash from the choice of women as nursery staff because MBG already supports several tree nurseries at the site that are entirely staffed by men.

Q18. Change expected

Detail the expected changes 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).

Please describe the changes for biodiversity and for people in developing countries, and how they are linked. When talking about people, please remember to give details of who will benefit and the number of beneficiaries expected. The number of communities is insufficient detail – number of households should be the largest unit used. If possible, indicate the number of women who will be impacted.

This project will have an immediate and then persistent and increasingly positive impact on the structure of the Agnalazaha Forest. Once barbed-wire fences are installed the benefitting plots will no longer require protecting using stakes extracted from the forest. Hence an immediate and direct result of this action is that ca. 300,000 woody stems (30% of the estimated annual extraction of 1M stakes), will remain growing in the forest rather than being removed annually. This annual gain will be on-going because, as the hedges mature, they will reinforce and then replace the barbed-wire fence – sometimes the barbed wire can be removed for use elsewhere. Furthermore, as the hedges mature their efficacy in crop protection (even without accompanying barbed wire fences) will become evident and the innovation will be adopted more

widely, using local capacity in hedge-making, thereby further reducing the need to remove fencing stakes from the protected forest. As pressure is reduced, the stems that previously would have been lost from the forest, will be able to mature and reconstitute this structurally degraded forest for the benefit of resident biodiversity including the white-collared lemur (CR). This recovery will improve the integrity of the entire forest thereby enabling it to better resist outside threats such as invasive alien species, catastrophic winds (the forest is in a zone impacted by cyclones) and wild fires (that frequently, stoked by sea winds, sweep over the coastal plain where Agnalazaha is located).

The current method used by farmers who live around the Agnalazaha Forest to protect their subsistence crops is time-consuming since every two years each farmer must cut, bundle and transport thousands of stakes from the forest to their plots and install them around their fields. When newly installed, these fences are effective as a stock-proof barrier, but they quickly rot and degrade, and are pushed over by cattle or the wind, thereby allowing free-ranging livestock to enter fields to eat and trample crops. In 2019 a survey of these farmers (N= 15) revealed that, on average, estimated loss of crops to cattle is 12%. These losses are significant to subsistence farmers and crop damage caused by cattle is often a cause of social conflict. Correctly installed barbed-wire fences will be 100% effective at protecting crops, as will well-managed hedges. Thus, this loss will be avoided, and with less investment in labour (although we are not currently in a position to quantify this), resulting in gains for local livelihoods (equivalent to ca. 12% of harvest) for the 35 participating farmers and their families (average family size = 7).

The impact of this project will be significant locally, in the longer term it will act as a model for the value of hedges in the wider Malagasy farming landscape thereby changing attitudes regarding how woody plants can be creatively and usefully integrated into agricultural landscapes. Hedges offer a complementary option to plantations and, if used more widely, could contribute to carbon sequestration in addition to providing multiple livelihood and biodiversity benefits.

Q19. Pathway to change

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

Our support will enable 30% of the ca. 120 farmers practicing within the buffer zone of the protected area to protect their crops from livestock, first with barbed-wire fences, and then with hedges. These barriers provide an effective alternative to fencing with stakes and hence the farmers will no longer need to exploit fencing stakes from the Agnalazaha Forest thereby saving some 300,000 stems from exploitation annually. These previously lost stems can thus remain in the forest and grow, thereby improving the structure of the forest from its current degraded state to the benefit of resident biodiversity. Furthermore, since the proposed new methods of protecting crops will be more effective than the current method, crop damage due to foraging cattle will be reduced and thereby subsistence livelihoods will be improved. Ultimately, post-project, the hedges will also provide diverse useful products for the local community thereby further improving livelihoods. Also, post-project we anticipate that the 35 farmers will constitute a critical mass sufficient to influence their peers in the advantages of hedges.

Q20. Exit Strategy

State how the project will reach a stable and sustainable end point, and explain how the outcomes will be sustained, either through a continuation of activities, funding and support from other sources or because the activities will be mainstreamed in to "business as usual".





Where individuals receive advanced training, for example, what will happen should that individual

leave?

By the end of this project the subsistence farming community living around Agnalazaha Forest will appreciate the value of hedges over fencing stakes and will have the skills to install stock-proof hedges themselves. Hedges will have become one of the accepted operations of subsistence farmers in this landscape and will have become part of "business as usual". Non-participating farmers will have tangible proof that hedges are effective and will not require additional incentives to adopt them. We anticipate that barbed wire (due to its high cost), is unlikely to be purchased post-project by farmers unless it is subsidised, but rather, hedges will be established without recourse to this material - perhaps relying on fences made from stems extracted from existing hedges to protect crops until the next hedges become functional. Post-project access to the plants required for the hedges will be ensured as the hedges established during the project will provide an ample source of living stakes that can be used to establish new hedges.

As part of efforts to restore a forested landscape to the peripheral zone of Agnalazaha MBG intends to continue to support the production of young woody plants that can be used to enrich the hedges.

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

-
-  [Q20 DIR27S2-1028 Supporting information combined](#)
 -  04/02/2021
 -  18:18:47
 -  pdf 599.9 KB

Section 10 - Budget and Funding

Q21. 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 there are different templates for projects requesting over and under £100,000 from the Darwin budget.


- [Budget form for projects under £100,000](#)
- [Budget form for projects over £100,000](#)


Please refer to the Finance for Darwin/IWT Guidance for more information.

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 your completed Darwin Budget Form Excel spreadsheet using the field below.

 [Q21 DIR27S2-1028 Budget](#)

 09/02/2021

 14:37:44

 xlsx 69.02 KB

Q22. Funding

Q22a. Is this a new initiative or a development of existing work (funded through any source)?

New Initiative

Please provide details:

MBG has supported the community-based conservation of the Agnalazaha Forest since 2003. Here, as at all the other ten new protected areas where MBG works in Madagascar, the approach is based on valorising the area for local stakeholders, developing in them a sense of ownership and responsibility for the site, and empowering them to oversee the sustainable management of the natural resources in their area. Key activities in the conservation program here include promoting the sustainable exploitation of natural resources (including support for forest patrols and the provision of alternatives), control of wildfires, forest restoration, conservation awareness-raising, and research and monitoring. For some-time, the site-based team have been aware that the over-exploitation of fencing stakes from the forest is a major factor in the degradation of the forest, but we have yet to access the necessary funding to address this issue. The project proposed here is an innovation but will build on this established program of activities and be facilitated by MBG's existing positive relationship with local stakeholders and existing site-based capacity.

Q22b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work?

No

Q23. Co-financing

Are you proposing co-financing?

Yes

Q23a. Secured

Provide details of all funding successfully levered (and identified in the Budget) towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity, as well as any your own organisation(s) will be committing.

Donor Organisation	Amount	Currency code	Comments
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Living Earth Collaborative	██████	USD	For participative research to describe the current situation concerning the exploitation of stakes at Agnalazaha with the aim of fully evaluating the sustainability of the activity
Fondation pour la Biodiversité et les Aires Protégées de Madagascar (FAPBM)	██████████	MGA	For communications (annual biodiversity festival)
Missouri Botanical Garden	██████	USD	For salary and benefits for Chris Birkinshaw
Chester Zoo	██████	GBP	For salary and benefits of Claire Raisin, Philip Esseen, Gregory Counsel and other members of staff.

Q23b. Unsecured

Provide details of any co-financing where an application has been submitted, or that you intend applying for during the course of the project. This could include co-financing from the private sector, charitable organisations or other public sector schemes. This should also include any additional funds required where a donor has not yet been identified.

Date applied for	Donor Organisation	Amount	Currency Code	Comments
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response
No Response	No Response	0	No Response	No Response

Do you require more fields?

No

Section 11 - Open Access and Financial Risk Management

Q24. Outputs of the project and Open Access

Please describe the project's open access plan and detail any specific funds you are seeking from Darwin to fund this.

As delegated manager of the Agnalazaha Forest, MBG would be pleased to see a reduction of the pressure on the forest due to a decline in the exploitation of fencing stakes leading to rapid regeneration of the parts of forest that are currently degraded. While that would already be ample outcome, two elements within the project are innovative and potentially transformative and deserve to be shared more widely for evaluation by the conservation community. The first of these is the use of hedges in agricultural landscapes for diverse benefits, and the second is the provision of crèches within tree nurseries thereby enabling mothers to access this type of employment while providing health gains for their children.

Biological and social data that will enable the evaluation of these two initiatives will be collected as a routine part of monitoring but this information will also be analysed by the project team to provide an objective evaluation of these approaches that will be published in the open-access journal Madagascar Conservation and Development – that is widely read by Malagasy conservationists. In addition, and with the need for budget support from DI, towards the end of the project, Malagasy conservationists from 15 conservation organisations will be hosted at Agnalazaha to review the work in general but especially these two main innovations for possible adoption. Finally, for an international audience, the project and its progress will be shared on a web-page hosted by Chester Zoo and a specially created twitter-feed co-hosted by both organisations.

Q25. Financial Risk Management

This question considers the financial risks to the project. Explain how you have considered the risks and threats that may be relevant to the successful financial delivery of this project. This includes risks such as fraud or bribery, but may also include the risk of fluctuating foreign exchange and internal financial processes such as storage of financial data.

Chester Zoo is committed to working ethically in line with the Bribery Act 2010 and follows guidance from the Charity Commission on counter-fraud measures. Both Chester Zoo and MBG have a zero-tolerance policy to fraud and corruption. Chester and MBG require staff, contractors and suppliers to adhere to our policies, and we hire reputable individuals and decision-making organisations that have the highest standards of integrity, honesty, traceability and transparency. All partners sign a field conservation agreement committing them to following Chester Zoo policies on bribery and corruption, modern slavery and data protection.

The project lead at Chester Zoo has experience of managing large grants and also has the support of a dedicated finance team with a demonstrated track-record of managing similar grants. There will be a transparent receipting/accounting/auditing method for all operational expenses. See also Q29.

Fluctuations in exchange rate have been considered when budgeting for this project and potential delays to international travel due to covid-related travel restrictions have been integrated when developing the implementation plan. Associated costs of covid testing and potential quarantine for non-Malagasy project staff will be covered by the relevant partner organisation.

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.

Significant capital items purchased by this project include only: a motorbike, two laptops, a video projector and a digital camera. At the end of the project these items will remain included in the inventory of equipment held by MBG and placed at the on-going disposition of the conservation team at Agnalazaha.

Q27. Value for Money

Please describe why you consider your application to be good value for money including justification of why the measures you will adopt will secure value for money.

The cost of this project is modest compared to its impact of conserving one of the largest remaining fragments of exceptionally rare littoral forest (Consiglio et al 2006) that provides habitat to a rich fauna and flora including, amongst others, the critically endangered white-collared lemur - known from just two other protected areas (Johnson et al 2020). Demonstration of the viability and value of hedges in the Malagasy agricultural landscape will bring post-project gains well beyond local gains at Agnalazaha.

Funds will be used efficiently by an on-the-ground manager with over two decades of experience, managed with high-level professional oversight, and gains will be assured through long-term commitment to this reserve.

Costs have been minimised while maintaining an effective project by recognising that accessing foreign expertise is expensive and therefore using Malagasy competencies where possible. However foreign expertise is required to teach best practice for creating stock-proof hedges and to provide training in improved nursery techniques. The former skills are not present in Madagascar and, while tree nurseries do exist, the techniques used are rudimentary. To reduce the cost of overseas inputs all implicated foreigners (except the hedger) will receive salaries as co-funding and not draw a salary from this project. The purchase of relatively expensive barbed-wire is considered necessary so as to provide immediate crop protection and thereby immediately reducing exploitation of stakes from the forest, but also to engage the subsistence farmers to invest in the hedges since they are likely to be initially sceptical about this innovation.

Section 12 - Ethics and Safeguarding

Q28. Ethics

Outline your approach to meeting Darwin's key principles for ethics as outlined in the guidance note. Additionally, are there any human rights and/or international humanitarian law risks in relation to your project? If there are, have you carried out an assessment of the impact of those risks, and of measures that may be taken in order to mitigate them?

The proposed project will meet Darwin's ethical principles, in particular:

a) MBG is the manager of the Aganalazaha Forest New Protected Area and as such will ensure that the activities proposed here will be integrated into work plans for the site – plans that will be formally validated - locally by communities, traditional leaders and regionally and nationally by the State.

b) Those participating in the project will do so voluntarily and with full understanding of their rights and responsibilities.

c) At the launch of the project, the full array of local stakeholders will be informed using appropriate methods about the proposed activity, its methods and expected results and asked to share any concerns they may have and any suggestions they would like to share. These inputs will be seriously considered and a documented response will be provided and shared both locally and on the project webpage for global transparency.

d) Health and safety guidance will be developed for each element in the project and equipment and materials will be provided to minimise risk as necessary. Health insurance will be provided by the host organisations for all staff involved in this project.

e) The project will be reviewed by Chester Zoo's Ethical Review Committee in-line with our research policy (see Supporting information in Q20).

Q29. Corruption

This question specifically considers corruption. Explain how you have considered any risk of corruption that may affect the success of this project, and how you plan to manage this. This may include financial corruption, but may also deal with gifts or inducements, or other types of dishonesty or deceit.

MBG, has been supporting community-based conservation of the Agnalazaha forest for 18 years and management here is framed by a pragmatic "Manual of Procedures" designed to promote good governance including the avoidance of corruption. This Manual of Procedures will be applied to guide the implementation of activities in the field for the project proposed here. In addition, in-country accounting associated with project expenditure will benefit from MBG's annual audit. One of the most important weapons against corruption is transparency not just in accounting but also in decision-making. For example, project participants will enjoy some important benefits (salaries, materials) and therefore their selection will need to be done through a fully transparent process, unbiased, for example, by possible family connections and friendships. To minimise risk of bias in the choice we will provide clear selection criteria and include at least one person who does not live locally on the selection committee.

Q30. 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 organisation has the following policies in place and that these can be available on request:

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	Checked
We have attached a copy of our safeguarding policy to this application (file upload below)	Checked
We keep a detailed register of safeguarding issues raised and how they were dealt with	Checked
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	Checked



We share our safeguarding policy with downstream partners	Checked
We have a whistle-blowing policy which protects whistle blowers from reprisals and includes clear processes for dealing with concerns raised	Checked
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	Checked

Please outline how you will implement your policies in practice and ensure that downstream partners apply the same standards as the lead organisation.

CZ has a safeguarding policy which all staff agree to adhere to. The policy (translated if necessary) will be shared with all project partners and visitors. The policy is reviewed annually and modified as required to address changing legal and policy requirements. Staff are provided with training so they understand and can implement the policy in the real world. The policy and associated code of conduct include procedures for reporting (including whistleblowing (see also Q20)), investigating, and discipline. CZ keeps a register of safeguarding issues arising. CZ takes bullying and harassment seriously and has a Grievance Procedure in place. The provisions of CZ's field conservation agreement, which covers behaviour in the field, will also be applied.

CZ's main partner for this work is MBG and MBG's safeguarding standards are covered by a Code of Ethics and an Employee Handbook. At the project launch, the two frameworks will be compared to assure compatibility. At project initiation staff will attend a 'toolbox talk' to be reminded of these policies and the associated rights and responsibilities. The incident reporting processes will be outlined to ensure that issues arising are fed into both organisation's registers thereby allowing policy practices to be instigated.

Please upload the lead organisation's Safeguarding Policy as a PDF

 Q30 DIR27S2-1028 CZ Safeguarding Policy. Appendix 3 - Field Programmes  04/02/2021  18:19:23  pdf 281.27 KB	 Q30 DIR27S2-1028 CZ Safeguarding Policy  04/02/2021  18:19:21  pdf 182.3 KB
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Section 13 - Logical Framework


Q31. Logical Framework


Darwin Initiative projects will be required to monitor (and report against) their progress towards their expected 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](#)

Please complete your full logframe in the separate Word template and upload as a PDF using the file upload below. Copy your Impact, Outcome and Output statements and your activities below - these should be the same as in your uploaded logframe.

Please upload your logframe as a PDF document.

 [Q31 DIR27S2-1028 LogFrame](#)

 09/02/2021

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 pdf 352.81 KB

Impact:

The Agnalazaha Forest, with its rare fauna and flora, is successfully conserved with livelihood gains for the local community

Outcome:

Degradation of Agnalazaha Forest is reversed (with participation and livelihood gains for local men and women) by providing hedges as demonstrably useful, effective, long-term and realistic alternatives for crop protection

Project Outputs

Output 1:

A critical mass (~30%) of agricultural plots within the buffer zone of protected areas are protected effectively from incursion of livestock using barbed wire fences

Output 2:

Agricultural plots of the 35 participating farmers provided with long term protection with livestock- proof hedges

Output 3:

Capacity of farmers and nursery staff is improved and they have the ability to independently create and maintain stock-proof hedges, or cultivate trees in plant nurseries, respectively.

Output 4:

A best practice model for protecting forests by developing sustainable crop protection techniques and livelihoods (i.e. use of hedges and enabling access to employment in tree nurseries for young mothers) is developed and shared with other conservation and development organisations operating in Madagascar

Output 5:

Effective project implementation based on adaptive management

Do you require more Output fields?

It is advised to have less 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.

1.1 Radio broadcast and village workshops to launch project to local community including solicitation of

- advice leading to adaptation
- 1.2 Workshop to select and orientate farmer participants
- 1.3 Workshop to train farmers in installation of barbed-wire fences with national expert
- 1.4 Installation of barbed-wire fences by participating farmers around their plots (4-strand fence for total 16 km; support posts every 2m)
- 1.5 Pre-intervention surveys to establish baseline knowledge and attitudes.
- 2.1 Selection of women (unmarried mothers) nursery staff and two seed collectors
- 2.2 Installation of tree nursery
- 2.3 Installation of crèche associated for young children of nursery staff
- 2.4 Workshop to train nurserywomen in best practice for the propagation of shrubs and trees (provided by horticulturalist from Chester Zoo)
- 2.5 Biweekly presentations on child care for nurserywomen from national experts
- 2.6 Propagation of 16,000 seedlings of plants to be used to enrich hedges
- 2.7 Purchase and transport of living stakes (= 1 m long stems of plants that root if pushed into the soil)
- 2.8 Inserting living stakes along line of barbed wire fence to create basic hedge structure
- 2.9 Out-planting seedlings of native trees within lines of living stakes (hedge enrichment)
- 2.10 Workshop and coaching of farmers to lay hedges (provided by expert hedger from UK)
- 3.1 Workshop to train participating farmers in maintenance of their hedges (provided by expert hedger from the UK)
- 3.2. Farmers coached to maintain hedges and evaluated.
- 4.1. Communication about project through social media and website
- 4.2. Organisation of study trip to Agnalazaha for representatives for an array of conservation/development NGOs
- 5.1. Workshop to define monitoring protocols and to train monitoring team in their application
- 5.2 Support for monitoring team to apply monitoring protocols
- 5.3. Workshops to share information on project progress, to identify issues arising and to modify interventions to maximise efficacy
- 5.4. Formal reporting

Section 14 - Implementation Timetable

Q32. 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 Excel spreadsheet 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.

Section 15 - Monitoring and Evaluation

Q33. Monitoring and evaluation (M&E)

Describe, referring to the Indicators above, 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 for Darwin/IWT](#)).

Well-conceived (well-focused, robust and pragmatic) and carefully implemented protocols for monitoring the social and biological impacts of the project are of fundamental importance to ensure adaptive management during project implementation but also to allow the project's innovations to be objectively evaluated by others for possible application elsewhere. The attributes that will be monitored are indicated in the logic framework but appropriate protocols for measuring these will be defined during a workshop at the start of the project by the local project team under the leadership of Gregory Counsell (social) and Chris Birkinshaw (biological). To promote standardisation of application the protocols will be written down and data collection forms provided. During the remainder of the project, monitoring will be assured by a specially recruited full-time national monitoring officer. He or she will be assisted in gathering data by six high-achieving students from the local upper school who will work during weekends and holidays. We will compensate these students for their investment in this work by supporting their studies (with equipment, supplies and school fees). Every three months the monitoring officer will be responsible for presenting a written report and oral presentation summarising the project's progress to the site-based staff, including the Project Manager. Issues arising (either positive or negative) will be discussed by the group and changes to project management explored and ultimately defined. The Project Manager will be responsible for sharing the results of monitoring and any associated reflections with the Project Leader and Technical Advisors. Where issues arise that were not anticipated then additional indicators and monitoring protocols may be required and will be developed as necessary through a virtual workshop of project participants.

Allocation of different team member's time to M&E will be as follows:

One person full-time for the duration of the project = 792 days

Six assistants 2 days per month for 3 years = 432 days

Technical Advisors (Greg Counsell + Chris Birkinshaw) = 30 days each

Total = 1284 days

Total project budget for M&E in GBP (this may include Staff, Travel and Subsistence costs)

£ ██████████

Number of days planned for M&E

1,284



Section 16 - FCDO Notifications

Q34. 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 competition in the host country.

No

Please indicate whether you have contacted your Foreign Ministry or the local embassy or High Commission (or equivalent) directly to discuss security issues (see [Guidance Notes](#)) and attach details of any advice you have received from them.

Yes (no written advice)

Please attach details of any advice you have received.

No Response

Section 17 - Certification

Q35. Certification

On behalf of the

Trustees

of

Chester Zoo, North of England Zoological Society

I apply for a grant of




£203,670.00

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 key project personnel, letters of support, budget 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

Name	Claire Raisin
Position in the organisation	Field Programme Coordinator
Signature (please upload e-signature)	 Signature  09/02/2021  14:47:06  jpg 10.33 KB
Date	09 February 2021

Section 18 - Submission Checklist

Checklist for submission

	Check
I have read the Guidance, including "Guidance Notes for Applicants" and "Finance Guidance".	Checked
I have read, and can meet, the current Terms and Conditions for this fund.	Checked
I have provided actual start and end dates for the project.	Checked
I have provided my budget based on UK government financial years i.e. 1 April - 31 March and in GBP.	Checked
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.	Checked
The application been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).	Checked
I have included a 1 page CV or job description for all the key project personnel identified at Question 12, including the Project Leader, or provided an explanation of why not.	Checked
I have included a letter of support from the the Lead Organisation and main partner organisation(s) identified at Question 11, or an explanation of why not.	Checked
I have included a cover letter from the Lead Organisation, outlining how any feedback received at Stage 1 has been addressed where relevant.	Checked
I have included a copy of the lead organisation's safeguarding policy, which covers the criteria listed in Question 30.	Checked
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.	Checked

I have included a signed copy of the last 2 annual report and accounts for the Lead Organisation, or provided an explanation if not. Checked

I have checked the Darwin website immediately prior to submission to ensure there are no late updates. Checked

I have read and understood the Privacy Notice on GOV.UK. 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 this application form, including personal data, will be used by Defra as set out in the latest copy of the Privacy Notice for Darwin, Darwin Plus and the Illegal Wildlife Trade Challenge Fund available [here](#). This Privacy Notice must be provided to all individuals whose personal data is supplied in the application form. Some information, but not personal data, may be used when publicising the Darwin Initiative including project details (usually title, lead organisation, location, and total grant value) on the GOV.UK and other websites.

Information relating to the project or its results may also be released on request, including under the 2004 Environmental Information Regulations and the Freedom of Information Act 2000. However, Defra will not permit any unwarranted breach of confidentiality nor will we act in contravention of our obligations under the General Data Protection Regulation (Regulation (EU) 2016/679).