

Applicant: **Monteros-Altamirano, Álvaro**  
Organisation: **INIAP, National Institute of Agricultural Research**  
Funding Sought: **£9,990.00**

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# **DIR27PP\1073**

**Conservation and utilization of plant genetic resources in Galapagos**

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## Section 1 - Contact Details

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### PRIMARY APPLICANT DETAILS

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Title Dr  
Name Álvaro  
Surname Monteros-Altamirano  
Tel (Mobile) [REDACTED]  
Email (Work) [REDACTED]  
Address [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

### GMS ORGANISATION

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Type	Organisation
Name	INIAP, National Institute of Agricultural Research
Phone (Work)	[REDACTED]
Email (Work)	[REDACTED]
Website (Work)	[REDACTED]
Address	[REDACTED] [REDACTED] [REDACTED]

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## Section 2 - Title & Location

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### Q3. Working title of the proposed Darwin project

Conservation and utilization of plant genetic resources in Galapagos

### Q4a. Host country (of proposed Partnership Project trip)

Ecuador

### Q4b. If this is not the intended host country for the proposed Darwin project, please justify here

Ecuador is the host country for the Partnership project.

### Q4c. Other collaborating country/ies

United Kingdom

### Q5. Is this a resubmission of a previous scoping/Partnership application?

No

## Section 3 - Partnership Project Principals & Lead Organisation Summary

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### Q6. Principals in Partnership Project work

Please give the details of the individuals (up to 2) who would be directly involved in the Partnership Project work - i.e. making a visit to a host country, or leading on the collaboration.

One page CVs must be uploaded below.

Details	Project Leader	2nd individual
Surname	Monteros-Altamirano	Kell
Forename(s)	Álvaro	Shelagh
Post held	Researcher	Research Fellow
Organisation	Instituto Nacional de INIAP, Investigaciones Agropecuarias	University of Birmingham
Have you included an one page CV?	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No

Please upload one page CVs for all Principals involved in Partnership Project work as a combined PDF.

 [CV LEADER AND PARTNERS FINAL](#)

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### Q7a. About the lead applicant organisation

Briefly discuss your expertise in sustainable use or conservation of biodiversity and/or development. Please refer to recent track record you have in this field. You may be asked to provide evidence of this track record.

The National Institute of Agricultural Research - INIAP is a public research institute created on 1959, attached to the Ministry of Agriculture and Livestock, whose primary purposes are to promote scientific research, generation, innovation, validation and dissemination of technologies in the agricultural sector and forestry production. INIAP carries out its research, development and technological innovation at national level in all four Ecuadorian geographical regions: Andes, Coast, Amazonia and Galapagos.

Álvaro Monteros-Altamirano, has an Agricultural Engineering degree from Central University of Ecuador. He obtained his MSc in Crop Science from Oregon State University and his PhD in Plant Breeding from Wageningen University. He has professional experience at INIAP for more than 20 years, in conservation, management and use of agrobiodiversity. He was also a research lecturer at IKIAM Regional Amazonian

University, from 2014 to 2015. He has authored or co-authored more than 40 publications on agrobiodiversity topics including scientific journals, catalogs, book chapters, conference proceedings and technical bulletins. Mr. Monteros has collaborated in 15 national or international projects during his career related to crop genetic diversity (on farm and ex situ) and lately on crop wild relative studies. He has been delegated for various national and international forums on agrobiodiversity.

### **Q7b. Have you obtained a letter of support from the lead applicant organisation?**

(If yes, please upload with the partner letters of support on the next page)

Yes

## **Section 4 - Project Partners**

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### **Q8. About the partner organisation(s)**

**Please list all the partners involved and explain their roles and responsibilities in the Partnership Project work. Briefly discuss your partner's expertise in sustainable use or conservation of biodiversity and/or development. Please refer to recent track record they have in this field. You may be asked to provide evidence of this track record. If there is more than 1 partner organisation, you can enter the details of more partners below. Please specify which of the partners is new to the partnership.**

<b>Partner name:</b>	University of Birmingham
<b>Website address:</b>	<a href="https://www.birmingham.ac.uk/schools/biosciences/index.aspx">https://www.birmingham.ac.uk/schools/biosciences/index.aspx</a>
<b>Details of anticipated roles and responsibilities:</b>	The primary role of the partner is to provide technical support and advice on project planning within an international policy and practice context. The partner will attend meetings in the Galapagos with the main applicant, local INIAP representative and local community stakeholders to discuss and develop the main project proposal.

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**Expertise in sustainable use or conservation of biodiversity and/or development:**

The School of Biosciences, University of Birmingham has been a leading education and research centre for plant genetic resources (PGR) conservation and sustainable use since the 1960s. It plays a leading international role in PGR-related research and policy development, and has led and participated in several collaborative projects with funding from the EU, UK government, GEF and industry. Dr. Shelagh Kell has been a professional in PGR conservation and sustainable use for more than 20 years. As Project Manager and Research Fellow at the School of Biosciences, she has managed and participated in several major international collaborative projects and contributed to research and policy development. She is Editor-in-Chief of the journal, Plant Genetic Resources: Characterization and Utilization, Chair of the Genetic Resources section of the European Association for Research on Plant Breeding, and Research Supervisor and Examiner, Centre for Environment, Development and Policy, School of African and Oriental Studies, University of London. She has supervised post-graduate students in a range of disciplines, including sustainable rural development, environmental management, and biodiversity conservation. She has undertaken a range of consultancies for international organizations such as FAO and IUCN, and has worked both within and outside Europe, including in Central and South America.

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**Name of main contact and post held:** Shelagh Kell

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**Letter of support submitted?**  Yes

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**Do you have more than one partner involved in the Partnership Project work?**

Yes

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**2. Partner Name:** Royal Botanic Gardens Kew, Millennium Seed Bank

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**Website address:** <https://www.kew.org/science>

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**Letter of Support:** The partner will provide advice on project design, along with advice on the collection, ex situ conservation and use of crop wild relative genetic resources. For the main project, the partner would be a duplicate site for seed material and make this material available for use by the CGIAR partnership.

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**Expertise in sustainable use or conservation of biodiversity and/or development:**

The Royal Botanic Gardens, Kew, is one of the world's foremost botanical institutions, with a history of plant conservation dating back over 250 years. Kew's Millennium Seed Bank is the world's largest wild species seed bank maintaining over 96,000 collections representing 40,000 species. This equates to 16% of the world's bankable seed flora. From 2011-2020 Kew was a lead partner in the Adapting Agriculture to Climate Change (Crop Wild Relatives) Project, including collaboration with INIAP and the University of Birmingham. This project banked over 3,500 crop wild relative collections of more than 350 species from 24 countries, including Ecuador. As well as being the first large-scale initiative of its type, the project was based around the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the collection and distribution of wild relative species of Annex 1 crops. As such, RBG Kew has demonstrable expertise of the multilateral system under the ITPGRFA and in partnering with seed collecting partners and international crop research institutes working towards UN SDG Goal 2 – Zero Hunger. Dr Christopher Cockel has over 20 years' experience within the conservation sector and has led the CWR project on behalf of RBG Kew since 2016.

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**Name of main contact point and post held:** Christopher Cockel, Adapting Agriculture to Climate Change Project Coordinator

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**Have you included a letter of support from this organisation?**  Yes  
 No

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**3. Partner Name:** *No Response*

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**Website address:** *No Response*

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**Details of anticipated roles and responsibilities:** *No Response*

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**Expertise in sustainable use or conservation of biodiversity and/or development:** *No Response*

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**Name of main contact point and post held:** *No Response*

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**Have you included a letter of support from this organisation?**  Yes  
 No

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**4. Partner Name:** *No Response*

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**Website address:** *No Response*

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**Letter of Support:** *No Response*

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**Expertise in sustainable use or conservation of biodiversity and/or development:** *No Response*

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**Name of main contact point and post held:** *No Response*

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**Have you included a letter of support from this organisation?**  Yes  
 No

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**5. Partner Name:** *No Response*

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**Website address:** *No Response*

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**Letter of Support:** *No Response*

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**Expertise in sustainable use or conservation of biodiversity and/or development:** *No Response*

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**Name of main contact point and post held:** *No Response*

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**Have you included a letter of support from this organisation?**  Yes  
 No

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

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**Website address:** *No Response*

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**Details of anticipated roles and responsibilities:** *No Response*

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**Expertise in sustainable use or conservation of biodiversity and/or development:** *No Response*

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**Name of main contact point and post held:** *No Response*

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**Have you included a letter of support from this organisation?**  Yes  
 No

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**Please provide a combined PDF of letters of support from the lead organisation and partner(s).**

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🔗 [letters of SUPPORT LEADER PARTNERS CORRE](#)

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## **Q9. Can you confirm that at least one of the partners have not previously been in receipt of Darwin funds from the same lead partner?**

Yes

## **Section 5 - Justification & Concept Notes**

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### **Q10. Justification of need for a Partnership Project**

**Please provide written details of why alternative funding is not available from within your own organisation or from other sources. Will matched funding be provided?**

INIAP is the leading national institution on agricultural research in Ecuador and has more than 60 years of research experience in continental Ecuador. Since 2015, INIAP initiated the research centre, Centro de Bioconocimiento el Socabón in San Cristóbal Island, Galapagos. This centre currently holds approximately 160 accessions of local crops (from San Cristobal island) but collections and research on plant genetic resources need to expand to other islands. Due to the COVID-19 pandemic the national budget from INIAP to the research centre for 2020 and 2021 has been approximately 12000 USD per year plus 63000 USD in personnel contracts, which support the maintenance of the ex situ collections but not support research. Currently there are no other national or international funding sources available for research or in situ/ex situ conservation of crops or crop wild relative (CWR) diversity for Galapagos, despite their social, economic, cultural and historical and biogeographical importance. Any effort to support the conservation and study of local crop and CWR diversity is worthwhile to better understand local adaptations, improve local food security and sustainability, and conserve this genetic material for use in global crop adaptation research in the face of climate change and other stresses.

### **Q11. Concept note for the Partnership Project**

**This question concentrates on the Partnership Project work and should demonstrate the objectives of the project including:**

- objectives of the visit
- what work (including research, remote communications or other collaborations) has been carried out prior to applying for this project
- what work will be carried out under the Partnership Project – please see the guidance for advice on what type of activity can be funded
- evidence of the proposed partners' intentions to collaborate in your Partnership Project work

The partnership project budget would support 3 objectives:

1. To cover travel expenses from continental Ecuador to Galapagos by the lead applicant to make preliminary contacts with relevant institutions (local representatives from the Ministry of Environment (Parque Nacional Galapagos), Ministry of Agriculture, Agencia de Regulación para la Bioseguridad y Cuarentena para Galapagos, Charles Darwin Foundation, farmer leaders and others to be identified) to raise awareness and interest of a potential project to safeguard and conserve local crops and CWR and also to visit prospective seed collection sites on the 4 inhabited islands of interest for 5 priority target CWR species.



2. To conduct a local workshop in Galapagos with relevant collaborators identified in objective 1, to present the concept note for a potential expanded Darwin Project and develop the project proposal in a participatory manner.

3. To cover travel expenses of one of the representatives from the partner organizations from the UK to Galapagos to attend the workshop and make short site visits.

Communication exchanges from INIAP, UoB and RBG Kew have already been conducted to build this collaboration. If the partnership project is awarded, this online communication will continue permanently to shape the final project. As mentioned above, one partner representative will visit potential partners and selected locations before the workshop. After personal visits to potential local partners, web-based contact will continue.

## **Q12. Concept note for the resultant project**

**This question concentrates on the full Darwin application you intend to submit after the Partnership Project and should discuss:**

- the expected Outcome and Outputs of the resultant Darwin project
- how the resultant Darwin project would meet a need in the host country (and the wider region if applicable e.g. if the proposed project would be based in a UMIC)
- how the project would contribute to any or all of the Conventions and Treaties supported by Darwin, including the SDGs
- how the project will contribute to sustainable development in the country concerned
- briefly explain the proposed partner role(s) in the resultant Darwin project
- briefly the expected role of the Partnership Project travellers in the resultant Darwin project.

OUTCOME: Improved in situ-ex situ conservation and sustainable utilization of endemic crop wild relatives (CWR) and local crops in Galapagos ensuring farmers engage and participation in the process.

OUTPUT 1: Inventories of native CWR and local crop varieties, including their distribution, threat, conservation and utilization status and identification of target populations for complementary in situ and ex situ conservation.

OUTPUT 2: Enhanced in situ and on farm conservation, establishment of community seed banks, and repatriation of crops to the communities.

OUTPUT 3: Description of the variation of selected CWR and local crops based on morphological, agronomical, molecular, nutritional and functional characterization.

OUTPUT 4: Ex situ conservation of target population samples in INIAP and at the MSB, RBG Kew.

OUTPUT 5: Community value chains established to enable the development of new products and the diversification of income streams based on local biodiversity.

The local agrobiodiversity of the Galapagos Islands has not been adequately described previously. Many important wild relatives of crops such as tomato and cotton have been collected in the past, but the current in situ status of the populations is unknown. In addition, local agriculture is based largely on imported crops from the continent, which can jeopardize the conservation of endemic genetic diversity in the Islands by undetermined outcrossing.

Ecuador as part of the CBD aligns this project with the Sustainable Development Goal No. 2 Zero hunger, target 2.5; and No. 15, Life on Land, target 15.6. Also as Party to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) the project would address its commitments regarding

conservation, sustainable use of local crop diversity and Farmers' Rights along with promoting local communities in their roles as custodians and innovators of PGRFA as stated by the Nagoya Protocol.

This project intends not only to conserve and study local genetic diversity of Galapagos but also to offer economic development to local farmers based on new products from biodiversity that could be commercialized. And also by the diversification of local agricultural lands which could provide agricultural products to tourist based businesses currently using products imported from the continent.

The University of Birmingham, will provide technical support and advice on activity planning and preparation of associated documentation, publications and other outputs; support for the organization and facilitation of project workshops and meetings; and contributions to capacity building. MSc and PhD students may also be involved in the project.

Royal Botanic Gardens, Kew, Millennium Seed Bank will provide scientific advice and safety duplication of seed and herbarium materials collected under this potential project.

INIAP, as project leader will conduct overall project coordination in close collaboration with the UK partners. INIAP will seek involvement of institutional personnel willing to contribute with their scientific capacity to the project activities. Additionally, INIAP will coordinate with all in-country partners by varying degrees to all project activities, publications and other outputs.

## Section 6 - Costs

### Q13. Costs

Provide a detailed breakdown of costs to be funded by the Darwin Initiative in GBP.

	Project Leader	Second individual	Total
<b>Airfare including travel to airport</b>	£ [REDACTED]	[REDACTED]	[REDACTED]
<b>Visas and other travel documents</b>	£0.00	£0.00	£0.00
<b>Daily subsistence rate per day</b>	£ [REDACTED]	[REDACTED]	
<b>Number of days subsistence claimed (max 30 days per traveller)</b>	[REDACTED]	[REDACTED]	
<b>Total daily subsistence claimed (please provide details below)</b>	£ [REDACTED]	[REDACTED]	[REDACTED]
<b>Workshop costs (please provide details below)</b>			£ [REDACTED]

Other costs (please provide details below)

£ [REDACTED]

Total request from Darwin (must not exceed £10,000)

£ [REDACTED]

#### Additional details to support the figures above

	Project Leader	Second individual
Average expected subsistence rate per day	[REDACTED]	[REDACTED]
Number of days subsistence claimed	[REDACTED]	[REDACTED]

#### Workshop costs

Please provide further details on your workshops costs (N/A if not relevant).

Expenditures for the workshop participants:

- Travel restitution expenses (inter-islands) for participants coming to the workshop.
- Flight and subsistence for INIAP specialist from continent.
- Renting a location for the workshop (local hotel) plus food service for the attendees

#### Other costs

Please provide further details on Other costs e.g. subscription to communications platforms, purchase of tablets for local partners etc (N/A if not relevant).

This budget includes travel inter-islands for the project leader and the local INIAP-Galapagos representative.

Inter-island expenses for the local INIAP-Galapagos representative are included under this budget.

This budget will also cover COVID-19 tests (until they are necessary). Note: Currently to get into Galapagos by flight updated PCR COVID-19 tests are required for locals and foreigners. The extent of vaccination for the Ecuadorian population is still unknown for 2021.

Note: The project leader, prior to the workshop, plan to visit Galapagos 4 times. The objective of these trips will be to visit the inhabited islands: San Cristobal, Isabela, Santa Cruz and Floreana (one island visited per trip) to talk to local representatives of potential partners. Additional visits to potential locations of occurrence of CWR throughout these or other islands–prospection- will be seek. One local Galapagos´ INIAP representative will join these inter-island trips and his expenses will be covered.

## Section 7 - Timetable & Activities

**Q14. Provide anticipated dates of travel (start and finish) and activities to be**

## undertaken on your trip.

**N.B.: this question is specifically about your travel plans – your dates and specific milestones during travel – NOT your timetable to Stage 1 application. Your application will be considered ineligible if this section does not specifically cover your planned Partnership Project trip.**

Date	Milestone
05 July 2021	START
26 July 2021	Project leader goes to San Cristóbal Island, Galapagos; meets local representatives and visits potential collecting locations at National Park Area.
13 September 2021	Project leader goes to Isabela Island, Galapagos; meets local representatives and visits potential collecting locations at National Park Area.
15 November 2021	Project leader goes to Santa Cruz Island, Galapagos; meets local representatives and visits potential collecting locations at National Park Area.
10 January 2022	Project leader goes to Floreana Island, Galapagos; meets local representatives and visits potential collecting locations at National Park Area.
10 February 2022	Workshop is conducted.
14 February 2022	Preparation of final proposal
<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>
<i>No Response</i>	<i>No Response</i>
31 March 2022	FINISH

## Q15. In what year would you expect to submit the full Darwin project application?

Ⓒ Round 29

## Section 8 - Certification

### Q16. Certification

On behalf of the  
company

of

INIAP, National Institute of Agricultural Research

**I apply for a grant of**





£9,990.00

**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 Partnership 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 uploaded CVs for project principals
- I have uploaded letters of support from the lead application organisation and the partner(s)

Checked

<b>Name</b>	MARCO ANDRÉS ANDRADE ESPINEL
<b>Position in the organisation</b>	Executive Director, INIAP
<b>Signature (please upload e-signature)</b>	 <a href="#">SIGNATURE INIAP EXEC DIRECTOR darwin-r27-partnership-</a>  18/01/2021  20:36:16  pdf 406.59 KB
<b>Date</b>	18 January 2021

## Section 9 - Submission Checklist

### Checklist for submission

	Check
<b>I have read the Guidance Notes for Main projects as well as the Guidance for Partnership Projects and am satisfied that this concept would be eligible for a main project application.</b>	Checked
<b>I have read, and can meet, the current Terms and Conditions for this fund.</b>	Checked
<b>I have provided anticipated start and end dates for my Partnership Project trip.</b>	Checked
<b>I have checked that my budget is complete and correctly adds up.</b>	Checked
<b>My application has been signed by a suitably authorised individual (clear electronic or scanned signatures are acceptable).</b>	Checked

I have included one page CVs and letters of support as required. Checked

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

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I have read and understood the Privacy Notice on GOV.UK. Checked

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**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 main traveller/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.**

Unchecked

### **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 organization, 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).