Department for Environment Food & Rural Affairs

Submit by Tuesday 1 December 2015

DARWIN INITIATIVE APPLICATION FOR GRANT FOR ROUND 22: STAGE 2

Please read the Guidance Notes before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required.

Information to be extracted to the database is highlighted blue. Blank cells may render your application ineligible

ELIGIBILITY

1. Name and address of organisation

(NB: Notification of results will be by email to the Project Leader in Question 6)

Applicant Organisation Name:	University of Exeter, UK
Address:	Centre for Ecology and Conservation University of Exeter, Cornwall Campus
City and Postcode:	Penryn TR10 9FE
Country:	UK
Email:	
Phone:	

2. Stage 1 reference and Project title

Stage 1 Ref: **3166**	**Title (max 10 words):** Improving marine biodiversity and livelihoods of coastal communities in Principe

3. Project description (not exceeding 50 words)

(max 50 words)
Improved food security, increased gender equality and poverty reduction in fisheries dependent coastal communities in the island of Principe (Sao Tome & Principe), through a participatory social-ecological approach to enhance marine biodiversity and resource management.

4. Country(ies)

Which eligible host country(ies) will your project be working in? You may copy and paste this table if you need to provide details of more than four countries.

Country 1: Sao Tome and Principe	**Country 2:**

5. Project dates, and budget summary

Start date: 01/04/16		**End date:** 30/09/18		**Duration:** 2.5 years
Darwin request	**2016/17** **£121,310**	**2017/18** **£107,367**	**2018/19** **£66,510**	**Total request** **£295,187**
Proposed (confirmed & unconfirmed) matched funding as % of total Project cost				**41%**
Are you applying for DFID or Defra funding? (Note you **cannot** apply for both)		**DFID**		

6. Partners in project. Please provide details of the partners in this project and provide a CV for the individuals listed. You may copy and paste this table if necessary.

Details	**Project Leader**	**Project Partner 1**
Surname	Broderick	Crosby
Forename (s)	Annette	Rachel
Post held	Associate Professor of Marine Conservation	Manager
Organisation (if different to above)	University of Exeter (**UoE**)	**Principe Trust Foundation**, Sao Tome and Principe
Department	Centre for Ecology and Conserva-tion	
Telephone		
Email		

Details	**Project Partner 2**	**Project Partner 3**
Surname	Lopes	Palmer
Forename (s)	Plácida	Silvino
Post held	Management Unit Coordinator	Regional Secretary
Organisation (if different to above)	**UNESCO's Biosphere Reserve Management Unit**, Principe	Directorate-General Agriculture and Fisheries, Sao Tome and Principe Government
Department		**Regional Fisheries Department**
Telephone		
Email		

7. Has your organisation been awarded a Darwin Initiative award before (for the purposes of this question, being a partner does not count**)? If so, please provide details of the most recent awards (up to 6 examples).**

Reference No	**Project Leader**	**Title**
EIDPO046	B.J. Godley	Linking marine biodiversity conservation and fisher prosperity through marketplace innovation
20-009	B.J. Godley	Delivering an MPA network for fisheries and biodiversity for Central Africa (Republic of Congo and Gabon)
19-026	A.C. Broderick	Implementing a Darwin Initiative Biodiversity Action Plan for Ascension Island
18-001	B.J. Godley	Darwin Sustainable Artisanal Fisheries Initiative (Peru)
17-005	B.J. Godley	Darwin Marine Biodiversity Action Plan for Gabon
14-051	B.J. Godley	In Ivan's Wake: Darwin Initiative BAP for the Cayman Islands

8a. If you answered 'NO' to Question 7 please complete Question 8a, b and c.

N/A

9. Please list all the partners involved (including the Lead Institution) 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 written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.

Lead institution and website:	**Details (including roles and responsibilities and capacity to lead the project): (max 200 words)**
University of Exeter (UoE), UK www.exeter.ac.uk **Dr Annette Broderick** http://biosciences.exeter.ac.uk/staff/index.php?web_id=annette_broderick **Prof Brendan Godley** http://biosciences.exeter.ac.uk/cec/staff/index.php?web_id=brendan_godley **Dr Ana Nuno** www.ananuno.net	The **UoE** team comprises Dr Ana Nuno (**Interdisciplinary Conservation Science**), Dr Annette Broderick (**Marine Conservation**) and Prof Brendan Godley (**Conservation Science**). **UoE** has been working on marine biodiversity conservation in Central Africa since 2003. At the invitation of Principe Trust, a team from UoE **(led by Dr Ana Nuno, proposed Darwin Research Fellow and current Darwin plus fellow on successful Cayman Islands project)** conducted a scoping visit to Principe in March 2015 to: (1) assess marine conservation priorities; (2) identify key stakeholders; and (3) provide recommendations for conservation, sustainable development and poverty alleviation. Multiple stakeholders: fishers, fish traders, NGO staff, government policy-makers (**Biosphere Reserve**, **Fisheries Department, President of Principe**), were consulted. Scoping report: http://tinyurl.com/nbt93c2 **UoE** will oversee/manage the project and lead on technical training covering biological/socio-economic sampling, GIS and data management/analysis, working to strengthen marine management. The team has vast **interdisciplinary** experience working in areas of high natural resource reliance and focusing on **social and ecological** considerations with stakeholder engagement (e.g. artisanal fisheries in Congo; bushmeat hunting in Tanzania). We have an established track record of leading projects funded by Darwin, Defra and FCO. All investigators will be involved extensively throughout the planning, delivery and monitoring of the project.
Have you included a Letter of Support from this institution? ***Letter A. Dean of Strategic Development (Lead Institution)***	**Yes**

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
Principe Trust Foundation, Principe https://www.facebook.com/Pr%C3%ADncipe-Trust-305010556356808/	**Principe Trust Foundation** promotes sustainable development and conservation initiatives on the island. Areas of intervention include: conservation (terrestrial and marine), education, economic development and community engagement. The Foundation works in close partnership with the Biosphere Reserve management unit to ensure that conservation and community development initiatives build synergies. The existing marine conservation work of the Foundation will be greatly enhanced by the activities of this project. **Principe Trust Foundation** is the lead host partner in Principe and will act as facilitator, key liaison with other local partners and fund administrator for the local side of the project. Principe Trust will provide logistical support in-country and will be responsible for the **coordination and implementation of livelihood interventions**, leading on community engagement and day-to-day management of livelihood components, providing staff to support research initiatives. We have their full support and this project application resulted from the scoping study conducted by the UoE team at the invitation of the Principe Trust. Staff were involved in identifying research, conservation and development priorities and designing the bid. **Principe Trust Foundation** will **disseminate key findings** and reports to different target audiences and will be responsible for the facilitation of meetings with relevant Government institutions.

Have you included a Letter of Support from this institution? ***Letter B. Programme manager of Principe Trust (Partner 1)***	**Yes**

Partner Name and website where available:	Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)
UNESCO's Biosphere Reserve, Principe http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/africa/sao-tome-and-principe/the-island-of-principe/ https://www.facebook.com/principereserva	The Principe Autonomous Region has opted for a sustainable model of development, and key to this was obtaining recognition of the island as a **UNESCO Biosphere Reserve** in 2012. This provides the framework for conservation, environmental and economic development work on the island. The work sits under direct responsibility of the **President of the Principe Autonomous Region**, thus providing full endorsement for activities that will serve to improve the wellbeing and livelihoods of the local population while conserving biodiversity. The **Biosphere Reserve** team work closely with the Principe Trust Foundation and are supportive of this application. Staff will be involved in training, workshops and research initiatives and were consulted during the scoping visit and have been involved in identifying research, conservation and development priorities and designing the second stage bid. **Biosphere Reserve staff** will play an important role integrating findings from the project into community awareness activities (e.g. schools, government, industry); and will facilitate meetings with relevant Government institutions to increase awareness and provide **policy recommendations**. The involvement of the Biosphere Reserve will be a key in ensuring that the studies and research emerging from the project are integrated into **future initiatives** on the island.

Have you included a Letter of Support from this institution? ***Letter C. Coordinator of Principe's Biosphere Reserve Management Unit (Partner 2)***	**Yes**

Partner Name and website where available:	**Details (including roles and responsibilities and capacity to engage with the project): (max 200 words)**
Regional Fisheries Department, Directorate-General Agriculture and Fisheries, Sao Tome and Principe Government Website not available	The **Regional Fisheries Department** is responsible for providing licenses and support to fishers while ensuring that fishing is conducted within the law. As a government department, it is under resourced and staff have had limited opportunities to develop their skills or had the resources to undertake studies on the situation of the fisheries. They have demonstrated a keen desire to be part of the project in order to **strengthen its own capability and that of fishers and fish traders**. The Department has a good working relationship with the Principe Trust Foundation and the Biosphere Reserve. Fisheries are very important to the economy of Principe and thus the **Fisheries Department** will play a key role in the project. Staff will be involved in training, workshops and research initiatives. Staff were involved in identifying capacity and marine management priorities and designing the bid. They will play a lead role in the engagement with fishers and **development of co-management institutions** given their long-standing relationships with fisheries-dependent communities. **Fisheries Department** staff will also play an important role in highlighting the governmental processes underpinning the implementation of improved fisheries practices across the region, and disseminating findings and facilitating meetings with other relevant Government institutions.

Have you included a Letter of Support from this institution? ***Letter D. Regional Secretary of Directorate-General Agriculture and Fisheries, Sao Tome and Principe Government (Partner 3)***	**Yes**

10. Key Project personnel

Please identify the key project personnel on this project, their role and what % of their time they will be working on the project. Please provide 1 page CVs for these staff, or a 1 page job description or Terms of Reference for roles yet to be filled. Please include more rows where necessary.

Name (First name, surname)	Role	Organisation	% time on project	1 page CV or job description attached?
Annette Broderick	Project Leader	UoE	10	Yes
Brendan Godley	Co-I	UoE	5	Yes
Ana Nuno	Darwin Research Fellow	UoE	100	Yes
Alexandra Marques	Conservation Programme Manager	Principe Trust	20	Yes
An Bollen	Marine Biodiversity	Principe Trust	20	Yes

	Coordinator			
TBC*	Field Officer	Principe Trust	100	Yes
TBC*	Field Officer	Principe Trust	100	Yes
TBC*	Field Officer	Principe Trust	100	Yes
TBC*	Field Officer	Fisheries Department	100	Yes
TBC*	Field Officer	Biosphere Reserve	100	Yes

***Please see Terms of Reference for the positions in Appendix I.**

11. Problem the project is trying to address

Please describe the problem your project is trying to address in terms of biodiversity and (essential for DFID projects) 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?

If your project is working on an area of biodiversity or biodiversity-development linkages that has had limited attention (both in the Darwin Initiative portfolio and in conservation in general) please give details.

(Max 300 words)

Sao Tome and Principe consists of two islands off the coast of Central Africa. An agrarian economy sees reliance on subsistence farming and fisheries, with 62% of the population below the poverty line. With a high degree of endemism, the island of **Principe** is of global biodiversity significance and designated a **UNESCO Biosphere Reserve** (2012). The island hosts great marine biodiversity: **coral reefs, important fish species** (including threatened billfish, sharks and rays), five **sea turtle** species, **seabirds** and **cetaceans**. However, investment in resources, local expertise and conservation has predominantly been given to terrestrial ecosystems and almost entirely in Sao Tome (e.g. one DI project in Sao Tome; EIDPR080).

Around 17% of the national population are involved in fisheries; a major source of protein for households in Principe (>70% animal protein intake), with over 500 of the 7,500 population being licensed small-scale fishers (**Fig.1A**) versus 2500 of 171,000 inhabitants in Sao Tome. The key issues identified by fishers and traders (a traditionally female role; **Fig.1B**), during our scoping study, were: access to equipment; infrastructure; conflict; alternative livelihoods and government support. Households headed by women (29% of all households in Principe) are especially vulnerable as women suffer from unequal access to education and job opportunities (e.g. female illiteracy 186% higher than male).

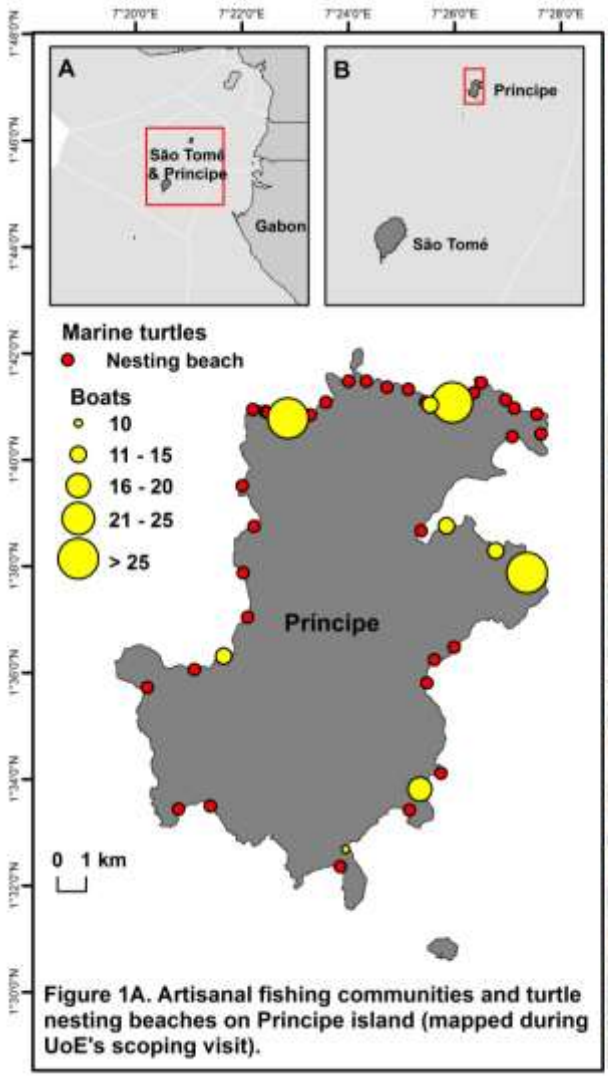

Figure 1A. Artisanal fishing communities and turtle nesting beaches on Principe island (mapped during UoE's scoping visit).

Figure 1B. Traditional gender roles in fishing communities, Principe: harvest by men and preparation/commercialisation by women.

Principe has recently attracted several investors, leading to **rapid change** in development, population growth and tourism. Overfishing and habitat degradation are also directly affecting the **viability of fishing livelihoods**. Ongoing changes in fishing practices suggest dynamic responses to socio-economic drivers, resulting in **illegal wildlife harvest and international trade** of protected species contravening **CITES** regulations (e.g. shark fins and turtle products). Low conservation capacity, poor monitoring/enforcement, and lack of evaluation are major barriers to effective resource management; this has crucial implications for biodiversity, food security and human wellbeing, given fisheries dependence.

12. Biodiversity Conventions, Treaties and Agreements

Which of the conventions supported by the Darwin Initiative will your project support? Note: projects supporting more than one convention will not achieve a higher scoring

Convention On Biological Diversity (CBD)	**Yes**
Nagoya Protocol on Access and Benefit Sharing (ABS)	No
International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)	No
Convention on International Trade in Endangered Species (CITES)	**Yes**

12b. Biodiversity Conventions

Please detail how your project will contribute to the objectives of the convention(s), treaties and agreements your project is targeting. You may wish to refer to Articles or Programmes of Work here. Note: No additional significance will be ascribed for projects that report contributions to more than one convention

(Max 200 words)

Work will assist Sao Tome and Principe to contribute to all **CBD's Strategic Goals**: (A) mainstreaming biodiversity, focusing on environmental awareness (**Aichi 1**), integration of biodiversity considerations in development and poverty alleviation (**Aichi 2**), sustainable fisheries management (**Aichi 4**); (B) reducing direct pressures on marine biodiversity and promoting sustainable use (**Aichi 6**); (C) improving the status of biodiversity focusing on enhanced management (**Aichi 11**), reduction of exploitation of threatened sea turtles and sharks (**Aichi 12**); (D) enhancing benefits from biodiversity through sustainable livelihood opportunities with a focus on women and the poor (**Aichi 14**); (E) enhancing implementation through participatory planning and capacity building (**Aichi 18 & 19**).

Sao Tome and Principe has not signed **CITES** (accession in 2001) but the Government is considering ratification; this project will inform decisions by providing evidence about the international trade of endangered species and support legislative changes to enable **CITES** ratification. We will provide ecological and socio-economic information about harvest and trade, enhancing efforts to reduce depletion of species listed in **CITES Appendix I** (e.g. marine turtles) and **CITES Appendix II** (e.g. manta rays, hammerhead sharks). Anecdotal information reported by fishers about ongoing international trade of these species was gathered during scoping visit.

12c. Is any liaison proposed with the CBD/ABS/ITPGRFA/CITES focal point in the host country?

☒Yes ☐No if yes, please give details:

The project is in line with government priorities in delivering its commitments under these conventions. The **President of Principe**, an autonomous region, fully supports the implementation of the project as is outlined in **Letter of Support E**. The focal point for CBD and CITES is the Department of Environment, Sao Tome and Principe Government. A meeting was held with the focal point during the scoping visit, with follow up communications by email.
Focal point: Arlindo de Ceita Carvalho (Director of Department of Environment)

13. Methodology

Describe the methods and approach you will use to achieve your intended outcomes and impact. Provide information on how you will undertake the work (materials and methods) and how you will manage the work (roles and responsibilities, project management tools etc.).

(Max 500 words – this may be a repeat from Stage 1, but you may update or refine as necessary. Tracked changes are **not** required.)

The following **priorities** were identified in **consultation among stakeholders**, with methods and approaches **designed collaboratively** and **capacity building for local staff and communities** underpinning work for all project components (details provided in *Q20: **Capacity building***):

A. Fisheries practices, vulnerability and resilience
Participatory research in ≥5 fishing communities (representing >500 households) will be

undertaken to identify, test and implement **community-led interventions**. Surveying >150 households (50% female interviewees), using a **mixed methods approach:** focus groups, household surveys, landing surveys, participatory market chain analysis and SWOT (strengths, weaknesses, opportunities and threats) analysis on livelihood alternatives. Data will include mapping fishing locations, gear types and socio-economics of trade. We will: (1) identify barriers to sustainability, ongoing and emerging threats to viability of fishing livelihoods, and drivers behind illegal/unsustainable fishing; (2) support **integration of findings into interventions** for increasing **fisheries profitability** (e.g. access to storage facilities, markets, reduction of catch losses) and **bycatch-reduction;** (3) **implement best practice** across the island; (4) identify and cost potential **monitoring, control and surveillance** (e.g. VMS, AIS, community-based) to address emerging industrial fisheries and illegal fishing; (5) **provide evidence for policies** that promote sustainable use whilst achieving conservation (e.g. supporting **CITES** ratification).

B. Co-management for enhanced governance and biodiversity conservation will be supported by promoting **functional, inclusive and equitable** co-management of marine resources that **empowers the voice of fishers and fish traders**. Acknowledging the complexities and time-scale for establishing strong and fair institutions, this takes a multipronged approach with a focus on community participation/workshops to: (1) **identify key values and requirements** to support improvement of current practices; (2) facilitate the establishment of **co-management committees**; (3) and support the production of **operational plans** in collaboration with regional stakeholders (with long-term support guaranteed by Fisheries Department, Biosphere Reserve and Principe Trust).

C. Assessment and evaluation for adaptive management

Interventions will be carefully monitored and evaluated using multiple **social and ecological context-relevant indicators** to **demonstrate impact** and **inform management**. An integrated **monitoring and evaluation** strategy will explicitly account for social-ecological feedbacks and produce robust **evidence-based** recommendations. Before, during and after implementation, local communities will be involved in decision-making through **participatory approaches** to identify feasible and desirable interventions, develop trust in project goals and findings as well as incentivize engagement and buy-in, promoting greater uptake of project recommendations and compliance with subsequent decisions. To carefully account for **expected wider-scale effects**, we will also assess **ecosystem services trade-offs** (use of marine vs. terrestrial resources) and **social spill-over effects** to observe the role of improved fisheries practices and co-management in facilitating these insular effects.

Project management, roles and responsibilities: Key project components are presented below (**Fig.2**), with partners involved throughout. Project management will be coordinated by **UoE** with an interdisciplinary, Portuguese-speaking, **experienced Darwin Fellow (Dr Ana Nuno**) and the **Principe Trust**. **Five Darwin Field Officers** will be employed. These will be local residents and female candidates will be encouraged to apply. The project will be managed by a steering group comprised of **representatives of all partners**.

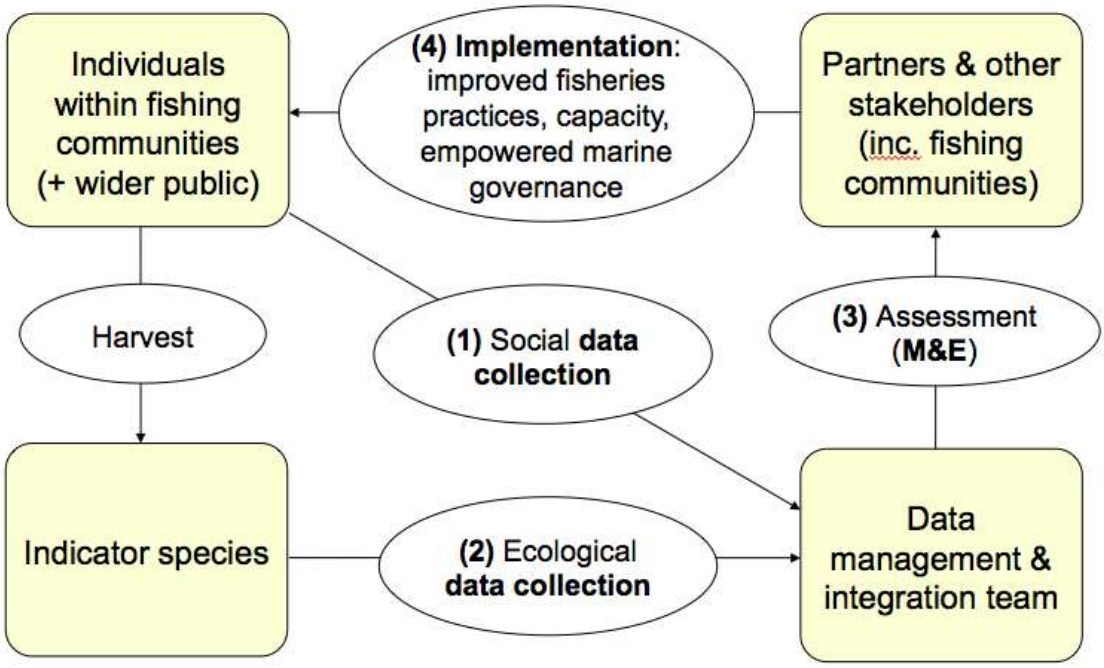

Figure 2. Conceptual model of key project components, steps and linkages.

14. 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 and b) in the long-term.

- If you are applying for Defra funding this should specifically focus on the changes expected for biodiversity conservation and its sustainable use.
- If you are applying for DFID funding you should in addition refer to how the project will contribute to reducing poverty. Q15 provides more space for elaboration on this.

(Max 300 words)

This project will benefit individuals within fishing communities, specifically reducing poverty and increasing gender equality, the wider public through improved food security, and national and international biodiversity stakeholders. Project evidence will contribute to all **CBD's Strategic Goals,** the *National Poverty Reduction Strategy*, *National Sustainable Development Plan*, and help achieve **Biosphere Reserve**'s goals by "*demonstrating innovative approaches to living and working in harmony with nature*".

To produce demonstrable impact, providing **evidence on lessons learnt**, and deliver change, producing **on-the-ground outcomes**, we will target:

Poverty alleviation and wellbeing improvement: Within >5 focal fishing communities, at least 50% of >500 households will increase their **income and wellbeing** (**fishermen and fish traders)**. Given the expected **magnification of outcomes** through market dynamics within the island, remaining inhabitants (total population: 7,500) will indirectly benefit from livelihood interventions and improved marine management. Given the potential of **expansion of project to Sao Tome**, as demonstrated in **Support Letters F and G**, effects may be **amplified** at the **medium-term** in Sao Tome (29,000 people involved in fisheries).

Biodiversity conservation: Biodiversity will be better managed and improved fisheries practices will reduce catch losses, producing increased profitability and more selective offtake. As a result of more effective and empowered fisheries **management**, bycatch and illegal take of key marine species will be reduced. Benefits from better management to biodiversity will be visible

through an increase in the diversity and abundance of indicator species **over time**. Increased **stakeholder engagement** will promote the successful implementation of co-management operational plans over time.

Mechanisms and linkages: impacts of improved marine governance on biodiversity and livelihoods will provide **evidence of dependence** on the flow of marine ecosystem services over the island. Impacts of **capacity building** and **stakeholder engagement** on biodiversity and livelihoods will demonstrate importance of **local expertise** and **legitimacy** for long-lasting project legacy and resilience.

15. Pathway to poverty alleviation – ESSENTIAL FOR DFID PROJECTS, OPTIONAL FOR DEFRA PROJECTS

Please describe how your project will benefit poor people living in low-income countries. Give details of who will benefit and the number of beneficiaries expected to be impacted by your project. 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.

(Max 300 words)

Sao Tome and Principe is designated a "least-developed" country; 62% of the population below the poverty line. GNI per capita decreased 18% 1980-2013 (2013: US$3111); income of men is more than double that of women. Households headed by women (29%) are especially vulnerable as women suffer unequal access to education and job opportunities. Around **30,000 people** (**17%** of the population) are involved in fisheries, with over 500 of the 7,500 population in Principe being licensed small-scale fishers. Low profitability, lack of access to equipment, infrastructure, conflict, alternative livelihoods and insufficient government support were key issues identified during scoping visit. **Timing** is critical as the national government has announced in its vision for development by 2030 opening up licenses to **international commercial fishery**, despite **lack of biological and socioeconomic data**. Without changes to marine governance, **economic insecurity and unemployment** will increase.

The project will contribute **Sustainable Development Goals** (SDGs), with the following at its core (key indicators using UN guidelines; http://unsdsn.org):

- **Goal 1** (***end poverty***): **Non-income poverty and deprivation** will decrease and **income** will be increased for at least 50% of >500 households (multidimensional poverty index; proportion below $1.25/day). Income and non-income poverty will be assessed in non-focal communities throughout the island to quantify wider-scale project impacts (total inhabitants expected to benefit: **7,500**).
- **Goals 2 & 14** (***food security & conserve marine resources***): Better managed local fisheries and reduced impact on other marine species, supporting regeneration of local biodiversity with expected **increased catches** by fishers in focal communities longer term.
- **Goals 4, 5 & 8** (***gender equality & lifelong learning & inclusive sustainable economic growth***): **Capacity building, training, environmental awareness and personal development** for local communities, targeting women, young people, schoolchildren (500+) and poor households, as well as **direct employment** by the project for **5 local Darwin officers**.

16. Exit strategy

State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave?

(Max 200 words)

We aim to improve local capacity for self-sufficient marine management over the long-term, based on our experiences in other coastal areas (e.g. Gabon, Congo), while acknowledging that building long lasting capacity and institutions is a slow process. We will thus focus on fostering **local stewardship**, produce **tangible improvements** and **communicate benefits** clearly. Enhanced partnerships between communities and other stakeholder groups will ensure the visibility and durability of project results, providing incentives for **continued involvement**.

This project bid and project planning were developed as a **close collaboration** with multiple stakeholders, identifying **local priorities and needs** in order to produce **feasible and desired outcomes**. We anticipate that all stakeholders (communities, NGOs, government) will continue to have an interest in the long-term success of the project since its aims correspond closely to current priorities of all these groups and existing needs as evident in our scoping report (available from: http://tinyurl.com/nbt93c2).

The project will establish best practice and baseline information to be used and reassessed over time. After project completion, social-ecological monitoring practices and protocols will be used by locally trained staff, with implementation and enforcement underpinned by project partners **Principe Trust**, **Biosphere Reserve** and **Fisheries Department** (**Support Letters B, C and D).**

17a. Harmonisation

Is this a new initiative or a development of existing work (funded through any source)? Please give details (Max 200 words)

This is an **entirely new** conservation and sustainable fisheries management initiative in Sao Tome and Principe. Conservation in Principe is nascent, with main focus to date being wildlife inventories, and **little attention paid to linkages** between biodiversity, sustainable resource management and livelihoods. Nevertheless, the project builds upon clear priorities and develops existing efforts to support food security and alleviate poverty of local communities, bringing together stakeholders with common goals under a unified work programme. Partners include all key conservation and resource management stakeholders in the region (**Principe Trust, Biosphere Reserve and Fisheries Department**) and we have initiated conversations with development agencies for collaboration.

The project aims to take a participatory social-ecological approach to enhance marine resource management and diversify livelihood opportunities. As demonstrated in letters of support (**Letters E, F and H**), national stakeholders perceive this initiative as a **unique opportunity** to test the viability of such an approach within a well-defined and tractable system, monitoring outcomes for both small island communities and ecosystems. If the model proves successful, it will be expanded within the archipelago. Lessons can be learnt and used to inform national policies on marine management here and abroad, maximizing **Darwin legacy**.

17b. Are you aware of any other individuals/organisations/projects carrying out or applying for funding for similar work? No

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

18. Ethics

Outline your approach to meeting the Darwin Initiative's key principles for research ethics as outlined in the guidance notes.

(Max 300 words)

UoE has a strict **ethics policy** and seeks to promote the highest standards of scientific, scholarly and professional integrity and to give due consideration to the ethical, social and environmental issues arising from activities. All research involving animal and human participants is subject to **approval by the ethics committee** before being undertaken. Additionally:

- All work will be subject to **permissions** in Sao Tome and Principe.
- The project has been conceived, designed and will be implemented within a **strong collaborative framework**.
- Research will be **participatory**, involving fishers and fish traders. Capacity building and training needs will be identified collaboratively. Potential livelihood decisions, and best practices for social-ecological monitoring and fisheries management will be developed with local community involvement.
- **Rights, privacy and safety** of communities are held as of great importance and will be carefully considered. Given we will collect information on illegal harvest and trade, we will follow guidelines stipulating that researchers must secure free, prior informed consent from participants and emphasise that *'…researchers should not harm the safety, dignity or privacy of the people with whom they work… or who might reasonably be thought to be affected by their research'* (Code of Ethics: American Anthropological Association 2009). We will use specialized questioning techniques developed to make it impossible to directly link incriminating data to an individual (Nuno & St John 2015[1]).
- All partner organisations will apply operational policies covering all aspects of field operations and **welfare**, including: **health and safety**, discrimination, conflicts of interest, anti-bribery and fraud.
- Research will be carried out as **objectively** as possible and will be conducted within the context of poverty alleviation and biodiversity conservation and its sustainable use.

[1] Nuno A, St John F. (2015) How to ask sensitive questions in conservation: A review of specialised questioning techniques. *Biological Conservation*, 189: 5-15.

19. 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 there 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?

(Max 300 words)

This project will focus on: knowledge transfer within, and from, **fishing communities**; environmental awareness at **schools**; **policy decision-making**; and **scientific reports and peer-reviewed publications**. Materials will be produced in Portuguese and/or English (**Portuguese-speaking Darwin Research Fellow**).

Fisheries data collection and analysis will be followed by results' sharing with **fishers and traders** to enhance their understanding of fisheries co-management and emphasize the importance of their role in data collection. This will be essential for demonstrating project outcomes and co-management benefits, ultimately increasing resource stewardship, compliance and willingness to engage. This will take place through village meetings, participatory workshops and other public fora.

We will also target a range of other **key stakeholders** (government decision makers, biodiversity/planning professionals) and the general public, using targeted engagement strategies. Using a **variety of media** proved extremely successful in several previous UoE Darwin projects: project website; press releases and media; public meetings; seminars. Given the great potential of **expansion of this project to the island of Sao Tome** as well as other similar areas (**Support Letter G**), we will strive to communicate outcomes and lessons throughout project implementation and evaluation.

In conjunction with environmental awareness raising efforts of **Biosphere Reserve** and **Principe Trust,** we will contribute to information dissemination targeting local media, public areas and events, and schools (10 schools; at least 3 classes per school). **Education material** will be disseminated nationally and, potentially, in other Portuguese-speaking countries. Capitalizing on an **International Conference on Environmental Education** happening in Principe during Year 2 Q2, we will magnify the impact and dissemination potential of these outputs.

Finally, we will share knowledge with the **international conservation science community** by publishing 2-3 peer-reviewed articles and presenting in an international conference (e.g. International Congress for Conservation Biology) in collaboration with project partners, contributing to conservation science and learning within developing countries.

20. 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.

(Max 300 words)

This project has a strong emphasis on capacity building:

Capacity building and livelihood diversification (communities): For **local communities** (>150 households in >5 communities), livelihood improvement opportunities will be identified through participatory methods with **individual beneficiary households**, including female-headed households, and where possible these will be supported by local partners. Training for fishers and traders will be provided to improve fisheries profitability and safety at sea (e.g. GPS handling); village-level workshops will be organized separately for men and women in order to **empower women**. Before and during project interventions, training fishers and fish traders in best fisheries practices and monitoring tools together with participatory research will reinforce the value of **community engagement** and **traditional knowledge** in both generating an evidence base to decisions, as well as promoting the **sustainable use of shared resources**. Additionally, engagement with governmental actors will **increase knowledge of environmental rules and regulations**.

Capacity building (staff/institution): For increased local capacity and technical expertise in both NGO and Government sectors, we will develop and deliver **tailored training programmes**. For **local staff** (>10 people), training workshops will be given on: biological and socio-economic sampling methodologies, geographic information systems, data management and analysis, as identified during stakeholder consultation during scoping study. **Capacity** will be secured through the training of local people across a number of partner organisations (i.e. **Principe Trust, Biosphere Reserve, Fisheries Department**) ensuring that the legacy of the project will not depend disproportionately on any one individual or organisation. Opportunities will also arise for collaboration with local high schools and university (e.g. internships, placements), further enhancing the legacy of the project. Attendance of an **international conference** (Year 3) and a 1-month **visit to UoE** (Years 1 and 2) for representative(s) of local partners have also been agreed and budgeted for in order to **develop capacity and internationalization of partners**.

21. Access to project information

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

(Max 250 words)

As part of UoE and Biosphere Reserve's commitments to knowledge dissemination and open access, all outputs will be made available on-line and free to users whenever possible. This includes all derived and raw data on species, land cover and land use, through appropriate national, regional and global databases. Our scoping report is freely available online (http://tinyurl.com/nbt93c2) and we will continue this practice; all project documents will be available from project partners and individual researchers' websites, and from a future project website available in **Portuguese and English**. As part of **UoE's open access policy**, all scientific publications will be uploaded to Exeter's repository, Open Research Exeter (ORE), thereby reducing spend on open-access publication costs. Executive summaries in Portuguese will precede all relevant documents for increased local use of, and access to, produced information.

Contributing to Biosphere Reserve's mission of developing and implementing an **online biodiversity database** compiling all available information and wildlife records in Principe, all data will be made available for Biosphere Reserve's database for spatial management and for future initiatives and researchers.

To protect respondents' privacy, all data collected at the household or individual level during socioeconomic surveys will remain confidential but fully anonymized summaries will be available.

A **cloud storage account** (i.e. internet data sharing service, such as Dropbox) will be created to share and backup project reports, survey protocols, photos, videos and other printable materials.

Following an effective value for money approach, we will use open access and freely available tools, making the best use of resources.

22. Match funding (co-finance)

a) 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.

Confirmed:

The project has an outstanding level of matched funding in place. This already totals more than **£207,653 or 41%** of the total project cost and includes confirmed contributions from the **University of Exeter** (staff time and overheads) and the **Principe Trust** (staff, vehicles, boats, accommodation for visiting project staff).

1. <u>Lead organisation</u> (University of Exeter):

- University of Exeter Salaries £XXX
- University of Exeter Overheads £XXX

2. <u>Partner organisations</u> (Principe Trust):

- Partner Salaries £XXX
- Partner Travel & Subsistence £XXX
- Partner Operating Costs £XXX

We have sufficient funds to ensure an excellent project, but as we do in other projects, if the opportunity arises for additional support to enhance project activities we will, of course, embrace it.

22b) Unsecured

Provide details of any matched funding where an application has been submitted, or that you intend applying for during the course of the project. This could include matched funding from the private sector, charitable organisations or other public sector schemes.

Date applied for	Donor organisation	Amount	Comments
N/A	N/A	N/A	N/A

22c) None

If you are not intending to seek matched funding for this project, please explain why.

Not applicable.

PROJECT MONITORING AND EVALUATION

MEASURING IMPACT

23. LOGICAL FRAMEWORK

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

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: Poverty alleviation, food security, and sustainable use of marine biodiversity through improved marine governance in Principe. (Max 30 words)			
Outcome: To enhance livelihoods and long-term sustainability of artisanal fisheries sector in Principe through the implementation of improved fisheries practices and co-management in fisheries-dependent communities.	**0.1** **Earnings** for **at least 50% of >500 fishing households in >5 communities** increased by **10%** by **year 3** with fishermen and female fish traders reporting the increase (baseline established in **year 1** and re-examined as part of the project in **years 2 and 3**).	**0.1** Data collection (household surveys, focus groups and workshops to generate baseline and monitor effects of interventions) and analysis, peer-reviewed publication and reports.	Government Departments remain amenable to implementation of fisheries co-management approach. **Note 1:** Fisheries Department Biosphere Reserve Management Unit are project partners and members of the steering group, and have been involved in identifying priorities, will benefit from capacity building and expansion of staff team and will remain fully involved throughout the project.
	0.2 **Wellbeing improved for at least 50% of >500 fishing households in >5 communities** with both fishermen and female fish traders reporting the increase (domains to be measured using locally defined indicators: material, security, and freedom of choice and action) by **year 3** (baseline established in **year 1** and re-examined as part of the project in **years 2 and 3**).	**0.2** Data collection (household surveys, focus groups and workshops to generate baseline and monitor effects of interventions) and analysis, peer-reviewed publication and reports.	Fishing communities and government retain commitment to sustainable use of marine resources. **Note 2**: We will keep engaging communities throughout project implementation and evaluation given its participatory approach. See also **Support Letter E** by the President of Principe, and **Support Letter D** by the Department of Fisheries.
	0.3 Committees for co-management of marine resources established with inclusive and equitable	**0.3** Production of information synthesis document; biodiversity monitoring data; technical reports; records of	Country remains politically stable. **Note 3**: Sao Tome and Principe has been

	representation of fishers and fish traders and management initiatives implemented (e.g. through no-take, seasonal closures, gear restrictions) in at least **5** (60%) of Principe's fisheries-dependent communities by **Q2 year 3**. Current baseline is **zero**.	feedback and stories of change from local stakeholders involved in the project; records of feedback and stories of change from community members. Press releases.	relatively stable for several decades and is generally peaceful, with most visits trouble-free, as stated by FCO. Retention of key staff and/or ability to appoint replacements. **Note 4:** Key staff have been involved since the scoping visit and through continuous training and reassessment we will ensure skills are transferable between and within organizations and that staff are able to disseminate skills in future training.
	0.4 Harvest of key marine species (subject to illegal take and bycatch) by **≥5** focal fishing communities (**>15 fishers** per community surveyed) will be quantified and significantly reduced by **year 3 as a result of co-management and community interventions** (baseline SMART reduction targets established in **year 1** and re-examined as part of the project **in years 2 and 3**).	**0.4** Data collection (household and fisher surveys and stranding records), peer-reviewed publication and reports.	There are no major economic shocks, or anthropogenic or natural disasters affecting fish yield and community capacity to prioritize fisheries management.
	0.5 By year 3, information on **artisanal and emerging industrial fisheries sectors** (magnitude, seasonality, distribution, methodology target/non-target species, effort, dependency, threats and challenges, trade and value) and **best practices** is available to policy-makers, stakeholders and community groups**.** The number of datasets, action plans for priority species and number of peer-review publications from the current **zero** baseline will increase incrementally in **years 1, 2 and 3.**	**0.5** Production of information synthesis document; reports from meetings with the government; government documents; press releases; number of public presentations, and peer-reviewed publication.	

	0.6 By **Q2 year 3**, local staff including **at least 5 Darwin Field Officers** (women will be encouraged to apply for positions) have the capacity to support and advise biodiversity and social monitoring, environmental awareness raising and management of marine resources in Principe (baseline capacity level established in **year 1** and re-examined as part of the project in **years 2 and 3**).	**0.6** Training materials and sessions; capacity assessment records to evaluate understanding, impact and application of training content and key principles; records of feedback from local staff and local communities. **NB To support the monitoring of sustainable development goals, data will be disaggregated by income, gender, age, race, ethnicity, migratory status, disability, and geographic location, when appropriate and relevant.** **NB All data and reports will be disseminated to project partners for future management.**	
Outputs: **1. Fisheries and livelihoods:** Increased understanding of artisanal fisheries and resilience of sector to threats and best practices for reduction of fishing pressure on non-target species of conservation concern achieved through participatory research and community-engagement.	**1.1** Household specific livelihoods opportunities, capacity and training needs are identified through participatory methods with individual beneficiary households by **Q2 year 1** and training delivered by **Q3 year 1**, specifically targeting female-headed households (**> 15 fishers and 15 females in at least 5 focal fishing communities**). **1.2** Knowledge of current barriers to sustainability, needs and threats for fishers identified through participa-	**1.1** Household socio-economic surveys. List of needs and gaps produced. Workshops delivered, training course attendance (number of attendees and certificates), number of practical training days. Training material produced. **1.2** Household socio-economic surveys. Reports including findings from scenario analysis and threat ranking	Project partners, especially fishing communities and Government, retain commitment to sustainable use of marine resources. **Note 2 above** Target local community groups remain willing to explore and engage in research and co-management of fisheries. **Note 5:** <u>We will place a great emphasis on project communication so that everyone involved understands importance of their participation and is aware of project steps, outcomes and fisheries management benefits.</u>

	tory research in **year 1** (>**5 (60% of) fishing communities; >30** participants per community + key regional and national stakeholders) through household surveys and individual participant surveys, targeting fishers (male) and traders (female).	exercises produced by end of **year 1 Q4**.	Target local community groups remain willing to explore and engage in livelihood diversification and enhancement activities. **Note 2 above**
	1.3 Spatiotemporal patterns of resource use, seasonality (effort), target species, and distribution data for baselines and future comparison are assembled by **Q4 year 1** (**> 15 fishers in >5 fishing communities**) and re-examined as part of the project in **years 2 and 3**.	**1.3** Workshop reports, interim field reports, Darwin project website. Synthesis document/report and recommended actions on artisanal fisheries produced by end **year 2 Q4**.	The success of the pilot interventions will be sufficient enough to encourage more families, especially women-headed households, to trial interventions. **Note 5 above**
	1.4 Increased understanding of fisheries practices and drivers behind illegal/unsustainable fishing activities understood and **multiple interventions explored** (e.g. better access to storage facilities, markets, and reduction of catch losses) and **bycatch-reduction strategies identified** through participatory research by **end of year 1**.	**1.4** Surveys / focus groups. Report on take and trade of **CITES** listed species by **year 2 Q2**.	
	1.5 Interventions are identified, costed, and assessed by stakeholders and local partners and a **minimum of 2 piloted** to reduce bycatch and harvest of protected resources during **year 2**. Best strategies are disseminated and implemented in	**1.5** Synthesis and recommendations report for government regarding fisheries practices by the **end of year 2, Q4**.	

	>5 fishing communities by the **end of year 2.** **1.6** Increased understanding of linkages between livelihoods (e.g. dependency, vulnerability, loss evaluation) and fisheries practices by **year 3 Q2**.	 **1.6** Peer reviewed publication on livelihoods and fisheries by **year 3 Q2.**	
2. Establishing co-management: to improve long-term sustainability of fisheries sector through improved and empowered governance.	**2.1** Co-management establishment process initiated by **Q1 year 2** and participatory research to identify key values and requirements supports development of fisheries co-management strategies (e.g. fisheries co-operatives) in **>5 fishing communities** by **Q2 year 2**. **2.2** Baseline fisheries and social data following establishment of co-management process are assembled by **Q2 year 2** (**>5 fishing communities**) and re-examined as part of the project in **year 3**. **2.3** Co-management committees identified for > 5 fishing communities by **year 2 Q4** and terms agreed by end of **year 3, Q1**. Current baseline is **zero**. **2.4** Co-management annual operational plans are developed, and reviewed by stakeholders and local/national partners by **year 3.** Current baseline is **zero**.	**2.1** Workshop reports, interim field reports, Darwin project website. **2.2** Fisheries, data collection (household surveys, focus groups and workshops to generate baseline and monitor changes). **2.3** Workshop reports, interim field reports, Darwin project website. **2.4** Annual operational plans. Workshop reports, interim field reports, Darwin project website. Evaluation reports from local partners.	Project partners, especially fishing communities and Government, retain commitment to sustainable use of marine resources. **Note 2 above** Target local community groups remain willing to explore and engage in research and co-management of fisheries. **Note 5 above**

	2.5 By the end of **year 3**, preliminary lessons from co-management model are considered by the government as a marine resource management example for potential replication in other areas.	**2.5** Synthesis and recommendations report for government regarding fisheries co-management. Reports from meetings with the government; government documents and press releases.	
3. Ecosystem services trade-offs and social spill-over effects assessed across the island to observe the role of improved fisheries practices and co-management in facilitating these wider-scale insular effects.	**3.1** Ecological and resource use assessments on terrestrial and marine biodiversity (dietary recalls, landings and bycatch surveys) undertaken in **>**5 fishing communities and at least **5 non-fishing** communities (**> 30 participants** per community; 50% female). Baseline established in **year 1** and re-examined as part of the project in **years 2 and 3.** **3.2** Social assessments undertaken in **>**5 fishing communities and at least **5 non-fishing** communities (**> 30 participants** per community; 50% female) to assess impact on individuals' wellbeing (domains to be measured: material, security, and freedom of choice and action). Baseline established in **year 1** and re-examined as part of the project in **years 2 and 3**. **3.3** Increased understanding of wider scale (negative and positive) effects	**3.1** Fisheries, data collection (household surveys, focus groups and workshops to generate baseline and monitor changes). **3.2** Data collection (household surveys, focus groups and workshops to generate baseline and monitor changes). **3.3** Peer reviewed publication on wider scale effects of improved fisheries	Target local community groups remain willing to explore and engage in re-search. **Note 5 above.**

	of improved fisheries practices (interventions) and co-management synthesised by **year 3 Q1.**	practices and co-management by year 3 Q2.	
4. Capacity: Increased local capacity and technical expertise to improve marine resource governance in Principe through tailored training programmes underpinning work for **outputs 1-3.**	**4.1** Technical capacity, specific training needs of local **staff** (**at least 10 ppl**) and critical gaps in community conservation capacity assessed and training programmes finalised by **Q2 year 1**. **4.2** Training programmes for **staff** (biological and socio-economic sampling methodologies, geographic information systems, data management and analysis) **delivered by Q3 year 1** and trainee skills for marine management assessed and evaluated semi-annually with follow up training in **year 2** as required. **4.3** Potential monitoring, control and surveillance (MCS) programs (e.g. VMS, AIS, and community-based approaches) identified and cost-benefits assessed by end of **year 2, Q2** to address potential threats associated with an emerging industrial fisheries sector and illegal, unreported and unregulated (IUU) fishing effort.	**4.1** Workshops delivered (at least 5), training course attendance (number of attendees and certificates), number of practical training days, list of needs and gaps produced, training material produced. **4.2** Workshops delivered, number of participants trained, capacity assessment scores, trainees' feedback and perceptions forms. Training material provided for future use. **4.3** Report on available options, cost-benefit analysis, capacity needs.	Retention of key staff and/or ability to appoint replacements. **Note 4 above** In country partners remain willing to learn and be actively involved in the implementation of the project. **Note 6:** <u>The issues and interventions described in this proposal have been identified through a **collaborative exercise** and the bid developed in partnership.</u>
5. Project monitoring and evaluation in addition to M&E activities aiming at robust assessment of interventions de-	**5.1** Minimum of **2** steering group / committee meetings with project partners in host country each year to	**5.1** Checklists of key parameters (social, ecological, economic). Steering group / committee meetings and	

scribed in **outputs 1-4**.	discuss progress towards project activities. **Feedback** to Outputs and Activities 1-4. **5.2** Submission of half year and annual Darwin Reports**. Feedback** to Outputs and Activities 1-4.	minutes. Interim partner reports on annual progress towards agreed goals. **5.2** Darwin Reports. Darwin project website updated.	

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1.1 Engagement with fishing communities to gain permission and build on existing relationships with local partners in order to quantify and describe artisanal fisheries and their spatio-temporal extent as well as drivers and characteristics of potentially illegal harvest, domestic and international trade and bycatch.

1.2 Assess the current technical capacity, needs and critical gaps of fishers and fish traders in local communities using focus groups, participatory workshops and gap analysis.

1.3 Develop and deliver training programme tailored to meet critical local needs.

1.4 Field data collection and analysis. A mixed methods approach will be used combining specialized questioning techniques, socio-psychological scales, participatory market chain analysis and SWOT (strengths, weaknesses, opportunities and threats) analysis on livelihood alternatives. Data collected will also include mapping current use of fishing locations, gear types in both artisanal and emerging industrial fisheries as well as socio-economic data about the processing and trade sector.

1.5 Pilot and implement multiple interventions for increasing fisheries profitability based on project findings.

1.6 Monitor adoption of activities, feedback and social-ecological (perceived and actual) outcomes.

1.7 Review existing national and regional legislation regarding protection of endangered and/or protected species of wild flora and fauna.

1.8 Fisheries synthesis document prepared. Detailed knowledge of artisanal fisheries sector with associated action plans to assess baseline capture, profitability and bycatch and promote sustainability (effective marketing, reduced bycatch). To include an analysis of future opportunities within the fisheries sector or outside (ecology, economics, social) based on existing research outputs and adapted to the local context of focal communities.

1.9 Produce recommendations report for government underpinning potential legislative changes and CITES ratification, and fisheries practices.

1.10 Peer reviewed paper prepared on the artisanal fisheries of the region.

2.1 Establishing co-management mechanisms for fisheries in focal communities to increase fisher earnings, through a participatory approach.

2.2 Facilitate establishment of co-management committees, planning and monitor progress of co-management teams.

2.3 Organize awareness campaigns and disseminate environmental education information across island.

2.4 Produce findings synthesis and recommendations report about fisheries co-management.

3.1 Development of data collection protocols and survey tools.

3.2 Field data collection and analysis. Mixed-methods approach investigating wellbeing and marine and terrestrial resource use in fishing and non-fishing communities.

3.3 Synthesis report produced on social and ecological benefits of improved fisheries management for Principe island.

3.4 Peer-reviewed paper prepared on ecosystem services trade-offs and social spill-over effects of improved marine management across island.

4.1 Assess the current technical capacity, specific needs and critical gaps of local staff and additional national conservation and fisheries staff. Recruit new local staff members.

4.2 Develop training programme and materials to build capacity in social-ecological monitoring, community engagement, biodiversity conservation and fisheries management.

4.3 Deliver training to current and new local staff.

4.4 Monitor the progress of staff to deliver activities; organise training refresher sessions if needed.

4.5 Identify and assess costs of potential monitoring, control and surveillance (MCS) programs (e.g. VMS, AIS, and community-based approaches).

4.6 Produce report on available options, cost-benefit analysis and capacity needs regarding potential monitoring, control and surveillance programs.

5.1 Compile and monitor checklist of key parameters (social, ecological, economic).

5.2 Hold meetings with project partners and local stakeholders to discuss project progress and receive their input. Conduct interim evaluation workshops.

5.3 Submit Darwin reports.

5.4 Organize final project event for local stakeholders and local communities sharing feedback, stories and lessons.

24. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your project (Q1 starting April 2016)

	Activity	No of months	Year 1				Year 2				Year 3			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Output 1	**Fisheries and livelihoods:** Increased understanding of artisanal fisheries and resilience of sector to threats and best practices for reduction of fishing pressure on non-target species of conservation concern achieved through participatory research and community-engagement.													
1.1	**Engagement** with fishing communities to gain permission and build on existing relationships with local partners in order to quantify and describe artisanal fisheries and their spatio-temporal extent as well as drivers and characteristics of potentially illegal harvest, domestic and international trade and bycatch.	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
1.2	Assess the current technical capacity, needs and critical gaps of **fishers and fish traders** in local communities using focus groups, participatory workshops and gap analysis.	3		✓										
1.3	**Develop and deliver training** programme tailored to meet critical local needs.	3			✓									
1.4	**Field data collection and analysis.** A mixed methods approach will be used combining specialized questioning techniques, socio-psychological scales, participatory market chain analysis and SWOT (strengths, weaknesses, opportunities and threats) analysis on livelihood alternatives. Data collected will also include mapping current use of fishing locations, gear types as well as socio-economic data about the processing and trade sector.	21		✓	✓	✓	✓	✓	✓	✓				
1.5	**Pilot and implement** multiple interventions for increasing fisheries profitability based on project findings.	6			✓	✓	✓	✓						
1.6	**Monitor** adoption of activities, feedback and social-ecological (perceived and actual) outcomes.	24			✓	✓	✓	✓	✓	✓	✓	✓		
1.7	**Review** existing national and regional legislation regarding protection of endangered species of wild flora and fauna.	12			✓	✓	✓	✓						

1.8	**Fisheries synthesis document** prepared. Detailed knowledge of artisanal fisheries sector with associated action plans to assess baseline capture, profitability and bycatch and promote sustainability (effective marketing, reduced bycatch). To include an analysis of future opportunities within the fisheries sector or outside (ecology, economics, social) based on existing research outputs and adapted to the local context of focal communities.	9					✓	✓	✓					
1.9	Produce recommendations **report** for government underpinning potential legislative changes and **CITES** ratification, and fisheries practices.	6						✓	✓	✓				
1.10	**Peer reviewed paper** prepared on the artisanal fisheries of the region.	6									✓	✓		
Output 2	**Establishing co-management:** to improve long-term sustainability of fisheries sector through improved and empowered governance.													
2.1	Establishing **co-management mechanisms** for fisheries in focal communities to increase fisher earnings, through a participatory approach.	30					✓	✓	✓	✓	✓	✓		
2.2	Facilitate establishment of co-management committees, **planning and monitor** progress of co-management teams.	30						✓	✓	✓	✓	✓		
2.3	Organize **awareness campaign** and disseminate environmental education information across island.	3								✓				
2.4	Produce findings synthesis and recommendations **report** about fisheries co-management.	6									✓	✓		
Output 3	**Ecosystem services trade-offs and social spill-over effects** assessed across the island to observe the role of improved fisheries practices and co-management in facilitating these wider-scale insular effects.													
3.1	**Development** of data collection protocols and survey tools.	2	✓											
3.2	**Field data collection and analysis.** Mixed-methods approach investigating wellbeing and (marine and terrestrial) resource use in fishing and non-fishing communities.	21		✓	✓	✓	✓	✓	✓	✓				
3.3	**Synthesis report** produced on social and ecological benefits of improved fisheries management for Principe island.	3								✓				

3.4	**Peer-reviewed paper** prepared on social spill-over effects of improved resource governance across island.	6									✓	✓		
Output 4	**Capacity**: Increased local capacity and technical expertise to improve marine resource governance in Principe through tailored training programmes underpinning work for **outputs 1-3.**													
4.1	**Assess** the current technical capacity, specific needs and critical gaps of local staff and additional national conservation and fisheries staff. **Recruit** new local staff members.	2	✓											
4.2	**Develop training** programme and materials to build capacity in social-ecological monitoring, community engagement, biodiversity conservation and fisheries management.	6		✓	✓									
4.3	**Deliver training** to current and new local staff.	2		✓	✓									
4.4	**Monitor** the progress of staff to deliver activities; organise training refresher sessions if needed	4		✓	✓	✓		✓		✓		✓		
4.5	**Identify and assess costs** of potential monitoring, control and surveillance (MCS) programs (e.g. VMS, AIS, and community-based approaches).	2					✓	✓						
4.6	Produce **report** on available options, cost-benefit analysis and capacity needs regarding potential monitoring, control and surveillance programs.	1						✓						
Output 5	**Project monitoring and evaluation** in addition to M&E activities aiming at robust assessment of interventions described in **outputs 1-3**.													
5.1	Compile and monitor **checklist** of key parameters (social, ecological, economic).	30	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
5.2	Hold **meetings** with project partners and local stakeholders to discuss project progress and receive their input. Conduct interim evaluation workshops.	3	✓	✓		✓		✓		✓		✓		
5.3	Submit Darwin **reports**.	1			✓		✓		✓		✓			
5.4	Organize **final project event** for local stakeholders and local communities sharing feedback, stories and lessons.	3										✓		

25. Project based 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.

(Max 500 words)

Monitoring and evaluation is an intrinsic component of this project. We will use a social-ecological approach to monitor and assess **negative and positive outcomes** within an insular area of tractable population size (enhancing our ability to assess change with appropriate levels of confidence). Particularly, we will examine potential "social **spill-overs**" (i.e. communities without interventions being affected due to changes in neighbouring communities) and **trade-offs between marine and terrestrial ecosystem goods.**

Our M&E plan incorporates evidence based on the principles of: **voice and inclusion**; **appropriateness**; **triangulation**; **contribution**; and **transparency**.

Fisheries practices (Output 1): A rapid assessment regarding threats to viability of fishing livelihoods, spatiotemporal and socioeconomic patterns of resource use and wellbeing will be conducted at the project's inception. Effects on marine biodiversity/fisheries will be evaluated through repeated landings surveys (i.e. catch-per-unit-effort, species composition, size/weight) and socio-economic surveys throughout project.

Co-management (Output 2): Social and ecological information collated at the start of the project and during implementation will be used to improve the practice of existing strategies and to identify any changes in wellbeing of fish and fish traders (domains to be measured using locally defined indicators: material, security, and freedom of choice and action) and the resulting impact on empowerment and voice representation. We will use "most significant change" stories and livelihood asset indicators within participatory evaluation exercises.

Ecosystem services trade-offs and social spill-over effects (Output 3): To evaluate the role of improved fisheries practices and co-management in facilitating wider socio-economic and ecological effects across the island (total population: 1999 households representing 7,500 individuals), we will use a before-after control-impact approach to monitor changes in wellbeing, income, attitudes, norms and behaviour, selecting control households with similar demographic profiles in communities without interventions. Besides fisheries data, socio-economic and resource use surveys will also incorporate questions about the use of key terrestrial resources to account for potential trade-offs between marine and terrestrial resources.

Capacity building (Output 4): For staff, we will monitor the awareness and capacity to support conservation and fisheries management actions through assessments at different stages of the project and at the beginning and end of training sessions. For households, we will obtain feedback and undertake participatory evaluation with communities.

To support the monitoring of sustainable development goals, all data will be disaggregated by income, gender, age, race, ethnicity, migratory status, disability, and geographic location, when appropriate and relevant.

Roles & Responsibilities UoE will be responsible for all monitoring and evaluation outputs, in conjunction with the Principe Trust Foundation, training of staff conducting monitoring, data analysis, production of technical reports and co-publication of peer reviewed scientific publications. The progress of the project against key milestones, completed and planned activities, and uncertainties, risks and assumptions will be appraised by a Steering Group made up of all partner organisations (UoE, Principe Trust Foundation, Biosphere Reserve and Fisheries Department), with updates and input from key stakeholders. There will be regular communication among project partners, facilitated by email, conference calls via Skype, and the field presence of the Darwin Research Fellow in Principe.	
Total budget for M&E	£6,000
Percentage of total budget set aside for M&E	1.2%

FUNDING AND BUDGET

Please complete the separate Excel spreadsheet which provides the Budget for this application. Some of the questions earlier and below refer to the information in this spreadsheet. You should also ensure you have read the 'Finance for Darwin' document and considered the implications of payment points for cashflow purposes.

NB: The Darwin Initiative cannot agree any increase in grants once awarded.

26. Value for Money

Please explain how you worked out your budget and how you will provide value for money through managing a cost effective and efficient project. You should also discuss any significant assumptions you have made when working out your budget.

The project budget was calculated with the finance departments of each partner organisation and so reflects the essential costs to achieve the projects goals. The budget was designed in line with **DFIDs 3Es Framework**:

- **Economy**: The project has already **secured** significant matched funds (**>41% match**). This is due to the **extensive commitment** of staff time and overhead from the Lead Organization and staff time, vehicles, boats and accommodation from Project Partners. The project will employ local biodiversity and resource management staff together with international experts. At least 5 local people from Principe will be directly employed by the project.
- **Efficiency**: Project management by Lead Organization (**Portuguese-Speaking Darwin Research Fellow**) with Principe Trust will be in place to make sure project **achieves the intended results**, and is **delivered on time and within budget** whilst allowing for continuous assessment and adaptation. Technical capacity will remain on the island so that project partners will be able to **replicate** the process in other areas in the country.

- **Effectiveness**: Within >5 focal fishing communities, at least 50% of >500 households will increase their **income and wellbeing** with both **fishermen and female fish traders** reporting increases. Biodiversity in >60% of Principe's fishing communities will be managed. Given the expected **magnification of outcomes** through market dynamics within the island, remaining inhabitants (total population: 7,500) will indirectly benefit from livelihood interventions and improved marine management and biodiversity. This will be **amplified** by any impact in Sao Tome (29,000 people involved in fisheries) or overseas.

  Cost-effectiveness: Detailed M&E will be in place to robustly assess how much **impact** on poverty reduction and biodiversity conservation does the project achieve relative to **invested inputs**.

We will use these criteria to continually inform cost choices throughout the project and will **influence project partners** to do the same.

27. 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.

(max 150 words)

Capital items to be purchased with Darwin funding include:

- boat (£5,814), livelihood interventions material (£10,000), fisheries support equipment including vests and other safety gear (£5,280) and GPS trackers for fishing vessels (£1,650) to be used during fieldwork.

- computer to support analytical and spatial work (£1,500) for Darwin Research Fellow;

Given this project's emphasis on **testing interventions and implementing** best practices in fishing communities across the island, producing **on-the-ground improvements** for biodiversity and livelihoods, this material will be essential for enhancing local capacity and resources. Thanks to the in-kind contribution of local partners, **capital expenditure is 8%** with significant funds directed towards human resources, travel/field costs and training/workshops to allow the scale of the work planned. All capital items are low cost and designed to support long-term fisheries management and **will remain in-country post project** to ensure project legacy and continued monitoring and co-management efforts.

FCO NOTIFICATIONS

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise the project's success in the Darwin competition in the host country. ☐

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) **☐Yes, advice attached** **☐No**

The UK government does not have any permanent representation in São Tomé and Principe but covers it remotely from Angola:

- ***First email sent UK embassy in Angola 7th November 2015. No response.***
- ***Second email sent UK embassy in Angola 22nd November 2015. No response.***
- ***FCO website reviewed 31st November 2015 and there are no warnings against travel to country where threat from terrorism and crime rates are described as low and most visits as trouble-free.***

CERTIFICATION

On behalf of the University of Exeter

I apply for a grant of **£295,187** in respect of **all expenditure** to be incurred during the life-time of this project based on the activities and dates specified in the above application.

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 enclose CVs for key project personnel and letters of support.
- I enclose our most recent signed audited/independently verified accounts and annual reports (if appropriate)

Name (block capitals)	DR ANNETTE BRODERICK
Position in the organisation	Associate Professor of Marine Conservation

Signed**  **Date:** 1ST December 2015

If this section is incomplete or not completed correctly the entire application will be rejected. You must provide a real (not typed) signature. You may include a pdf of the signature page for security reasons if you wish. Please write PDF in the signature section above if you do so.

Stage 2 Application – Checklist for submission

	Check
Have you **read the Guidance Notes**?	**Yes**
Have you provided **actual start and end dates** for your project?	**Yes**
Have you indicated whether you are applying for DFID or Defra funding? **NB: you cannot apply for both**	**Yes**
Have you provided your **budget based on UK government financial years** i.e. 1 April – 31 March and in GBP?	**Yes**
Have you checked that your **budget is complete**, correctly adds up and that you have included the correct final total on the top page of the application?	**Yes**
Has your application been **signed by a suitably authorised individual**? (clear electronic or scanned signatures are acceptable)	**Yes**
Have you included a **1 page CV for all the key project personnel** identified at Question 10?	**Yes**
Have you included a **letter of support from the main partner organisations** identified at Question 9?	**Yes**
Have you **been in contact with the FCO** in the project country/ies and have you included any evidence of this?	**Yes**
Have you included a **signed copy of the last 2 years annual report and accounts** for the lead organisation?	**Yes**
Have you **checked the Darwin website** immediately prior to submission to ensure there are no late updates?	**Yes**

Once you have answered the questions above, please submit the application, not later than 2359 GMT on Tuesday 1 December 2015 to Darwin-Applications@ltsi.co.uk using the application number (from your Stage 1 feedback letter) and the first few words of the project title **as the subject of your email**. If you are e-mailing supporting documentation separately please include in the subject line an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). You are not required to send a hard copy.

DATA PROTECTION ACT 1998: Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites (details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.